HUMAN CYTOMEGALOVIRUS GB POLYPEPTIDE

RELATED APPLICATIONS

This application claims priority to U.S. Provisional Application No. 63/041,945 filed June 21, 2020 and U.S. Provisional Application No. 63/208,457 filed June 8, 2021. The entire content of each of the foregoing applications is herein incorporated by reference in its entirety.

REFERENCE TO SEQUENCE LISTING

This application is being filed electronically via EFS-Web and includes an electronically submitted sequence listing in .txt format. The .txt file contains a sequence listing entitled "PC72639_June2021_ST25.txt" created on June 7, 2021 and having a size of 1,427 KB. The sequence listing contained in this .txt file is part of the specification and is herein incorporated by reference in its entirety.

FIELD OF THE INVENTION

The present invention relates to human cytomegalovirus (HCMV) compositions and methods thereof.

BACKGROUND OF THE INVENTION

Human cytomegalovirus (HCMV) is a double stranded DNA virus of the β-herpesvirus family. HCMV is the leading cause of congenital and neonatal hearing loss resulting from vertical virus transmission following infection or reactivation of latent virus in pregnant women. In addition, HCMV is a common opportunistic pathogen affecting immunosuppressed patients, such as solid organ and stem cell transplant patients, AIDS patients, etc. Though development of a vaccine against HCMV has been listed as a top priority by the Institute of Medicine, none has been licensed to date.

The HCMV genome encodes several envelope glycoproteins, one of which is glycoprotein B (gB). Glycoprotein B is a fusogen that is required for virus entry into cells and an important target for neutralizing antibody (nAb) responses to infection. HCMV vaccines that incorporate gB subunit antigens have been under development. Clinical studies have shown that some gB subunit-based vaccine candidates are safe and immunogenic, though improvements in protective efficacy and durability of protection are desirable.

Accordingly, safe and effective immunogenic compositions to protect against HCMV infection are needed. Diagnostic reagents to detect immune responses to HCMV, to guide the design of gB-based HCMV vaccines, and to support the development of therapeutic or prophylactic antibodies against HCMV are also needed.

SUMMARY OF THE INVENTION

To meet these and other needs, in one aspect, the present invention relates to a polypeptide that may be included in an immunogenic composition as an antigen to elicit an immune response to HCMV.

This invention provides a mutant of a wild-type cytomegalovirus (CMV) glycoprotein B (gB) protein, which mutant comprises at least two amino acid mutations relative to the amino acid sequence of the wild-type CMV gB protein, and wherein the amino acid mutation is selected from the group consisting of:

(1) an engineered disulfide bond mutation;

(2) an additional mutation; and

(3) a combination of at least one engineered disulfide mutation and at least one additional mutation.

In one aspect, the amino acid mutations comprise a combination of at least two engineered disulfide mutations and at least one additional mutation. In another aspect, the mutant of a wild-type CMV gB protein is in the form of a trimer.

In another aspect of the invention, the engineered disulfide mutation is selected from the group consisting of: D217C and Y589C; M371C and W506C; and N524C and M684C.

In a further aspect of the invention, the additional mutation is selected from the group consisting of:

(1) substitution of YIH at positions 155-157 with GHR;

(2) substitution of W at position 240 with A;

(3) substitution of C at position 246 with S;

(4) substitution of P at position 655 with S;

(5) substitution of F at position 678 with S; and

(6) substitution of L at position 680 with T;

(7) substitution of R at position 685 with A;

(8) substitution of MIALDI at positions 648-653 with GSGKDG;

(9) substitution of R at position 693 with V;

(10) substitution of I at position 675 with S;

(11) substitution of I at positions 767 and 768 with C;

(12) substitution of D at position 703 and P at position 704 with C; and

(13) substitution of Y at position 696 and V at position 697 with C.

In another aspect of the invention, the mutant is secreted. In another aspect of the invention, the mutant is soluble.

This invention also provides a pharmaceutical composition comprising (i) a CMV gB protein mutant according to the embodiments and aspects described herein and (ii) a

pharmaceutically acceptable carrier. In one aspect, the pharmaceutical composition is a vaccine.

This invention also provides a method of reducing CMV infection in a subject comprising administering to the subject an effective amount of the vaccine set forth in the embodiments herein.

This invention also provides a method of eliciting an immune response to CMV infection in a subject comprising administering to the subject an effective amount of the vaccine set forth in the embodiments herein.

This invention also provides a method of preventing CMV infection in a subject comprising administering to the subject an effective amount of the vaccine set forth in the embodiments herein.

In another aspect, the invention relates to a polypeptide including at least one introduced amino acid mutation relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB). In some embodiments, the polypeptide includes a conformation that is not an HCMV gB postfusion conformation.

In another aspect, the invention relates to a polypeptide that binds to an HCMV gB prefusion-specific antibody.

In another aspect, the invention relates to a polypeptide that binds to a bis(aryl)thiourea compound. In some embodiments, the compound is N-{4-[({(1*S*)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl}carbamothioyl)amino]phenyl}-1,3-thiazole-4-carboxamide.

In some embodiments, the polypeptide is characterized by structure coordinates including a root mean square deviation (RMSD) of conserved residue backbone atoms when superimposed on backbone atoms described by structural coordinates of **Table 1A**, i.e., pdb file, "Table1A-prefusion_gB_121918pdb," which is incorporated herein by reference in its entirety.

In some embodiments, the polypeptide is characterized by structure coordinates including a root mean square deviation (RMSD) of conserved residue backbone atoms when superimposed on backbone atoms described by structural coordinates of **Table 1B,** i.e., the pdb file, "Table1B-refine_apply_ncs_14pdb," which is incorporated herein by reference in its entirety.

In one aspect, the invention relates to a polypeptide including at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the amino acid mutation includes a cysteine substitution.

In another aspect, the invention relates to a polypeptide including at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the amino acid mutation includes a mutation that allows a disulfide bond to form.

In another aspect, the invention relates to a polypeptide including at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the amino acid mutation includes an electrostatic mutation.

In another aspect, the invention relates to a polypeptide including at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the amino acid mutation includes a phenylalanine substitution.

In another aspect, the invention relates to a polypeptide including at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the amino acid mutation includes a leucine substitution.

In another aspect, the invention relates to a polypeptide including at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the mutation stabilizes prefusion conformation of the polypeptide, and wherein the polypeptide specifically binds to an HCMV gB prefusion-specific antibody.

In another aspect, the invention relates to a polypeptide including a cysteine at any one of the amino acid positions listed in column (ii) of **Table 2**, as compared to SEQ ID NO: 1.

In another aspect, the invention relates to a polypeptide including an amino acid substitution at any one of the amino acid positions listed in column (ii) of **Table 3**, as compared to SEQ ID NO: 1.

In another aspect, the invention relates to a polypeptide including the mutations Q98C and I653C according to the numbering of SEQ ID NO: 1. In another aspect, the invention relates to a polypeptide including the mutations T100C and S269C according to the numbering of SEQ ID NO: 1. In another aspect, the invention relates to a polypeptide including the mutations D217C and F584C according to the numbering of SEQ ID NO: 1. In another aspect, the invention relates to a polypeptide including the mutations Y242C and K710C according to the numbering of SEQ ID NO: 1. In another aspect, the invention relates to a polypeptide including the mutations Y242C and D714C according to the numbering of SEQ ID NO: 1. In another aspect, the invention relates to a polypeptide including the mutations S367C and L499C according to the numbering of SEQ ID NO: 1. In another aspect, the invention relates to a polypeptide including the mutations T372C and W506C according to the numbering of SEQ ID NO: 1. In another aspect, the invention relates to a polypeptide including the mutations S550C and D652C according to the numbering of SEQ ID NO: 1. In another aspect, the invention relates to a polypeptide including the mutations T608C and D679C according to the numbering of SEQ ID NO: 1. In another aspect, the invention relates to a polypeptide including the mutations K695C and K724C according to the numbering of SEQ ID NO: 1. In another aspect, the invention relates to a polypeptide including an amino acid sequence that is at least about 90% identical to the amino acid

sequence set forth in any one of SEQ ID NOs: 1-43, wherein the polypeptide includes a mutation as compared to SEQ ID NO: 1.

In some embodiments, the polypeptide does not include a mutation at any one of the following positions: R562, P577, S587, Y588, G592, G595, L601/H605, C610, L612, P613, Y625, Y627, F632, and K633.

In some embodiments, the polypeptide does not include the cytoplasmic tail of HCMV gB. In some embodiments, the polypeptide does not include the transmembrane region. In some embodiments, the polypeptide includes the cytoplasmic tail of HCMV gB and does not include the transmembrane region.

In some embodiments, the polypeptide does not contain an insect cell pattern of glycosylation.

In some embodiments, the polypeptide exhibits improved solubility or stability, as compared to a native gB in a postfusion conformation.

In some embodiments, the polypeptide is immunogenic.

In another aspect, the invention relates to a nucleic acid encoding the polypeptide according to any one of embodiments described herein. In some embodiments, the nucleic acid includes a self-replicating RNA molecule. In some embodiments, the nucleic acid includes a modified RNA molecule. In another aspect, the invention relates to a composition including a nucleic acid according to any one of the embodiments described herein.

In another aspect, the invention relates to a composition including the polypeptide according to any one of embodiments described herein, and further including a CMV antigen. In some embodiments, the composition further includes any one of the following polypeptides: gO, gH, gL, pUL128, pUL130, pUL131, and any combination thereof. In some embodiments, the composition further includes a diluent. In some embodiments, the composition further includes an adjuvant. In some embodiments, the composition is immunogenic. In some embodiments, the composition is for use in eliciting an immune response against cytomegalovirus.

In another aspect, the invention relates to a method of eliciting an immune response in a mammal. The method includes administering to the mammal an effective amount of the polypeptide according to any one of the embodiments described herein.

In another aspect, the invention relates to a method for reducing cytomegalovirus viral shedding in a mammal. The method includes administering to the mammal an effective amount of the polypeptide according to any one of the embodiments described herein.

In another aspect, the invention relates to a composition including a polynucleotide that may elicit an immune response in a mammal. The polynucleotide encodes at least one polypeptide of interest, e.g., an antigen. Antigens disclosed herein may be wild type (i.e., derived from the infectious agent) or preferably modified (e.g., engineered, designed or

artificial). The nucleic acid molecules described herein, specifically polynucleotides, in some embodiments, encode one or more peptides or polypeptides of interest. Such peptides or polypeptides may serve as an antigen or antigenic molecule. The term "nucleic acid" includes any compound that includes a polymer of nucleotides. These polymers are referred to as “polynucleotides.” Exemplary nucleic acids or polynucleotides of the invention include, but are not limited to, ribonucleic acids (RNAs), including mRNA, and deoxyribonucleic acids (DNAs).

In some embodiments, the composition includes DNA encoding a polypeptide or fragment thereof described herein. In some embodiments, the composition includes RNA encoding a polypeptide or fragment thereof described herein. In some embodiments, the composition includes an mRNA polynucleotide encoding a polypeptide or fragment thereof described herein. Such compositions may produce the appropriate protein conformation upon translation.

In one aspect, the invention relates to a composition that includes at least one polynucleotide encoding a polypeptide including at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB.

In some embodiments, the invention relates to a composition that includes at least one polynucleotide encoding at least one hCMV gB polypeptide or an immunogenic fragment or epitope thereof.

In some embodiments, the composition includes at least one polynucleotide encoding two or more additional polypeptides or an immunogenic fragment or epitope thereof. In some embodiments, the composition includes two or more polynucleotides encoding two or more additional polypeptides or immunogenic fragments or epitopes thereof. The one or more additional polypeptides may be encoded on a single polynucleotide or may be encoded individually on multiple (e.g., two or more) polynucleotides.

In another aspect, the invention relates to a composition that includes (a) a polypeptide including at least one introduced amino acid mutation relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB); and (b) an additional polypeptide, preferably an HCMV polypeptide, more preferably an HCMV antigenic polypeptide. The additional polypeptide may be selected from gH, gL, gB, gO, gN, and gM and an immunogenic fragment or epitope thereof. In some embodiments, the additional polypeptide is pp65. In some embodiments, the additional polypeptide may be selected from gH, gL, gO, gM, gN, UL128, UL130, and UL131A, and fragments thereof. In another aspect, the invention relates to a composition that includes (a) a polynucleotide encoding a polypeptide including at least one introduced amino acid mutation relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB); and (b) a polynucleotide encoding an additional polypeptide, preferably an HCMV antigenic polypeptide. The additional polypeptide may be

selected from HCMV gH, gL, gB, gO, gN, and gM and an immunogenic fragment or epitope thereof. In some embodiments, the additional polypeptide is HCMV pp65. In some embodiments, the additional polypeptide may be selected from HCMV gH, gL, gO, gM, gN, UL128, UL130, and UL131A, and fragments thereof.

In another aspect, the invention relates to methods of inducing an immune response in a mammal, including administering to the mammal a composition in an amount effective to induce an immune response, wherein the composition includes a polynucleotide encoding a polypeptide including at least one introduced amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB. The composition disclosed herein may be formulated in an effective amount to produce an antigen specific immune response in a mammal.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1A-1B describe two-dimensional (2D) class averages of gB conformers. **FIG. 1A** depictsthe 2D projections from a postfusion gB structure. Projection images of an electron cryomicroscopy structure of postfusion gB bound with antibody Fabs are shown. **FIG. 1B** depicts 2D class averages. Two-dimensional class averages from electron cryomicroscopy images obtained from a preparation of gB extracted from CMV virions after treatment with a fusion inhibitor and a cross-linker and binding of an antibody fragment are shown on the right. Class averaged images that do not resemble any of the reference postfusion gB two dimensional projections are identified by circles.

FIG. 2 describes glycoprotein B amino acids included in the prefusion and postfusion gB-Fab complex models from our electron cryomicroscopy structures. The amino acids that can be modeled in the electron cryomicroscopy density maps are highlighted with the domain color codes (Domain I (italics only, i.e., upper sequence (prefusion) residues 133-344; lower sequence (post-fusion) residues 133-344); Domain II (bold and underlined, i.e., upper sequence (prefusion) residues 121-132 and 345-436; lower sequence (post-fusion) residues 121-132 and 345-439); Domain III (bold only, i.e., upper sequence (prefusion) residues 86-120 and 483-550; lower sequence (post-fusion) residues 86-120 and 474-550); Domain IV (italics and underlined, i.e., upper sequence (prefusion) residues 551-641; lower sequence (post-fusion) residues 551-641); Domain V (italics and bold, i.e., upper sequence (prefusion) residues 642-724; lower sequence (post-fusion) residues 642-697); MPR (underline only, i.e., upper sequence (prefusion) residues 25-7507; lower sequence (post-fusion) no residues); TM (italics, bold, and underlined, i.e., upper sequence (prefusion) residues 751-769; lower sequence (post-fusion) no residues)). The upper and lower sequences are for the prefusion and postfusion structure models, respectively.

FIG. 3A-3B depict the fitting of models into the density maps. The models of inhibitor compound stabilized prefusion (**FIG. 3A**) and postfusion gB conformation (**FIG. 3B**) are fitted into the light gray density maps. gB components are dark gray, and SM5-1 fab components are black. Approximate position of the virus envelope as determined by the position of the TM region in the prefusion structure is indicated by black horizontal lines.

FIG. 4A-4B depict a comparison of the structures of gB in two conformations. The gB stabilized prefusion structure (**FIG. 4A**) and postfusion structure (**FIG. 4B**) are shown with one protomer to indicate the domains: I, II, III, IV, V, MPR and TM. The vertical black dashed line extending from the top of the prefusion structure represents residues missing from the model due to a less defined density map. The overall dimensions of the buildable ectodomain parts of the structure are indicated by the dashed line rectangles. The arrows indicate the direction pointed by the C-termini of the central 3-helix bundle in domain III of each conformation. The 115Å dimension on the prefusion structure (**FIG. 4A**) indicates the height of the modeled part of the ectodomain.

FIG. 5A-5D: **FIG. 5A** depicts the location of fusion inhibitor compound N-{4-[({(1*S*)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl}carbamothioyl)amino]phenyl}-1,3-thiazole-4-carboxamide in the prefusion gB model is shown in black. The chemical structure of the compound is shown in **FIG. 5D**. **FIG. 5B**: A close view of the electron density around the compound (grey transparent surface). Nearby amino acid residues are shown and domains are labeled. **FIG. 5C**: The interacting residues around the compound are shown.

FIG. 6A-6C depict a model of structural rearrangements of gB during membrane fusion. FL (and asterisks) – fusion loop. DI – domain 1. DII – domain 2. DV – domain 5. TM – transmembrane region. The light blue line depicts the viral membrane. The lines depict membrane. **FIG. 6A** (prefusion) depicts a prefusion conformation; **FIG. 6B** (Extended intermediate) depicts an extended intermediate conformation; **FIG. 6C** (postfusion) depicts a postfusion conformation.

FIG. 7A-7B depict an exemplary disulfide bond mutation to stabilize gB in a prefusion conformation. The locations of the residues participating in the disulfide bond are depicted as gray spheres in a prefusion conformation (**FIG. 7A**) and postfusion conformation (**FIG. 7B**).

FIG. 8 depicts information from Research Collaboratory for Structural Bioinformatics Protein Data Bank (RCSB PDB) file: 5CXF, Crystal structure of the extracellular domain of

glycoprotein B from Human Cytomegalovirus, from Human cytomegalovirus (strain AD169), deposited 2015-07-28; DOI: 10.2210/pdb5CXF/ pdb.
Unit Cell:

Length (Å)	Angle (°)
a = 92.183	α = 90.00
b = 133.930	β = 90.00
c = 295.376	γ = 90.00

FIG. 9 depicts sequences of gB from clinical and laboratory-adapted HCMV strains (SEQ ID NO: 110 - SEQ ID NO: 111). Additional sequences may be found in an amino acid sequence alignment of gB from clinical and laboratory-adapted HCMV found in S4 Fig., from Burke et al., PLoS Pathog. 2015 Oct 20;11(10):e1005227. According to Burke et al. sixty HCMV gB sequences from clinical and laboratory-adapted strains, downloaded from NCBI's RefSeq data base, were aligned and analyzed using ClustalW2 and ESPript 3.x. Identical residues are shown as white text on red background, and similar residues are highlighted in yellow in S4 Fig. of Burke et al., said S4 Fig. and the description thereof is incorporated herein by reference in its entirety.

FIG. 10 depicts the amino acid sequences for SEQ ID NOs: 1-43 and SEQ ID NOs: 47-106.

FIG. 11 depicts the dose-dependent IgG responses in both gB1666 and wild type gB (Towne) immunized mice. The graph shows that 10 out of 10 mice immunized with wild type gB DNA, and 9 out of 10 mice immunized with gB1666 DNA generated detectable anti-gB IgG titers. Mean ± SD, LLOQ = 25.

FIG. 12 depicts the structural model of engineered gB1666 (light gray, structure code:P-GB-002) is overlaid with the structural model of wild type HCMV gB (dark gray, structure code:P-GB-001). The new structure allows modeling of additional residues, 437-448 and 478-482 at the membrane distal end of the molecule and 770-779 in the transmembrane domain.

FIG. 13 depicts an example of the combinations of additional mutation combinations on the pSB1666 background that could further stabilize prefusion gB. Disulfide bond at M371, W506 could link domains II and III. Disulfide bonds at N524, M684 and F541, E681 could link domains IV and V. Mutations of negatively charged patches at E686 to hydrophobic residues could further stabilize gB in prefusion conformation.

Each domain is identified. Abbreviations: membrane proximal region (MPR), and transmembrane domain (TMD).

FIG. 14 depicts a SDS-PAGE documenting the expression and purification of recombinant gB2459 protein. The pSB2459 expression plasmid was transiently transfected into Expi293F cells. The cell pellets were harvested 68 hours after transfection, and the glycoprotein product gB2459 was purified in 25 mM HEPES pH 7.5, 250 mM NaCl, 0.02% n-Dodecyl β-D-maltoside (DDM), 0.002% cholesteryl hemi-succinate (CHS) through a series of processes of solubilization, affinity and size exclusion chromatography. This figure shows the purified protein analyzed by stain-free 4-20% SDS-PAGE under reducing conditions. The smearing of the protein band is consistent with gB2459 being heavily glycosylated. Lane M: protein marker; Lane 1: gB2457; and Lane 2: gB2459.

FIG. 15 depicts the construct pSB2459 which contains N524C and M684C mutations on the pSB1666 background. The protein product gB2459 was purified through affinity tags without the presence of any fusion inhibitors. There are prefusion classes observed in the 2D class averaged images (two classes with obvious prefusion features are indicated with the numbers 1 and 2). In addition, the prefusion gB2459 is stable over a period of a few days. Sample solution of gB2459 was stored at 4ºC, aliquots of the sample were obtained at day 1 and day 7 to prepare the negative stained grids. An images dataset was collected and processed on these two grids. For each dataset, the particle populations in the prefusion and postfusion 2D classes were counted: the ratio between prefusion and postfusion conformation was 5:1 for the sample at day 1 and 3:1 at day 7.

FIG. 16A-16D depict the design of soluble, detergent-free gB ectodomains. **FIG. 16A** shows gB ectodomain (1-707) with MPR, TM and CT regions removed. **FIG. 16B** shows gB ectodomain stabilized with additional cysteine mutations, e.g. D703C and P704C, in Domain V. **FIG. 16C** shows gB ectodomain fused to a C-terminal GCN4 trimerization motif. **FIG. 16D** shows gB ectodomain fused to a C-terminal T4 fibritin foldon domain. *Legend*: Domain I (residues 134-344) - dark gray 3D volume structure; Domain II (residues 121-133 and 345-436) - light gray 3D volume structure; Domain III (residues 97-111, 475-539 and 640-648) - top center light gray

vertical coils; Domain V (residues 649-707) - bottom internal dark gray coils (see arrow **FIG. 16B**); and rectangle – trimerization location.

FIG. 17 depicts gel-filtration profiles of purified gB ectodomains, gB2264-gB2269, analyzed by Superose 6 Increase 10/300 in 20mM HEPES pH 7.5, 250mM NaCl.

FIG. 18A – 18B depict a Negative stain EM image (**FIG. 18A**) and representative 2D class averages (**FIG. 18B**) from negative stain EM of recombinant gB2555 without bound fusion inhibitor, which show monodispersed gB proteins are suitable to use as a framework to add more stabilizing mutations towards a prefusion form of gB in the absence of inhibitor and detergents.

FIG. 19A - 19B depict a Negative stain EM image (**FIG. 19A**) and representative 2D class averages (**FIG. 19B**) from negative stain EM of recombinant gB2556 without bound fusion inhibitor, which show monodispersed gB proteins are suitable to use as a framework to add more stabilizing mutations towards a prefusion form of gB in the absence of inhibitor and detergents.

FIG. 20A – 20B depict: the purified protein analyzed on 4–20% Mini-PROTEAN® TGX STAIN-FREE® Protein Gels (Biorad) in Tris/glycine/SDS buffer under reducing conditions (arrow shows protein on gel) (**FIG. 20A**); and the image of the negatively stained protein by electron microscopy (**FIG. 20B**).

FIG. 21 depicts the dose-dependent IgG responses to gB in both gB2796 and Sanofi gB immunized mice.

FIG. 22A – 22B depict (i) **FIG. 22A**: the SEC profile comparison between gB1666 and gB1764 (the wild type CMVgB) (SEC is run on Superose6 increase 5/150 column in buffer 25mM HEPES pH 7.5, 250mM NaCl, 0.02% DDM, 0.002% CHS, 3ug/ml WAY-174865); and (ii) **FIG. 22B**: thermal stability comparison between gB1666 and gB1764 (the assay is run on Tycho NT.6 with 20ºC/min heating rate).

FIG. 23A – 23B depict (i) **FIG. 23A**: SEC profile of gB1666 with or without the inhibitor WAY-174865 (SEC is run on Superose6 increase 5/150 column in buffer 25mM HEPES pH 7.5, 250mM NaCl, 0.02% DDM, 0.002% CHS, 3ug/ml WAY-174865); and (ii) **FIG. 23B**: thermal stability comparison among gB1666, gB1666

with inhibitor and gB1764 (the assay is run on Tycho NT.6 with 20ºC/min heating rate).

FIG. 24A – 24B depict (i) **FIG. 24A**: SEC profile comparison of gB2457 and gB2459 (SEC is run on Superose6 increase 5/150 column in buffer 25mM HEPES pH 7.5, 250mM NaCl, 0.02% DDM, 0.002% CHS); and (ii) **FIG. 24B**: thermal stability comparison between gB2457 and gB2459 (the assay is run on Tycho NT.6 with 20ºC/min heating rate).

FIG. 25A – 25D depict (i) **FIG. 25A**: SEC profile comparison of gB2555 and gB2556 (SEC is run on Superose6 increase 5/150 column in buffer 20mM HEPES pH 7.5, 250mM NaCl); (ii) **FIG. 25B**: thermal stability comparison between gB2555 and gB2556 (the assay is run on Tycho NT.6 with 20ºC/min heating rate); (iii) **FIG. 25C**: 2D class averaged from negatively stained EM images of gB2555; and (iv) **FIG. 25D**: 2D class averaged from negatively stained EM images of gB2556. In **FIGs. 25C** and **25D**, representative classes for prefusion gB (tapered shape) are indicated with a circle and postfusion gB are indicated with a square.

FIG. 26A – 26B depict (i) **FIG. 26A**: SEC profile comparison of gB2796 (SEC is run on Superose6 increase 5/150 column in buffer 20mM HEPES pH 7.5, 250mM NaCl); and **FIG. 26B**: thermal stability of gB2796 (the assay is run on Tycho NT.6 with 20ºC/min heating rate).

SEQUENCE IDENTIFIERS

SEQ ID NO: 1 sets forth an amino acid sequence derived from a native HCMV gB (strain Towne).

SEQ ID NO: 2 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: Q98C, G271C.

SEQ ID NO: 3 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: Q98C, I653C.

SEQ ID NO: 4 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: G99C, A267C.

SEQ ID NO: 5 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: T100C, A267C.

SEQ ID NO: 6 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: T100C, S269C.

SEQ ID NO: 7 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: T100C, L651C.

SEQ ID NO: 8 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: D217C, F584C.

SEQ ID NO: 9 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: Y218C, A585C.

SEQ ID NO: 10 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: S219C, D654C.

SEQ ID NO: 11 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: N220C, D652C.

SEQ ID NO: 12 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: T221C, D652C.

SEQ ID NO: 13 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: W240C, G718C.

SEQ ID NO: 14 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: Y242C, K710C.

SEQ ID NO: 15 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: Y242C, D714C.

SEQ ID NO: 16 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: S269C, I653C.

SEQ ID NO: 17 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: G271C, P614C.

SEQ ID NO: 18 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: S367C, L499C.

SEQ ID NO: 19 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: T372C, W506C.

SEQ ID NO: 20 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: F541C, Q669C.

SEQ ID NO: 21 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: L548C, A650C.

SEQ ID NO: 22 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: A549C, I653C.

SEQ ID NO: 23 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: S550C, D652C.

SEQ ID NO: 24 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: G604C, F661C.

SEQ ID NO: 25 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: N605C, E665C.

SEQ ID NO: 26 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: R607C, S675C.

SEQ ID NO: 27 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: T608C, D679C.

SEQ ID NO: 28 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: E609C, F678C.

SEQ ID NO: 29 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: R673C, S674C.

SEQ ID NO: 30 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: N676C, V677C.

SEQ ID NO: 31 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: L680C, E681C.

SEQ ID NO: 32 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: I683C, M684C.

SEQ ID NO: 33 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: F687C, N688C.

SEQ ID NO: 34 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: Y690C, K691C.

SEQ ID NO: 35 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: K695C, K724C.

SEQ ID NO: 36 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: T746C, F747C.

SEQ ID NO: 37 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutations are included: K749C, N750C.

SEQ ID NO: 38 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutation is included: K670L.

SEQ ID NO: 39 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutation is included: K670F.

SEQ ID NO: 40 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutation is included: R673L.

SEQ ID NO: 41 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutation is included: R673F.

SEQ ID NO: 42 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutation is included: K691L.

SEQ ID NO: 43 sets forth the amino acid sequence of SEQ ID NO: 1, wherein the following mutation is included: K691F.

SEQ ID NO: 44 sets forth the amino acid sequence for a native HCMV gB (AD169; PDB: 5CXF) that folds into a postfusion conformation when expressed.

SEQ ID NO: 45 sets forth the amino acid sequence for an HCMV gB variant (gB705) that folds into a postfusion conformation when expressed.

SEQ ID NO: 46 sets forth the amino acid sequence for a native HCMV gB (Merlin strain) that folds into a postfusion conformation when expressed.

SEQ ID NO: 47 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: M96C and D660C.

SEQ ID NO: 48 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: Q98C and N658C.

SEQ ID NO: 49 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: T100C and R258C.

SEQ ID NO: 50 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: T100C and L656C.

SEQ ID NO: 51 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: T100C and N658C.

SEQ ID NO: 52 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: I117C and T406C.

SEQ ID NO: 53 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: I117C and S407C.

SEQ ID NO: 54 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: Y153C and L712C.

SEQ ID NO: 55 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: L162C and M716C.

SEQ ID NO: 56 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: D217C and S587C.

SEQ ID NO: 57 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: D217C and Y589C.

SEQ ID NO: 58 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: S219C and F584C.

SEQ ID NO: 59 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: S219C and A585C.

SEQ ID NO: 60 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: S219C and N586C.

SEQ ID NO: 61 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: N220C and T659C.

SEQ ID NO: 62 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: S223C and T659C.

SEQ ID NO: 63 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: W240C and A732A.

SEQ ID NO: 64 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: W240C and G735C.

SEQ ID NO: 65 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: Y242C and V728C.

SEQ ID NO: 66 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: Y242C and G731C.

SEQ ID NO: 67 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: R258C and L656C.

SEQ ID NO: 68 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: S269C and L656C.

SEQ ID NO: 69 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: S269C and N658C.

SEQ ID NO: 70 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: D272C and P614C.

SEQ ID NO: 71 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: V273C and V629C.

SEQ ID NO: 72 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: W349C and A650C.

SEQ ID NO: 73 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: S367C and A500C.

SEQ ID NO: 74 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: S367C and A503C.

SEQ ID NO: 75 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: K370C and Q501C.

SEQ ID NO: 76 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: K522C and I683C.

SEQ ID NO: 77 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: I523C and I683C.

SEQ ID NO: 78 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: I523C and M684C.

SEQ ID NO: 79 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: N524C and M684C.

SEQ ID NO: 80 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: P525C and E681C.

SEQ ID NO: 81 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: R540C and L680C.

SEQ ID NO: 82 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: F541C and L680C.

SEQ ID NO: 83 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: L548C and P655C.

SEQ ID NO: 84 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: A549C and N658C.

SEQ ID NO: 85 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: S550C and P655C.

SEQ ID NO: 86 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: S550C and E657C.

SEQ ID NO: 87 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: Q591C and S668C.

SEQ ID NO: 88 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: L603C and Y667C.

SEQ ID NO: 89 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: G604C and L672C.

SEQ ID NO: 90 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: R607C and N688C.

SEQ ID NO: 91 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: T608C and Q692C.

SEQ ID NO: 92 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: E609C and K691C.

SEQ ID NO: 93 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: E610C and S674C.

SEQ ID NO: 94 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: E610C and S675C.

SEQ ID NO: 95 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: Q612C and V663C.

SEQ ID NO: 96 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: V737C and F755C.

SEQ ID NO: 97 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: V741C and A754C.

SEQ ID NO: 98 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutations are included: V741C and F755C.

SEQ ID NO: 99 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutation is included: D679S.

SEQ ID NO: 100 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutation is included: D679N.

SEQ ID NO: 101 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutation is included: E682S.

SEQ ID NO: 102 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutation is included: E682Q.

SEQ ID NO: 103 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutation is included: E686S.

SEQ ID NO: 104 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutation is included: E686Q.

SEQ ID NO: 105 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutation is included: N118P.

SEQ ID NO: 106 sets forth the amino acid of SEQ ID NO: 1, wherein the following mutation is included: D646P.

SEQ ID NO: 107 sets forth the amino acid sequence for >5CXF:A|PDBID|CHAIN|SEQUENCE, from FIG. 8.

SEQ ID NO: 108 sets forth the amino acid sequence for >5CXF:B|PDBID|CHAIN|SEQUENCE, from FIG. 8.

SEQ ID NO: 109 sets forth the amino acid sequence for >5CXF:C|PDBID|CHAIN|SEQUENCE, from FIG. 8.

SEQ ID NO: 110 sets forth the amino acid sequence for a gB polypeptide from HAN13 gi|242345614|gb|GQ221973.1|:81988-84705 Human herpesvirus 5 strain HAN13, complete genome reverse complement, referenced in the description for FIG. 9.

SEQ ID NOs: 111 sets forth the amino acid sequence for a gB polypeptide from VR1814 gi|270355759|gb|GU179289.1|:81925-84642 Human herpesvirus 5 strain VR1814, complete genome reverse complement, referenced in the description for FIG. 9.

SEQ ID NOs: 112-140 sets forth the amino acid sequence for a gB polypeptide from various CMV gB strains described in FIG. 9.

SEQ ID NO: 141 – SEQ ID NO: 210 set forth a polynucleotide sequence encoding a polypeptide derived from HCMV, such as for example, gH, gL, UL128, UL130, UL131, gB or pp65.

SEQ ID NO: 211 – SEQ ID NO: 223 set forth an amino acid sequence for a polypeptide derived from HCMV, such as for example, gH, gL, UL128, UL130, UL131, gB or pp65.

SEQ ID NO: 224 sets forth an amino acid sequence for a polypolypeptide derived from HCMV.

SEQ ID NO: 225 – SEQ ID NO: 254 set forth a polynucleotide sequence encoding a polypolypeptide derived from HCMV.

SEQ ID NO: 255 sets forth the amino acid sequence of CMV gB1666, residues V23 to V907 of SEQ ID NO: 1 (Towne) having the following mutations: D217C, Y589C, and I675S. Does not include the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 256 sets forth the nucleic acid sequence of CMV gB1666 encoding residues V23 to V907 of SEQ ID NO: 1 (Towne) having the following mutations: D217C, Y589C, and I675S. Does not include nucleotides encoding the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 257 sets forth the amino acid sequence of CMV gB2457 (Prefusion, Full length), residues V23 to V907 of SEQ ID NO: 1 (Towne) having the following mutations: D217C, M371C, W506C, Y589C, and I675S. Does not include the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 258 sets forth the nucleic acid sequence of CMV gB2457 (Prefusion, Full length) encoding residues V23 to V907 of SEQ ID NO: 1 (Towne) having the following mutations: D217C, M371C, W506C, Y589C, and I675S. Does not include nucleotides encoding the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 259 sets forth the amino acid sequence of CMV gB2459 (Prefusion, Full length), residues V23 to V907 of SEQ ID NO: 1 (Towne) having the following mutations: D217C, N524C, Y589C, M684C, and I675S. Does not include the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 260 sets forth the nucleic acid sequence of CMV gB2459 (Prefusion, Full length) encoding residues V23 to V907 of SEQ ID NO: 1 (Towne) having the following mutations: D217C, N524C, Y589C, M684C, and I675S. Does not include nucleotides encoding the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 261 sets forth the amino acid sequence of CMV gB2555 (Prefusion, including trimerization domain (GCN4 CC tri2)), residues V23 to V702 of SEQ ID NO: 1 (Towne) having the following mutations: YIH to GHR (155-157), D217C, W240A, M371C, C246S, W506C, Y589C, and I675S. Does not include the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 262 sets forth the nucleic acid sequence of CMV gB2555 (Prefusion, including trimerization domain (GCN4 CC tri2)) encoding residues V23 to V702 of SEQ ID NO: 1 (Towne) having the following mutations: YIH to GHR (155-157), D217C, W240A, M371C,

C246S, W506C, Y589C, and I675S. Does not include nucleotides encoding the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 263 sets forth the amino acid sequence of CMV gB2556 (Prefusion, including trimerization domain (GCN4 CC tri2)), residues V23 to V702 of SEQ ID NO: 1 (Towne) having the following mutations: YIH to GHR (155-157), D217C, W240A, C246S, N524C, Y589C, I675S, and M684C. Does not include the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 264 sets forth the nucleic acid sequence of CMV gB2556 (Prefusion, including trimerization domain (GCN4 CC tri2)) encoding residues V23 to V702 of SEQ ID NO: 1 (Towne) having the following mutations: YIH to GHR (155-157), D217C, W240A, C246S, N524C, Y589C, I675S, and M684C. Does not include nucleotides encoding the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 265 sets forth the amino acid sequence of CMV gB2796 (Prefusion, ectodomain), residues V23 to D646 of SEQ ID NO:1 (Towne) having the following mutations: YIH to GHR (155-157), D217C, W240A, C246S, M371C, W506C, and Y589C. Does not include the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 266 sets forth the nucleic acid sequence of CMV gB2796 (Prefusion, ectodomain) encoding amino acids V23 to D646 of SEQ ID NO:1 (Towne) having the following amino acid mutations: YIH to GHR (155-157), D217C, W240A, C246S, M371C, W506C, and Y589C. Does not include the nucleotides encoding the signal sequence (residues M1-A22 of SEQ ID NO: 1).

SEQ ID NO: 267 sets for the CMV gB ectodomain, V23 to P707 of SEQ ID NO:1 (Towne strain).

SEQ ID NO: 268 sets forth the amino acid sequence of the signal sequence of wt HCMV gB (Towne).

SEQ ID NO: 269 sets forth the amino acid sequence of GCN4 CC tri2 trimerization domain (see Table 9).

SEQ ID NO: 270 sets forth the nucleic acid sequence encoding the GCN4 CC tri2 trimerization domain.

SEQ ID NO: 271 sets forth the amino acid sequence of T4 fibritin foldon domain (see Table 9).

SEQ ID NO: 272 – 273 sets forth the amino acid sequences of various GCN4 trimerization domains.

SEQ ID NO: 274 sets forth the amino acid sequences of C-terminal fusion sequence described in Table 9.

DETAILED DESCRIPTION

As described herein, the inventors elucidated a three-dimensional structure of a HCMV glycoprotein B (gB) polypeptide in a conformation that differs from the postfusion conformation and which we refer to as a prefusion conformation. Mutations to stabilize the polypeptide in a prefusion conformation were also discovered. The structures may be used to generate HCMV neutralizing antibody responses greater than those achieved with prior HCMV gB-based immunogens. The polypeptides described herein, and the nucleic acids that encode the polypeptides, may be used, for example, as potential immunogens in a vaccine against HCMV and as diagnostic tools, among other uses.

The inventors further discovered mutations that can be introduced into a cytomegalovirus (CMV) gB polypeptide, which can, among other things, greatly facilitate the production and subsequent purification of a gB antigen stabilized in the prefusion conformation; significantly improve the efficiency of production of a gB polypeptide in the prefusion conformation; alter the antigenicity of a gB polypeptide, as compared to the wild-type gB polypeptide; facilitate a focused immune response to prefusion gB; and reduce and/or eliminate steric occlusion of neutralizing epitopes of gB.

DEFINITIONS

As used herein, the singular forms "a," "an," and "the," refer to both the singular as well as plural, unless the context clearly indicates otherwise. For example, the term "an antigen" includes single or plural antigens and can be considered equivalent to the phrase "at least one antigen."

As used herein, the term “additional mutation” shall include, but not be limited to, an amino acid substitution that introduces electrostatic mutations, fill cavities, alter the packing of residues, introduce N-linked glycosylation sites, introduce inter-protomer disulfide bonds, and combinations thereof, including consersatvie substitutions thereof, as compared to a native HCMV gB. Examples of an “additional mutation” may be found throughout this description but most specifically are set forth in Tables 3 and 4 and the Examples.

The term “adjuvant” refers to a substance capable of enhancing, accelerating, or prolonging the body’s immune response to an immunogen or immunogenic composition, such as a vaccine (although it is not immunogenic by itself). An adjuvant may be included in the immunogenic composition, such as a vaccine, or may be administered separately from the immunogenic composition.

The term “administration” refers to the introduction of a substance or composition into a subject by a chosen route. Administration can be local or systemic. For example, if the chosen route is intramuscular, the composition (such as a composition including a disclosed immunogen) is administered by introducing the composition into a muscle of the subject.

The term “antigen” refers to a molecule that can be recognized by an antibody. Examples of antigens include polypeptides, peptides, lipids, polysaccharides, and nucleic acids containing antigenic determinants, such as those recognized by an immune cell.

The term “conservative substitution” refers to the substitution of an amino acid with a chemically similar amino acid. Conservative amino acid substitutions providing functionally similar amino acids are well known in the art. The following six groups each contain amino acids that are conservative substitutions for one another:

1) alanine (A), serine (S), threonine (T);

2) aspartic acid (D), glutamic acid (E);

3) asparagine (N), glutamine (Q);

4) arginine (R), lysine (K);

5) isoleucine (I), leucine (L), methionine (M), valine (V); and

6) phenylalanine (F), tyrosine (Y), tryptophan (W).

The term “degenerate variant” of a reference polynucleotide refers to a polynucleotide that differs in the nucleotide sequence from the reference polynucleotide but encodes the same polypeptide sequence as encoded by the reference polynucleotide. There are 20 natural amino acids, most of which are specified by more than one codon. For instance, the codons CGU, CGC, CGA, CGG, AGA, and AGG all encode the amino acid arginine. Thus, at every position where an arginine is specified within a protein encoding sequence, the codon can be altered to any of the corresponding codons described without altering the encoded protein. Because of the degeneracy of the genetic code, a large number of functionally identical nucleic acids encode any given polypeptide.

The term “effective amount” refers to an amount of agent that is sufficient to generate a desired response. For instance, this can be the amount necessary to inhibit viral replication or to measurably alter outward symptoms of the viral infection.

The term “epitope” (or “antigenic determinant” or “antigenic site”) refers to the region of an antigen to which an antibody, B cell receptor, or T cell receptor binds or responds. Epitopes can be formed from contiguous amino acids or noncontiguous amino acids juxtaposed by secondary, tertiary, or quaternary folding of a protein. Epitopes formed from contiguous amino acids are typically retained on exposure to denaturing solvents whereas epitopes formed by higher order folding are typically lost on treatment with denaturing solvents.

The term “subject” refers to either a human or a non-human mammal. The term “mammal” refers to any animal species of the Mammalia class. Examples of mammals include: humans; non-human primates such as monkeys; laboratory animals such as rats, mice, guinea pigs; domestic animals such as cats, dogs, rabbits, cattle, sheep, goats, horses, and pigs; and captive wild animals such as lions, tigers, elephants, and the like.

The term “glycoprotein” refers to a protein that contains oligosaccharide chains (glycans) covalently attached to polypeptide side-chains. The carbohydrate is attached to the protein in a cotranslational or posttranslational modification known as glycosylation. The term “glycosylation site” refers to an amino acid sequence on the surface of a polypeptide, such as a protein, which accommodates the attachment of a glycan. An N-linked glycosylation site is triplet sequence of NX(S/T) in which N is asparagine, X is any residue except proline, and (S/T) is a serine or threonine residue. A glycan is a polysaccharide or oligosaccharide. Glycan may also be used to refer to the carbohydrate portion of a glycoconjugate, such as a glycoprotein, glycolipid, or a proteoglycan.

The term “host cells” refers to cells in which a vector can be propagated and its DNA or RNA expressed. The cell may be prokaryotic or eukaryotic.

The term "identical" or percent "identity," in the context of two or more nucleic acid or polypeptide sequences, refers to two or more sequences or subsequences that are the same or have a specified percentage of amino acid residues or nucleotides that are the same, when compared and aligned for maximum correspondence. Methods of alignment of sequences for comparison are well known in the art. Once aligned, the number of matches is determined by counting the number of positions where an identical nucleotide or amino acid residue is present in both sequences. The percent sequence identity is determined by dividing the number of matches either by the length of the sequence set forth in the identified sequence, or by an articulated length (such as 100 consecutive nucleotides or amino acid residues from a sequence set forth in an identified sequence), followed by multiplying the resulting value by 100. For example, a peptide sequence that has 1166 matches when aligned with a test sequence having 1554 amino acids is 75.0 percent identical to the test sequence (1166÷1554*100=75.0).

Optimal alignment of sequences for comparison can be conducted, e.g., by the local homology algorithm of Smith and Waterman, Adv. Appl. Math. 2:482, 1981, by the homology alignment algorithm of Needleman and Wunsch, Mol. Biol. 48:443, 1970, by the search for similarity method of Pearson and Lipman, Proc. Nat'l. Acad. Sci. USA 85:2444, 1988, by computerized implementations of these algorithms (GAP, BESTFIT, FASTA, and TFASTA in the Wisconsin Genetics Software Package, Genetics Computer Group, 575 Science Dr., Madison, WI), or by manual alignment and visual inspection (see, e.g., Sambrook et al. (Molecular Cloning: A Laboratory Manual, 4th ed, Cold Spring Harbor, New York, 2012) and Ausubel et al. (In Current Protocols in Molecular Biology, John Wiley and Sons, New York, through supplement 104, 2013).

The term “immunogen” refers to a compound, composition, or substance that is immunogenic as defined herein below.

The term “immunogenic” refers to the ability of a substance to cause, elicit, stimulate, or induce an immune response against a particular antigen, in a subject, whether in the presence or absence of an adjuvant.

The term "immune response" refers to any detectable response of a cell or cells of the immune system of a host mammal to a stimulus (such as an immunogen), including, but not limited to, innate immune responses (e.g., activation of Toll receptor signaling cascade), cell-mediated immune responses (e.g., responses mediated by T cells, such as antigen-specific T cells, and non-specific cells of the immune system), and humoral immune responses (e.g., responses mediated by B cells, such as generation and secretion of antibodies into the plasma, lymph, and/or tissue fluids). Examples of immune responses include an alteration (e.g., increase) in Toll-like receptor activation, lymphokine (e.g., cytokine (e.g., Th1, Th2 or Th17 type cytokines) or chemokine) expression or secretion, macrophage activation, dendritic cell activation, T cell (e.g., CD4+ or CD8+ T cell) activation, NK cell activation, B cell activation (e.g., antibody generation and/or secretion), binding of an immunogen (e.g., antigen (e.g., immunogenic polypeptide)) to an MHC molecule, induction of a cytotoxic T lymphocyte ("CTL") response, induction of a B cell response (e.g., antibody production), and, expansion (e.g., growth of a population of cells) of cells of the immune system (e.g., T cells and B cells), and increased processing and presentation of antigen by antigen presenting cells. The term “immune response” also encompasses any detectable response to a particular substance (such as an antigen or immunogen) by one or more components of the immune system of a vertebrate animal *in vitro*.

The term ‘immunogenic composition” refers to a composition comprising an immunogen.

The term “mutation” refers to deletion, addition, or substitution of amino acid residues in the amino acid sequence of a protein or polypeptide as compared to the amino acid sequence of a reference protein or polypeptide. Throughout the specification and claims, the substitution of an amino acid at one particular location in the protein sequence is referred to using a notation "(amino acid residue in wild type protein)(amino acid position)(amino acid residue in engineered protein)". For example, a notation Y75A refers to a substitution of a tyrosine (Y) residue at the 75th position of the amino acid sequence of the reference protein by an alanine (A) residue (in a mutant of the reference protein). In cases where there is variation in the amino acid residue at the same position among different wild-type sequences, the amino acid code preceding the position number may be omitted in the notation, such as “75A.”

The term “native” or “wild-type” protein, sequence, or polypeptide refers to a naturally existing protein, sequence, or polypeptide that has not been artificially modified by selective mutations.

The term “pharmaceutically acceptable carriers” refers to a material or composition which, when combined with an active ingredient, is compatible with the active ingredient and does not cause toxic or otherwise unwanted reactions when administered to a subject, particularly a mammal. Examples of pharmaceutically acceptable carriers include solvents, surfactants, suspending agents, buffering agents, lubricating agents, emulsifiers, absorbants, dispersion media, coatings, and stabilizers.

The term “pre-fusion-specific antibody” refers to an antibody that specifically binds to the CMV gB glycoprotein in a pre-fusion conformation, but does not bind to the CMV gB protein in a post-fusion conformation.

The term “pre-fusion trimer-specific antibody” refers to an antibody that specifically binds to the CMV gB glycoprotein in a pre-fusion, trimeric conformation, but does not bind to the CMV gB protein in a post-fusion conformation or in a pre-fusion conformation that is not also trimeric. “Pre-fusion trimer-specific antibodies” are a subset of “pre-fusion-specific antibodies.”

The term “prime-boost vaccination” refers to an immunotherapy regimen that includes administration of a first immunogenic composition (the primer vaccine) followed by administration of a second immunogenic composition (the booster vaccine) to a subject to induce an immune response. The primer vaccine and the booster vaccine typically contain the same immunogen and are presented in the same or similar format. However, they may also be presented in different formats, for example one in the form of a vector and the other in the form of a naked DNA plasmid. The skilled artisan will understand a suitable time interval between administration of the primer vaccine and the booster vaccine. Further, the primer vaccine, the booster vaccine, or both primer vaccine and the booster vaccine additionally include an adjuvant.

The term “soluble protein” refers to a protein capable of dissolving in aqueous liquid and remaining dissolved. The solubility of a protein may change depending on the concentration of the protein in the water-based liquid, the buffering condition of the liquid, the concentration of other solutes in the liquid, for example salt and protein concentrations, and the temperature of the liquid.

The term “specifically bind,” in the context of the binding of an antibody to a given target molecule, refers to the binding of the antibody with the target molecule with higher affinity than its binding with other tested substances. For example, an antibody that specifically binds to the CMV gB protein in pre-fusion conformation is an antibody that binds CMV gB protein in pre-fusion conformation with higher affinity than it binds to the CMV gB protein in the post-fusion conformation.

The term “therapeutically effective amount” refers to the amount of agent that is sufficient to prevent, treat (including prophylaxis), reduce and/or ameliorate the symptoms and/or underlying causes of a disorder.

The term “vaccine” refers to a pharmaceutical composition comprising an immunogen that is capable of eliciting a prophylactic or therapeutic immune response in a subject. Typically, a vaccine elicits an antigen- specific immune response to an antigen of a pathogen, for example a viral pathogen.

The term “vector” refers to a nucleic acid molecule capable of transporting or transferring a foreign nucleic acid molecule. The term encompasses both expression vectors and transcription vectors. The term “expression vector” refers to a vector capable of expressing the insert in the target cell, and generally contains control sequences, such as enhancer, promoter, and terminator sequences, that drive expression of the insert. The term “transcription vector” refers to a vector capable of being transcribed but not translated. Transcription vectors are used to amplify their insert. The foreign nucleic acid molecule is referred to as “insert” or “transgene.” A vector generally consists of an insert and a larger sequence that serves as the backbone of the vector. Based on the structure or origin of vectors, major types of vectors include plasmid vectors, cosmid vectors, phage vectors such as lambda phage, viral vectors such as adenovirus (Ad) vectors, and artificial chromosomes.

Native HCMV gB

Native HCMV gB is synthesized as a 906 or 907 amino acid polypeptide (depending upon the strain of CMV) that undergoes extensive posttranslational modification, including glycosylation at *N*- and *O*-linked sites and cleavage by ubiquitous cellular endoproteases into amino- and carboxy-terminal fragments. The N- and C-terminal fragments of gB, gp116 and gp55, respectively, are covalently connected by disulfide bonds, and the mature, glycosylated gB assumes a trimeric configuration. The gB polypeptide contains a large ectodomain (which is cleaved into gp116 and the ectodomain of gp55), a transmembrane domain (TM), and the intraviral (or cytoplasmic) domain (cytodomain).

Native HCMV gBs from various strains are known. For example, at least sixty HCMV gB sequences from clinical and laboratory-adapted strains are available from NCBI’s RefSeq database as described in Burke et al., "Crystal Structure of the Human Cytomegalovirus Glycoprotein B." *PLoS Pathog.* 2015 Oct 20;11(10):e1005227, see S4 Fig., which is hereby incorporated herein in its entirety.

Accordingly, the term "CMV gB” polypeptide or “HCMV gB” polypeptide as used herein is to be understood as the native HCMV gB polypeptide from any human HCMV strain (not limited to the Towne strain). The actual residue position number may need to be adjusted for gBs from other human CMV strains depending on the actual sequence

alignment. However, one of skill in the art will understand how to align sequences from different strains in order to identify the corresponding residue position from one strain to another.

HCMV gB is encoded by the UL55 gene of HCMV genome. It is an envelope glycoprotein that mediates the fusion of the HCMV viral membrane with a host cell membrane. The protein undergoes a series of conformational changes from a prefusion to a postfusion form. The crystal structure of gB in its postfusion form is available (PDB accession code 5CXF), and the prefusion conformation is set forth herein.

Conformations

A HCMV gB postfusion conformation refers to a structural conformation adopted by HCMV gB subsequent to the fusion of the virus envelope with the host cellular membrane. The native HCMV gB may also assume the postfusion conformation outside the context of a fusion event, for example, under stress conditions such as exposure to heat, extraction from a membrane, expression as an ectodomain or storage. More specifically, the gB postfusion conformation is described, for example, in Burke et al., Crystal Structure of the Human Cytomegalovirus Glycoprotein B. *PLoS Pathog.* 2015 Oct 20;11(10): e1005227. See also, Research Collaboratory for Structural Bioinformatics Protein Data Bank (RCSB PDB): 5CXF, Crystal structure of the extracellular domain of glycoprotein B from Human Cytomegalovirus, from Human cytomegalovirus (strain AD169), deposited 2015-07-28; DOI: 10.2210/pdb5CXF/pdb; and Burke et al., *PLoS Pathog.* 2015 Oct 20;11(10):e1005227. A sequence of a protein that when expressed, can fold into a postfusion conformation, is provided as SEQ ID NO: 44. Another example of a protein that when expressed folds into a postfusion conformation is provided as SEQ ID NO: 45. The postfusion conformation is about 165 Å tall and 65 Å wide.

As used herein, a “prefusion conformation” refers to a structural conformation adopted by the polypeptide that differs from the HCMV gB postfusion conformation at least in terms of molecular dimensions or three-dimensional coordinates. The prefusion conformation refers to a structural conformation adopted by HCMV gB prior to triggering of the fusogenic event that leads to transition of gB to the postfusion conformation. Isolating HCMV gB in a stable prefusion conformation may be useful in informing and directing development of improved vaccines and immunogenic compositions to address the important public health problem of cytomegalovirus infections. In some embodiments, a prefusion conformation includes a conformation that can bind to a prefusion-specific antibody. In some embodiments, a prefusion conformation includes a conformation that is characterized by coordinates set forth in **Table 1A**, which is incorporated by reference herein in its entirety.

In some embodiments, the polypeptide is characterized by structure coordinates comprising a root mean square deviation (RMSD) of conserved residue backbone atoms when superimposed on backbone atoms described by structural coordinates set forth in **Table 1A**. In some embodiments, a prefusion conformation includes a conformation that is characterized by coordinates set forth in **Table 1B**, which is incorporated by reference herein in its entirety. In some embodiments, the polypeptide is characterized by structure coordinates comprising a root mean square deviation (RMSD) of conserved residue backbone atoms when superimposed on backbone atoms described by structural coordinates set forth in **Table 1B**. In some embodiments, a polypeptide having a HCMV gB prefusion conformation refers to a polypeptide that includes a trimeric helix bundle, centered on the three-fold axis of the trimer and comprising residues L479 to K522 of each protomer, wherein the direction of the bundle from N-terminal to C-terminal along the three-fold axis (shown by the arrows in **FIGs. 4A** and **4B**) is towards the point on the three-fold axis intersected by the plane defined by residue W240 of each protomer, which is in a fusion loop near the tip of each Domain I of the trimer. In some embodiments, the helix bundle comprises the residues between L479 and K522, according to the numbering of SEQ ID NO: 1.

Polypeptides of the Invention

The present invention relates to polypeptides that include amino acid mutations relative to the amino acid sequence of the corresponding wild-type HCMV gB. The amino acid mutations include amino acid substitutions, deletions, or additions relative to a wild-type HCMV gB. Accordingly, the polypeptides are mutants of wild-type HCMV gBs.

In some embodiments, the polypeptides possess certain beneficial characteristics, such as being immunogenic. In some embodiments, the polypeptides possess increased immunogenic properties or improved stability in the prefusion conformation, as compared to the corresponding wild-type HCMV gB. Stability refers to the degree to which a transition of the HCMV gB conformation from prefusion to postfusion is hindered or prevented. In still other embodiments, the present disclosure provides polypeptides that display one or more introduced mutations as described herein, which may also result in improved stability in the prefusion conformation. The introduced amino acid mutations in the HCMV gB include amino acid substitutions, deletions, or additions. In some embodiments, the only mutations in the amino acid sequences of the mutants are amino acid substitutions relative to a wild-type HCMV gB.

Several modes of stabilizing the polypeptide conformation include amino acid substitutions that introduce disulfide bonds, introduce electrostatic mutations, fill cavities, alter the packing of residues, introduce N-linked glycosylation sites, and combinations thereof, as compared to a native HCMV gB.

In one aspect, the invention relates to a polypeptide that exhibits a conformation that is not the postfusion conformation. That is, the polypeptide exhibits a prefusion conformation as described above and does not exhibit a postfusion conformation. See, for example, the prefusion conformation illustrated in **FIG. 3A** , as compared to the postfusion conformation illustrated in **FIG. 3B**; **FIG. 4A**, as compared to the postfusion conformation illustrated in **FIG. 4B**; and **FIG. 6A**, as compared to the postfusion conformation illustrated in **FIG. 6C**. In some embodiments, the polypeptide is characterized by structure coordinates comprising a root mean square deviation (RMSD) of conserved residue backbone atoms when superimposed on backbone atoms described by structural coordinates of **Table 1A**. In some embodiments, the polypeptide is characterized by structure coordinates comprising a root mean square deviation (RMSD) of conserved residue backbone atoms when superimposed on backbone atoms described by structural coordinates of **Table 1B**.

In some embodiments, the polypeptides are isolated, i.e., separated from HCMV gB polypeptides having a postfusion conformation. Thus, the polypeptide may be, for example, at least 80% isolated, at least 90%, 95%, 98%, 99%, or even 99.9% isolated from HCMV gB polypeptides in a postfusion conformation. In one aspect, the invention relates to a polypeptide that specifically binds to an HCMV gB prefusion-specific antibody.

It will be understood that a homogeneous population of polypeptides in a particular conformation can include variations (such as polypeptide modification variations, e.g., glycosylation state), that do not alter the conformational state of the polypeptide. In several embodiments, the population of polypeptides remains homogeneous over time. For example, in some embodiments, the polypeptide, when dissolved in aqueous solution, forms a population of polypeptides stabilized in the prefusion conformation for at least 12 hours, such as at least 24 hours, at least 48 hours, at least one week, at least two weeks, or more.

Without being bound by theory, the polypeptides disclosed herein are believed to facilitate a stabilized prefusion conformation of an HCMV gB polypeptide. The polypeptides include at least one mutation as compared to a corresponding native HCMV gB polypeptide. A person of ordinary skill in the art will appreciate that the polypeptides are useful to elicit immune responses in mammals to CMV.

The native HCMV gB is conserved among the HCMV entry glycoproteins and is required for entry into all cell types. In view of the substantial conservation of HCMV gB sequences, the amino acid positions amongst different native HCMV gB sequences may be compared to identify corresponding HCMV gB amino acid positions among different HCMV strains. Thus, the conservation of native HCMV gB sequences across strains allows use of a reference HCMV gB sequence for comparison of amino acids at particular positions in the HCMV gB polypeptide. Accordingly, unless expressly indicated otherwise, the polypeptide

amino acid positions provided herein refer to the reference sequence of the HCMV gB polypeptide set forth in SEQ ID NO: 1.

However, it should be noted that different native HCMV gB sequences may have different numbering systems from SEQ ID NO: 1, for example, there may be additional amino acid residues added or removed as compared to SEQ ID NO: 1 in a native HCMV gB sequence derived from a strain other than Towne. As such, it is to be understood that when specific amino acid residues are referred to by their number, the description is not limited to only amino acids located at precisely that numbered position when counting from the beginning of a given amino acid sequence, but rather that the equivalent or corresponding amino acid residue in any and all HCMV gB sequences is intended even if that residue is not at the same precise numbered position, for example if the HCMV sequence is shorter (e.g., a fragment) or longer than SEQ I D NO: 1, or has insertions or deletions as compared to SEQ ID NO: 1.

In some embodiments, the polypeptide is full-length, wherein the polypeptide includes the same number of amino acid residues as the mature full-length wild-type HCMV gB. In some embodiments, the polypeptide is a fragment, wherein the polypeptide includes less than the total number of amino acid residues as the mature full-length wild-type HCMV gB. As used herein the term “fragment” and “truncated” are interchangeable. In some embodiments, the truncated gB polypeptide includes only the ectodomain sequence.

1. Cysteine (C) Substitutions

In some embodiments, the polypeptide includes cysteine substitutions that are introduced, as compared to a native HCMV gB. In some embodiments, the polypeptide includes any one of 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 cysteine substitutions. Without being bound by theory or mechanism, the cysteine substitutions described herein are believed to facilitate stability of the polypeptide in a conformation that is not the HCMV gB postfusion conformation. The introduced cysteine substitutions may be introduced by protein engineering, for example, by including one or more substituted cysteine residues that form a disulfide bond. In several embodiments, the amino acid positions of the cysteines are within a sufficiently close distance for formation of a disulfide bond in the prefusion, and not postfusion, conformation of the HCMV gB.

The cysteine residues that form a disulfide bond can be introduced into native HCMV gB sequence by two or more amino acid substitutions. For example, in some embodiments, two cysteine residues are introduced into a native HCMV gB sequence to form a disulfide bond.

In some embodiments, the polypeptide includes a recombinant HCMV gB stabilized in a prefusion conformation by a disulfide bond between cysteines that are introduced into a

pair of amino acid positions that are close to each other in the prefusion conformation and more distant in the postfusion conformation.

Exemplary cysteine substitutions as compared to a native HCMV gB include any mutation selected from **Table 2**, the numbering of which based on the numbering of SEQ ID NO: 1.

Table 2. Exemplary cysteine pairs for disulfide bond stabilization

Row	(i) Mutant ID	(ii) HCMV gB residue pairs for cysteine substitution, according to the numbering of SEQ ID NO: 1	(iii) Substitutions corresponding to SEQ ID NO: 1	(iv) Exemplary sequence that includes the mutations is set forth in:
1	gB-001; pSB01582	98 and 271	Q98C and G271C	SEQ ID NO: 2
2	gB-002	98 and 653	Q98C and I653C	SEQ ID NO: 3
3	gB-003; pSB01579	99 and 267	G99C and A267C	SEQ ID NO: 4
4	gB-004; pSB01580	100 and 267	T100C and A267C	SEQ ID NO: 5
5	gB-005; pSB01581	100 and 269	T100C and S269C	SEQ ID NO: 6
6	gB-006	100 and 651	T100C and L651C	SEQ ID NO: 7
7	gB-007	217 and 584	D217C and F584C	SEQ ID NO: 8
8	gB-008	218 and 585	Y218C and A585C	SEQ ID NO: 9
9	gB-009	219 and 654	S219C and D654C	SEQ ID NO: 10
10	gB-010	220 and 652	N220C and D652C	SEQ ID NO: 11
11	gB-011	221 and 652	T221C and D652C	SEQ ID NO: 12
12	gB-012	240 and 718	W240C and G718C	SEQ ID NO: 13
13	gB-013	242 and 710	Y242C and K710C	SEQ ID NO: 14
14	gB-014	242 and 714	Y242C and D714C	SEQ ID NO: 15
15	gB-015	269 and 653	S269C and I653C	SEQ ID NO: 16
16	gB-016	271 and 614	G271C and P614C	SEQ ID NO: 17
17	gB-017	367 and 499	S367C and L499C	SEQ ID NO: 18
18	gB-018	372 and 506	T372C and W506C	SEQ ID NO: 19
19	gB-019	541 and 669	F541C and Q669C	SEQ ID NO: 20
20	gB-020	548 and 650	L548C and A650C	SEQ ID NO: 21
21	gB-021	549 and 653	A549C and I653C	SEQ ID NO: 22
22	gB-022	550 and 652	S550C and D652C	SEQ ID NO: 23

23	gB-023	604 and 661	G604C and F661C	SEQ ID NO: 24
24	gB-024	605 and 665	N605C and E665C	SEQ ID NO: 25
25	gB-025	607 and 675	R607C and S675C	SEQ ID NO: 26
26	gB-026	608 and 679	T608C and D679C	SEQ ID NO: 27
27	gB-027	609 and 678	E609C and F678C	SEQ ID NO: 28
28	gB-028	673 and 674	R673C and S674C	SEQ ID NO: 29
29	gB-029	676 and 677	N676C and V677C	SEQ ID NO: 30
30	gB-030	680 and 681	L680C and E681C	SEQ ID NO: 31
31	gB-031	683 and 684	I683C and M684C	SEQ ID NO: 32
32	gB-032	687 and 688	F687C and N688C	SEQ ID NO: 33
33	gB-033	690 and 691	Y690C and K691C	SEQ ID NO: 34
34	gB-034	695 and 724	K695C and K724C	SEQ ID NO: 35
35	gB-035	746 and 747	T746C and F747C	SEQ ID NO: 36
36	gB-036	749 and 750	K749C and N750C	SEQ ID NO: 37
37	gB-043; pSB01656	96 and 660	M96C and D660C	SEQ ID NO: 47
38	gB-044; pSB01657	98 and 658	Q98C and N658C	SEQ ID NO: 48
39	gB-045; pSB01658	100 and 258	T100C and R258C	SEQ ID NO: 49
40	gB-046; pSB01659	100 and 656	T100C and L656C	SEQ ID NO: 50
41	gB-047; pSB01660	100 and 658	T100C and N658C	SEQ ID NO: 51
42	gB-048; pSB01661	117 and 406	I117C and T406C	SEQ ID NO: 52
43	gB-049; pSB01662	117 and 407	I117C and S407C	SEQ ID NO: 53
44	gB-050; pSB01663	153 and 712	Y153C and L712C	SEQ ID NO: 54
45	gB-051; pSB01664	162 and 716	L162C and M716C	SEQ ID NO: 55
46	gB-052; pSB01665	217 and 587	D217C and S587C	SEQ ID NO: 56
47	gB-053; pSB01666	217 and 589	D217C and Y589C	SEQ ID NO: 57

48	gB-054; pSB01667	219 and 584	S219C and F584C	SEQ ID NO: 58
49	gB-055; pSB01668	219 and 585	S219C and A585C	SEQ ID NO: 59
50	gB-056; pSB01669	219 and 586	S219C and N586C	SEQ ID NO: 60
51	gB-057; pSB01670	220 and 659	N220C and T659C	SEQ ID NO: 61
52	gB-058; pSB01671	223 and 659	S223C and T659C	SEQ ID NO: 62
53	gB-059; pSB01672	240 and 732	W240C and A732C	SEQ ID NO: 63
54	gB-060; pSB01673	240 and 735	W240C and G735C	SEQ ID NO: 64
55	gB-061; pSB01674	242 and 728	Y242C and V728C	SEQ ID NO: 65
56	gB-062; pSB01675	242 and 731	Y242C and G731C	SEQ ID NO: 66
57	gB-063	258 and 656	R258C and L656C	SEQ ID NO: 67
58	gB-064	269 and 656	S269C and L656C	SEQ ID NO: 68
59	gB-065; pSB01678	269 and 658	S269C and N658C	SEQ ID NO: 69
60	gB-066; pSB01679	272 and 614	D272C and P614C	SEQ ID NO: 70
61	gB-067; pSB01680	273 and 629	V273C and V629C	SEQ ID NO: 71
62	gB-068; pSB01681	349 and 650	W349C and A650C	SEQ ID NO: 72
63	gB-069; pSB01682	367 and 500	S367C and A500C	SEQ ID NO: 73
64	gB-070; pSB01683	367 and 503	S367C and A503C	SEQ ID NO: 74
65	gB-071; pSB01684	370 and 501	K370C and Q501C	SEQ ID NO: 75
66	gB-072; pSB01685	522 and 683	K522C and I683C	SEQ ID NO: 76

67	gB-073; pSB01686	523 and 683	I523C and I683C	SEQ ID NO: 77
68	gB-074; pSB01687	523 and 684	I523C and M684C	SEQ ID NO: 78
69	gB-075; pSB01688	524 and 684	N524C and M684C	SEQ ID NO: 79
70	gB-076	525 and 681	P525C and E681C	SEQ ID NO: 80
71	gB-077	540 and 680	R540C and L680C	SEQ ID NO: 81
72	gB-078; pSB01691	541 and 680	F541C and L680C	SEQ ID NO: 82
73	gB-079; pSB01692	548 and 655	L548C and P655C	SEQ ID NO: 83
74	gB-080; pSB01693	549 and 658	A549C and N658C	SEQ ID NO: 84
75	gB-081; pSB01694	550 and 655	S550C and P655C	SEQ ID NO: 85
76	gB-082; pSB01695	550 and 657	S550C and E657C	SEQ ID NO: 86
77	gB-083; pSB01696	591 and 668	Q591C and S668C	SEQ ID NO: 87
78	gB-084; pSB01697	603 and 667	L603C and Y667C	SEQ ID NO: 88
79	gB-085; pSB01698	604 and 672	G604C and L672C	SEQ ID NO: 89
80	gB-086; pSB01699	607 and 688	R607C and N688C	SEQ ID NO: 90
81	gB-087; pSB01700	608 and 692	T608C and Q692C	SEQ ID NO: 91
82	gB-088; pSB01701	609 and 691	E609C and K691C	SEQ ID NO: 92
83	gB-089; pSB01702	610 and 674	E610C and S674C	SEQ ID NO: 93
84	gB-090; pSB01703	610 and 675	E610C and S675C	SEQ ID NO: 94
85	gB-091; pSB01704	612 and 663	Q612C and V663C	SEQ ID NO: 95

86	gB-092; pSB01705	737 and 755	V737C and F755C	SEQ ID NO: 96
87	gB-093; pSB01706	741 and 754	V741C and A754C	SEQ ID NO: 97
88	gB-094; pSB01707	741 and 755	V741C and F755C	SEQ ID NO: 98
89		356 and 500	I356C and A500C	
90		371 and 505	M371C and A505C	
91		371 and 506	M371C and W506C	
92		374 and 503	T374C and A503C	
93		160 and 708	Y160C and Y708C	
94		221 and 657	T221C and E657C	
95		541 and 681	F541C and E681C	
96		605 and 670	N605C and K670C	
97		219 and 587	S219C and S587C	
98		219 and 588	S219C and S588C	
99		219 and 589	S219C and Y589C	
100		217 and 586	D217C and N586C	
101		217 and 588	D217C and S588C	

In some embodiments, the polypeptide includes one or more (such as 2, 3, 4, 5, 6, 7, 8, 9 or 10) cysteine substitutions at any one of the positions listed in one or more of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 or 101 of column (ii) of **Table 2**, wherein the resulting polypeptide does not exhibit an HCMV postfusion conformation.

In some embodiments, the polypeptide includes one or more (such as 2, 3, 4, 5, 6, 7, 8, 9 or 10) cysteine substitutions at any one of the positions listed in one or more of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28,

29, 30, 31, 32, 33, 34, 35, 36, 47, 69 or 91 of column (ii) of **Table 2**, wherein the resulting polypeptide does not exhibit an HCMV postfusion conformation.

In some embodiments, the polypeptide includes two cysteine substitutions as listed at any one of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 or 101 of column (ii) of **Table 2**. In an embodiment, the resulting polypeptide does not exhibit an HCMV postfusion conformation. In an embodiment, the resulting polypeptide exhibits an HCMV prefusion conformation.

In a preferred embodiment, the polypeptide includes cysteine substitutions at positions 98 and 653 (listed in row 2, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In another preferred embodiment, the polypeptide includes cysteine substitutions at positions 100 and 269 (listed in row 5, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a further preferred embodiment, the polypeptide includes cysteine substitutions at positions 217 and 584 (listed in row 7, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes cysteine substitutions at positions 242 and 710 (listed in row 13, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In another preferred embodiment, the polypeptide includes cysteine substitutions at positions 242 and 714 (listed in row 14, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a further preferred embodiment, the polypeptide includes cysteine substitutions at positions 367 and 499 (listed in row 17, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes cysteine substitutions at positions 372 and 506 (listed in row 18, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In another preferred embodiment, the polypeptide includes cysteine substitutions at positions 550 and 652 (listed in row 22, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a further preferred embodiment, the polypeptide includes cysteine substitutions at positions 608 and 679 (listed in row 26, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes cysteine substitutions at positions 695 and 724 (listed in row 34,

column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB.

In some embodiments, the polypeptide includes one or more (such as 2, 3, 4, 5, 6, 7, 8, 9 or 10) disulfide bonds between pairs of cysteine residues substituted at any one of the pairs of positions listed in one or more of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 and 101 of column (ii) of **Table 2**. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 98 and 653 (listed in row 2, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In another preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 100 and 269 (listed in row 5, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a further preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 217 and 584 (listed in row 7, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 242 and 710 (listed in row 13, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In another preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 242 and 714 (listed in row 14, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a further preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 367 and 499 (listed in row 17, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 372 and 506 (listed in row 18, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In another preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 550 and 652 (listed in row 22, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a further preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at

positions 608 and 679 (listed in row 26, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 695 and 724 (listed in row 34, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 217 and 589 (listed in row 47, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 524 and 684 (listed in row 69, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 371 and 506 (listed in row 91, column (ii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB.

In further embodiments, the polypeptide includes one or more (such as 2, 3, 4, 5, 6, 7, 8, 9 or 10) disulfide bonds between pairs of cysteine residues that are introduced by cysteine amino acid substitutions at any one of the pairs of positions listed in one or more of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, or 36 of column (iii) of **Table 2**, wherein the polypeptide does not exhibit an HCMV postfusion conformation.

In further embodiments, the polypeptide includes one or more (such as 2, 3, 4, 5, 6, 7, 8, 9 or 10) disulfide bonds between pairs of cysteine residues that are introduced by cysteine amino acid substitutions at any one of the pairs of positions listed in one or more of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69 70, 71 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 or 101 of column (iii) of **Table 2**, wherein the polypeptide does not exhibit an HCMV postfusion conformation.

In some embodiments, the polypeptide includes a disulfide bond between pairs of cysteine residues substituted at any one of the pairs of positions listed at any one of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 or 101 of column (ii) of **Table 2**. In an embodiment, the resulting polypeptide does not exhibit

an HCMV postfusion conformation. In an embodiment, the resulting polypeptide exhibits an HCMV prefusion conformation.

In a preferred embodiment, the polypeptide includes cysteine substitutions at Q98C and I653C (listed in row 2, column (iii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In another preferred embodiment, the polypeptide includes cysteine substitutions at T100C and S269C (listed in row 5, column (iii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a further preferred embodiment, the polypeptide includes cysteine substitutions at D217C and F584C (listed in row 7, column (iii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes cysteine substitutions at Y242C and K710C (listed in row 13, column (iii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In another preferred embodiment, the polypeptide includes cysteine substitutions at Y242C and D714C (listed in row 14, column (iii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a further preferred embodiment, the polypeptide includes cysteine substitutions at S367C and L499C (listed in row 17, column (iii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes cysteine substitutions at T372C and W506C (listed in row 18, column (iii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In another preferred embodiment, the polypeptide includes cysteine substitutions at S550C and D652C (listed in row 22, column (iii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a further preferred embodiment, the polypeptide includes cysteine substitutions at T608C and D679C (listed in row 26, column (iii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes cysteine substitutions at K695C and K724C (listed in row 34, column (iii) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes cysteine substitutions at D217C and Y589C (listed in row 47, column (ili) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes cysteine substitutions at N524C and M684C (listed in row 69, column (iil) of **Table 2**) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes cysteine substitutions at M371C and W506C (listed in row 91, column (ili) of **Table**

2) according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB.

In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 96 and 660 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In another preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 98 and 658 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a further preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 100 and 258 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 100 and 656 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In another preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 100 and 658 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a further preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 117 and 406 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 117 and 407 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 153 and 712 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 162 and 716 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 217 and 587 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 217 and 589 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 219 and 584 according to

the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 219 and 585 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 219 and 586 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 220 and 659 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 223 and 659 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 240 and 732 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 240 and 735 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 242 and 728 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 242 and 731 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 258 and 656 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 269 and 656 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 269 and 658 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 272 and 614 according to the numbering of SEQ ID NO: 1, relative

to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 273 and 629 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 349 and 650 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 367 and 500 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 367 and 503 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 370 and 501 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 522 and 683 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 523 and 683 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 523 and 684 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 524 and 684 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 525 and 681 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 540 and 680 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 541 and 680 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of

the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 548 and 655 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 549 and 658 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 550 and 655 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 550 and 657 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 591 and 668 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 603 and 667 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 604 and 672 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 607 and 688 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 608 and 692 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 609 and 691 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 610 and 674 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 610 and 675 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred

embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 612 and 663 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB.In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 737 and 755 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 741 and 754 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB. In a preferred embodiment, the polypeptide includes a disulfide bond between a pair of cysteine residues substituted at positions 741 and 755 according to the numbering of SEQ ID NO: 1, relative to the amino acid sequence of the wild-type HCMV gB.

In some embodiments, the polypeptide includes a combination of two or more of the disulfide bonds between cysteine residues listed in **Table 2**. In some embodiments, the polypeptide includes an amino acid sequence having at least 80%,81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%,97%, 98%, 99%, or 100% identity to any sequence selected from: SEQ ID NO: 2; SEQ ID NO: 3; SEQ ID NO: 4; SEQ ID NO: 5; SEQ ID NO: 6; SEQ ID NO: 7; SEQ ID NO: 8; SEQ ID NO: 9; SEQ ID NO: 10; SEQ ID NO: 11; SEQ ID NO: 12; SEQ ID NO: 13; SEQ ID NO: 14; SEQ ID NO: 15; SEQ ID NO: 16; SEQ ID NO: 17; SEQ ID NO: 18; SEQ ID NO: 19; SEQ ID NO: 20; SEQ ID NO: 21; SEQ ID NO: 22; SEQ ID NO: 23; SEQ ID NO: 24; SEQ ID NO: 25; SEQ ID NO: 26; SEQ ID NO: 27; SEQ ID NO: 28; SEQ ID NO: 29; SEQ ID NO: 30; SEQ ID NO: 31; SEQ ID NO: 32; SEQ ID NO: 33; SEQ ID NO: 34; SEQ ID NO: 35; SEQ ID NO: 36; and SEQ ID NO: 37.

In some embodiments, the polypeptide includes an amino acid sequence having at least 80%,81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%,97%, 98%, 99%, or 100% identity to any sequence selected from: SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, SEQ ID NO: 52, SEQ ID NO: 53, SEQ ID NO: 54, SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 58, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, SEQ ID NO: 79, SEQ ID NO: 80, SEQ ID NO: 81, SEQ ID NO: 82, SEQ ID NO: 83, SEQ ID NO: 84, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 87, SEQ ID NO: 88, SEQ ID NO: 89, SEQ ID NO: 90, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, and SEQ ID NO: 98.

In some embodiments, the polypeptide includes an amino acid sequence having at least 80%,81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%,97%, 98%, preferably 99%, or 100% identity to any sequence selected from SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 58, and SEQ ID NO: 60.

In some embodiments, the polypeptide includes an amino acid sequence having at least 80%,81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%,97%, 98%, preferably 99%, or 100% identity to any sequence selected from SEQ ID NO: 51, SEQ ID NO: 73, SEQ ID NO: 70, and SEQ ID NO: 78.

In some embodiments, the composition preferably does not include a polypeptide having the sequence set forth in any one of SEQ ID NO: 59, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 71, SEQ ID NO: 52, SEQ ID NO: 96, and SEQ ID NO: 50.

In additional embodiments, the polypeptide includes the amino acid sequence as set forth in any one of the SEQ ID NOs listed in column (iv) of **Table 2**. That is, an exemplary polypeptide includes a polypeptide having the amino acid sequence selected from any one of: SEQ ID NO: 2; SEQ ID NO: 3; SEQ ID NO: 4; SEQ ID NO: 5; SEQ ID NO: 6; SEQ ID NO: 7; SEQ ID NO: 8; SEQ ID NO: 9; SEQ ID NO: 10; SEQ ID NO: 11; SEQ ID NO: 12; SEQ ID NO: 13; SEQ ID NO: 14; SEQ ID NO: 15; SEQ ID NO: 16; SEQ ID NO: 17; SEQ ID NO: 18; SEQ ID NO: 19; SEQ ID NO: 20; SEQ ID NO: 21; SEQ ID NO: 22; SEQ ID NO: 23; SEQ ID NO: 24; SEQ ID NO: 25; SEQ ID NO: 26; SEQ ID NO: 27; SEQ ID NO: 28; SEQ ID NO: 29; SEQ ID NO: 30; SEQ ID NO: 31; SEQ ID NO: 32; SEQ ID NO: 33; SEQ ID NO: 34; SEQ ID NO: 35; SEQ ID NO: 36; and SEQ ID NO: 37.

In some embodiments, the polypeptide has the amino acid sequence selected from any one of SEQ ID NO: 47, SEQ ID NO: 48, SEQ ID NO: 49, SEQ ID NO: 50, SEQ ID NO: 51, SEQ ID NO: 52, SEQ ID NO: 53, SEQ ID NO: 54, SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 58, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70, SEQ ID NO: 71, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 78, SEQ ID NO: 79, SEQ ID NO: 80, SEQ ID NO: 81, SEQ ID NO: 82, SEQ ID NO: 83, SEQ ID NO: 84, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 87, SEQ ID NO: 88, SEQ ID NO: 89, SEQ ID NO: 90, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 94, SEQ ID NO: 95, SEQ ID NO: 96, SEQ ID NO: 97, and SEQ ID NO: 98.

In a preferred embodiment, the polypeptide includes the amino acid sequence as set forth in any one of SEQ ID NO: 3; SEQ ID NO: 6; SEQ ID NO: 8; SEQ ID NO: 14; SEQ ID NO: 15; SEQ ID NO: 18; SEQ ID NO: 19; SEQ ID NO: 23; SEQ ID NO: 27; and SEQ ID NO: 35.

In some embodiments, the polypeptide comprises an amino acid sequence having at least 70%, 75%, 80%,81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%,97%, 98%, 99%, or 100% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 90% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 94% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 95% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 96% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 97% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 97% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 98% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.5% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.6% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.7% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.8% identity to amino acids 23 to 907 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.85% identity to amino acids 23 to 907 of SEQ ID NO: 1.

In some embodiments, the polypeptide comprises an amino acid sequence having at least 70%, 75%, 80%,81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%,97%, 98%, 99%, or 100% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 90% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 94% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 95% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 96% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 97% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 97% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment,

the polypeptide comprises an amino acid sequence having at least 98% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.5% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.6% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.7% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.8% identity to amino acids 23 to 707 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.85% identity to amino acids 23 to 707 of SEQ ID NO: 1.

In some embodiments, the polypeptide comprises an amino acid sequence having at least 70%, 75%, 80%,81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%,97%, 98%, 99%, or 100% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 90% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 94% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 95% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 96% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 97% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 97% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 98% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.5% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.6% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.7% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.8% identity to amino acids 23 to 646 of SEQ ID NO: 1. In an embodiment, the polypeptide comprises an amino acid sequence having at least 99.85% identity to amino acids 23 to 646 of SEQ ID NO: 1.

In some embodiments, amino acids can be inserted (or deleted) from the native HCMV gB sequence to adjust the alignment of residues in the polypeptide structure, such

that particular residue pairs are within a sufficiently close distance to form a disulfide bond in the prefusion, but not postfusion, conformation. In several such embodiments, the polypeptide includes a disulfide bond between cysteine residues located at any of the pairs of positions listed in one or more of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 or 101 of column (ii) of **Table 2**, in addition to including at least one amino acid insertion.

In some embodiments, the polypeptide includes a phenylalanine substitution as compared to a native HCMV gB. In some embodiments, the polypeptide includes a leucine substitution as compared to a native HCMV gB. In some embodiments, the polypeptide may be stabilized by amino acid mutations (such as, for example, phenylalanine (F) and leucine (L) substitutions) that decrease ionic repulsion between resides that are proximate to each other in the folded structure of the polypeptide, as compared to a HCMV gB polypeptide in postfusion conformation. In some embodiments, the polypeptide may be stabilized by amino acid mutations that increase ionic attraction between residues that are proximate to each other in the folded structure of the polypeptide, as compared to a HCMV gB in postfusion conformation.

Exemplary mutations include any mutation selected from **Table 3**, according to the numbering of SEQ ID NO: 1 as compared to a native HCMV gB:

Table 3. Exemplary Phenylalanine (F) and Leucine (L) Substitutions

Row	(i) Mutant ID	(ii) Mutated residue position, according to the numbering of SEQ ID NO: 1	(iii) Substitutions corresponding to SEQ ID NO: 1	(iv) Exemplary sequence that includes the mutation is set forth in:
1	gB-037	670	K670L	SEQ ID NO: 38
2	gB-038	670	K670F	SEQ ID NO: 39
3	gB-039	673	R673L	SEQ ID NO: 40
4	gB-040	673	R673F	SEQ ID NO: 41
5	gB-041	691	K691L	SEQ ID NO: 42
6	gB-042	691	K691F	SEQ ID NO: 43
7	pSB02041	686	E686F	
8		686	E686L	

9		354	R354F	
10		573	R573F	
11		101 and 260	D101L and K260L	

Table 4. Additional substitutions

Row	(i) Mutant ID	(ii) Mutated residue position, according to the numbering of SEQ ID NO: 1	(iii) Substitutions corresponding to SEQ ID NO: 1	(iv) Exemplary sequence that includes the mutation is set forth in:
1	gB-095; pSB01708	679	D679S	SEQ ID NO: 99
2	gB-096; pSB01709	679	D679N	SEQ ID NO: 100
3	gB-097	682	E682S	SEQ ID NO: 101
4	gB-098	682	E682Q	SEQ ID NO: 102
5	gB-099; pSB01712	686	E686S	SEQ ID NO: 103
6	gB-100; pSB01713	686	E686Q	SEQ ID NO: 104
7	gB-101	118	N118P	SEQ ID NO: 105
8	gB-102; pSB01715	646	D646P	SEQ ID NO: 106
9		240	W240A	
10		246	C246S	
11		675	I675S	
12		155-157	Y155G I156H H157R	
13	pSB02043	686	E686I	
14	pSB02044	686	E686V	
15		679	D679A	
16		696 and 697	Y696C and V697C	
17		703 and 704	D703C and P704C	
18		767 and 768	I767C and I768C	
19		217, 589, 703, and 704	D217C, Y589C, D703C, and P704C	

20		217, 589, 696, and 697	D217C, Y589C, Y696C, and V697C	
21	pSB2795	217, 371, 506, 524 and 589	D217C, M371C, W506C, N524C and Y589C	
22	pSB2796	217, 371, 506, and 589	D217C, M371C, W506C, and Y589C	
23		217, 524, 589, and 684	D217C, N524C, Y589C, M684C	
24		217, 524, 589, 684, 703, and 704	D217C, N524C, Y589C, M684C, D703C, and P704C	
25		655	P655S	
26	pSB2797; pSB2968	217, 371, 506, 524 589 and 684	D217C, M371C, W506C, N524C Y589C and M684C	
27	pSB2797; pSB2968	648 -653	M648G I649S A650G L651K D652D I653G	
28		693	R693V	
29		685	R685A	
30		678	F678S	
31		680	L680T	

In some embodiments, the polypeptide includes one or more (such as 2, 3, 4, 5, 6, 7, 8, 9 or 10) residues substituted at any one of the positions listed in one or more of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 or 11 of column (ii) of **Table 3**, wherein the polypeptide does not exhibit an HCMV gB postfusion conformation. In an embodiment, the resulting polypeptide exhibits an HCMV gB prefusion conformation.

In some embodiments, the polypeptide includes one or more (such as 2, 3, 4, 5, 6, 7, 8, 9 or 10) residues substituted at any one of the positions listed in one or more of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 or 31 of column (ii) of **Table 4**, wherein the polypeptide does not exhibit an HCMV gB postfusion conformation. In an embodiment, the resulting polypeptide exhibits an HCMV gB prefusion conformation.

In some embodiments, the polypeptide includes a mutation at position 670 (listed in rows 1 and 2, column (ii) of **Table 3**) according to the numbering of SEQ ID NO: 1. In some embodiments, the polypeptide includes a mutation at position 673 (listed in rows 3 and 4, column (ii) of**Table 3**) according to the numbering of SEQ ID NO: 1. In some embodiments, the polypeptide includes a mutation at position 691 (listed in rows 5 and 6, column (ii) of **Table 3**) according to the numbering of SEQ ID NO: 1.

In some embodiments, the polypeptide includes a mutation at position 670 according to the numbering of SEQ ID NO: 1. In some embodiments, the polypeptide includes a mutation at position 682 according to the numbering of SEQ ID NO: 1. In some embodiments, the polypeptide includes a mutation at position 686 according to the numbering of SEQ ID NO: 1. In some embodiments, the polypeptide includes a mutation at position 118 according to the numbering of SEQ ID NO: 1. In some embodiments, the polypeptide includes a mutation at position 646 according to the numbering of SEQ ID NO: 1.

In further embodiments, the polypeptide includes an electrostatic mutation that is introduced by substitutions at any one of the positions listed in one or more of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 or 11 of column (iii) of **Table 3**, wherein the polypeptide does not exhibit an HCMV postfusion conformation.

In a preferred embodiment, the polypeptide includes a substitution K670L (listed in row 1, column (iii) of **Table 3**) according to the numbering of SEQ ID NO: 1. In another preferred embodiment, the polypeptide includes a substitution K670F (listed in row 2, column (iii) of **Table 3**) according to the numbering of SEQ ID NO: 1. In a further preferred embodiment, the polypeptide includes a substitution R673L (listed in row 3, column (iii) of **Table 3**) according to the numbering of SEQ ID NO: 1. In a preferred embodiment, the polypeptide includes a substitution R673F (listed in row 4, column (iii) of **Table 3**) according to the numbering of SEQ ID NO: 1. In another preferred embodiment, the polypeptide includes a substitution K691L (listed in row 5, column (iii) of) **Table 3** according to the numbering of SEQ ID NO: 1. In a further preferred embodiment, the polypeptide includes a substitution K691F (listed in row 6, column (iii) of **Table 3**) according to the numbering of SEQ ID NO: 1. In a further preferred embodiment, the polypeptide includes a substitution K691F (listed in row 7, column (iii) of **Table 3**) according to the numbering of SEQ ID NO: 1. In a further preferred embodiment, the polypeptide includes a substitution K691F (listed in row 8, column (iii) of **Table 3**) according to the numbering of SEQ ID NO: 1. In a further preferred embodiment, the polypeptide includes a substitution K691F (listed in row 9, column (iii) of **Table 3**) according to the numbering of SEQ ID NO: 1. In a further preferred embodiment, the polypeptide includes a substitution K691F (listed in row 10, column (iii) of **Table 3**) according to the numbering of SEQ ID NO: 1. In a further preferred embodiment, the polypeptide includes a substitution K691F (listed in row 11, column (iii) of **Table 3**) according to the numbering of SEQ ID NO: 1.

In some embodiments, the polypeptide includes a combination of two or more of the phenylalanine (F) and leucine (L) substitutions listed in **Table 3**.

In a preferred embodiment, the polypeptide includes a substitution D679S according to the numbering of SEQ ID NO: 1. In another preferred embodiment, the polypeptide includes a substitution D679N according to the numbering of SEQ ID NO: 1. In another preferred embodiment, the polypeptide includes a substitution E682S according to the numbering of SEQ ID NO: 1. In another preferred embodiment, the polypeptide includes a substitution E682Q according to the numbering of SEQ ID NO: 1. In another preferred embodiment, the polypeptide includes a substitution E686S according to the numbering of SEQ ID NO: 1. In another preferred embodiment, the polypeptide includes a substitution E686Q according to the numbering of SEQ ID NO: 1. In another preferred embodiment, the polypeptide includes a substitution N118P according to the numbering of SEQ ID NO: 1. In another preferred embodiment, the polypeptide includes a substitution D646P according to the numbering of SEQ ID NO: 1.

In some embodiments, the polypeptide includes a combination of two or more of the phenylalanine (F) and leucine (L) substitutions listed in **Table 3**. In some embodiments, the polypeptide includes an amino acid sequence having at least 70%, 75%, 80%,81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% identity to any sequence selected from: SEQ ID NO: 38; SEQ ID NO: 39; SEQ ID NO: 40; SEQ ID NO: 41; SEQ ID NO: 42; and SEQ ID NO: 43.

In some embodiments, the polypeptide includes an amino acid sequence having at least 70%, 75%, 80%,81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% identity to any sequence selected from: SEQ ID NO: 99; SEQ ID NO: 100, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, and SEQ ID NO: 106.

In additional embodiments, the polypeptide includes the amino acid sequence as set forth in any one of the SEQ ID NOs listed in column (iv) of **Table 3**. That is, an exemplary polypeptide includes a polypeptide having the amino acid sequence selected from any one of: SEQ ID NO: 38; SEQ ID NO: 39; SEQ ID NO: 40; SEQ ID NO: 41; SEQ ID NO: 42; and SEQ ID NO: 43. In some embodiments, the polypeptide has the amino acid sequence selected from any one of: SEQ ID NO: 99; SEQ ID NO: 100, SEQ ID NO: 102, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, and SEQ ID NO: 106.

In some embodiments, the polypeptide includes one or more (such as 2, 3, 4, 5, 6, 7, 8, 9 or 10) residues substituted at any one of the positions listed in one or more of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 or 31 of column (iii) of **Table 4**, wherein the polypeptide does not exhibit an HCMV gB

postfusion conformation. In an embodiment, the resulting polypeptide exhibits an HCMV gB prefusion conformation.

In some embodiments, amino acids can be inserted (or deleted) from the native HCMV gB sequence to adjust the alignment of residues in the polypeptide structure, such that particular residue pairs are within a sufficiently close distance to form a desired electrostatic interaction in the prefusion, but not postfusion, conformation. In several such embodiments, the polypeptide includes a desired electrostatic interaction at any of the positions listed in one or more of rows 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11 of column (ii) of **Table 3**, wherein the polypeptide does not exhibit an HCMV postfusion conformation.

This invention provides a mutant of a wild-type cytomegalovirus (CMV) glycoprotein B (gB) protein, which mutant comprises at least two amino acid mutations relative to the amino acid sequence of the wild-type CMV gB protein, and wherein the amino acid mutation is selected from the group consisting of:

(1) an engineered disulfide bond mutation;

(2) an additional mutation; and

(3) a combination of at least one engineered disulfide mutation and at least one additional mutation.

In one aspect, the amino acid mutations comprise a combination of at least two engineered disulfide mutations and at least one additional mutation. In another aspect, the mutant of a wild-type CMV gB protein is in the form of a trimer.

In another aspect, the mutant of a wild-type CMV gB protein has increased stability in prefusion form as compared with the corresponding wild-type CMV gB protein, wherein the stability is measured by binding of a prefusion-specific antibody, thermal shift assay or EM imaging.

In another aspect, the mutant of the wild-type CMV gB is Towne strain.

In another aspect of the invention, the engineered disulfide mutation is selected from the group consisting of: D217C and Y589C; M371C and W506C; and N524C and M684C.

In a further aspect of the invention, the additional mutation is selected from the group consisting of:

(1) substitution of YIH at positions 155-157 with GHR;

(2) substitution of W at position 240 with A;

(3) substitution of C at position 246 with S;

(4) substitution of P at position 655 with S;

(5) substitution of F at position 678 with S; and

(6) substitution of L at position 680 with T;

(7) substitution of R at position 685 with A;

(8) substitution of MIALDI at positions 648-653 with GSGKDG;

(9) substitution of R at position 693 with V;

(10) substitution of I at position 675 with S;

(11) substitution of I at positions 767 and 768 with C;

(12) substitution of D at position 703 and P at position 704 with C; and

(13) substitution of Y at position 696 and V at position 697 with C.

In another aspect of the invention, the additional mutation is selected from the group consisting of:

(1) substitution of YIH at positions 155-157 with GHR;

(2) substitution of W at position 240 with A;

(3) substitution of C at position 246 with S; and

(4) substitution of I at position 675 with S.

In another aspect of the invention, the amino acid mutation is a combination of at least two engineered disulfide mutations and at least one additional mutation, and wherein:

(i) the engineered disulfide mutations are selected from the group consisting of: D217C and Y589C; M371C and W506C; and N524C and M684C; and

(ii) the additional mutation is selected from the group consisting of:

(1) substitution of YIH at positions 155-157 with GHR;

(2) substitution of W at position 240 with A;

(3) substitution of C at position 246 with S;

(4) substitution of P at position 655 with S;

(5) substitution of F at position 678 with S; and

(6) substitution of L at position 680 with T;

(7) substitution of R at position 685 with A;

(8) substitution of MIALDI at positions 648-653 with GSGKDG;

(9) substitution of R at position 693 with V;

(10) substitution of I at position 675 with S;

(11) substitution of I at positions 767 and 768 with C;

(12) substitution of D at position 703 and P at position 704 with C; and

(13) substitution of Y at position 696 and V at position 697 with C.

In another aspect of the invention, the amino acid mutations are a combination of mutations selected from the group consisting of:

(1) combination of D217C and Y589C, M371C and W506C, and I675S;

(2) combination of D217C and Y589C, N524C and M684C, and I675S;

(3) combination of D217C and Y589C, M371C and W506C, Y155G I156H H157R, W240A, C246S and I675S; and

(4) combination of D217C and Y589C, N524C and M684C, Y155G I156H H157R, W240A, C246S and I675S.

In another aspect of the invention, the mutant comprises a cysteine (C) at position 217 (217C) and at position 589 (589C), a cysteine (C) at position 371 (371C) and at position 506 (506C), and a serine (S) at position 675 (675S), and wherein the mutant is selected from the group consisting of:

(1) a mutant comprising the amino acid sequence set forth in SEQ ID NO:257; and

(2) a mutant comprising an amino acid sequence that is at least 97%, 98% or 99% identical to the amino acid sequence of SEQ ID NO:257.

In another aspect of the invention, the mutant comprises a cysteine (C) at position 217 (217C) and at position 589 (589C), a cysteine (C) at position 524 (524C) and at position 684 (684C), and a serine (S) at position 675 (675S), and wherein the mutant is selected from the group consisting of:

(1) a mutant comprising the amino acid sequence of SEQ ID NO: 259; and

(2) a mutant comprising an amino acid sequence that is at least 97%, 98% or 99% identical to the amino acid sequence of SEQ ID NO: 259.

In another aspect of the invention, the mutant comprises a cysteine (C) at position 217 (217C) and at position 589 (589C), a cysteine (C) at position 371 (371C) and at position 506 (506C), a serine (S) at position 675 (675S), a glycine (G) at position 155 (155G), a histidine at position 156 (156H), an arginine at position 157 (157R), an alanine at position 240 (240A), and a serine at position 246 (246S), and wherein the mutant is selected from the group consisting of:

(1) a mutant comprising the amino acid sequence set forth in SEQ ID NO:261; and

(2) a mutant comprising an amino acid sequence that is at least 97%, 98% or 99% identical to the amino acid sequence of SEQ ID NO: 261; (1) a mutant comprising the amino acid sequence set forth in SEQ ID NO: 261;

(3) a mutant comprising the amino acid sequence set forth in SEQ ID NO: 265; and

(4) a mutant comprising an amino acid sequence that is at least 97%, 98% or 99% identical to the amino acid sequence of SEQ ID NO:265.

In another aspect of the invention, the mutant comprises a cysteine (C) at position 217 (217C) and at position 589 (589C), a cysteine (C) at position 524 (524C) and at position 684 (684C), a serine (S) at position 675 (675S), a glycine (G) at position 155 (155G), a histidine at position 156 (156H), an arginine at position 157 (157R), an alanine at position 240 (240A), and a serine at position 246 (246S), and wherein the mutant is selected from the group consisting of:

(1) a mutant comprising the amino acid sequence of SEQ ID NO: 263; and

(2) a mutant comprising an amino acid sequence that is at least 97%, 98% or 99% identical to the amino acid sequence of SEQ ID NO:263.

In another aspect of the invention, the amino acid sequence of the wildtype CMV gB polypeptide is set forth in SEQ ID NO: 1.

In another aspect of the invention, the amino acid sequence of the mutant does not comprise a signal sequence. In another aspect of the invention, the mutant comprises residues 23-907 of SEQ ID NO: 1.

In another aspect of the invention, the amino acid sequence of the mutant does not comprise an MPR, TM or CT domain. In another aspect of the invention, the mutant comprises residues 23-707 of SEQ ID NO: 1.

In another aspect of the invention, the amino acid sequence of the mutant comprises a truncated Domain V region. In another aspect of the invention, the mutant comprises residues 23-702 or 23-703 of SEQ ID NO: 1.

In another aspect of the invention, the amino acid sequence of the mutant does not comprise a Domain V region. In another aspect of the invention, the mutant comprises residues 23-646 of SEQ ID NO: 1.

In another aspect of the invention, the mutant further comprises a trimerization motif linked to the C terminus of the mutant. In another aspect of the invention, the trimerization motif is selected from the group consisting of:

(i) an inter-protomer disulfide ring;

(ii) GCN4;

(iii) T4 fibritin foldon; and

(iv) C-terminus fusion sequence.

In another aspect of the invention,

(i) the GCN4 comprises an amino acid sequence as set forth in SEQ ID NOs: 269, 272 or 273;

(ii) the T4 fibritin foldon comprises an amino acid sequence as set forth in SEQ ID NO: 271; or

(iii) the C-terminus fusion sequence comprises an amino acid sequence as set forth in SEQ ID NO: 274.

In another aspect of the invention, the inter-protomer disulfide ring comprises at least two engineered cysteine mutations selected from:

(i) 696C and 697C;

(ii) 703C and 704C; or

(iii) 767C and 768C.

Several exogenous multimerization domains that promote formation of stable trimers of soluble proteins are known in the art. Examples of such multimerization domains that can

be linked to a mutant provided by the present disclosure include, but are not limited to: (1) the GCN4 leucine zipper (Harbury et al. 1993 Science 262: 1401-1407); (2) the trimerization motif from the lung surfactant protein (Hoppe et al. 1994 FEB S Lett 344: 191-195); (3) collagen (McAlinden et al. 2003 Biol Chem 278:42200-42207); and (4) the phage T4 fibritin foldon (Miroshnikov et al. 1998 Protein Eng 11:329-414). In some embodiments, a multimerization domain is linked to a CMV gB mutant at the C-terminus. In specific embodiments, the trimerization domain is set forth in SEQ ID NOs: 269-274. Methods for connecting the multimerization domain to the gB polypeptide are well known in the art.

As used herein, "inter-protomer disulfide ring" shall mean a covalent ring formation between three helices achieved by three interhelical disulfide bonds formed by a ring system comprising pairs of adjacent cysteine residues, which establishes a functional topology and stabilization of the multimer (e.g. trimer). *See*, Stewart-Jones GBE, et al. (2015) A Cysteine Zipper Stabilizes a Pre-Fusion F Glycoprotein Vaccine for Respiratory Syncytial Virus. PLoS ONE 10(6): e0128779. doi:10.1371/journal.pone.0128779.

In another aspect of the invention, the mutant is secreted. In another aspect of the invention, the mutant is soluble.

In another aspect of the invention, the wildtype CMV gB polypeptide sequence is selected from SEQ ID NOs: 107-140 or 224.

In another aspect of the invention, the wildtype CMV gB polypeptide sequence is encoded by the polynucleotide sequences set forth in SEQ ID NOs: 225-254.

This invention also provides a nucleic acid molecule comprising nucleotides that encode an amino acid sequence of a CMV gB protein mutant according to the embodiment and aspects described herein.

In one aspect, the nucleic acid comprises nucleotides having a sequence set forth in SEQ ID NOs: 225-254.

This invention also provides a pharmaceutical composition comprising (i) a CMV gB protein mutant according to the embodiments and aspects described herein and (ii) a pharmaceutically acceptable carrier.

In one aspect, the pharmaceutical composition is a vaccine.

This invention also provides a method of reducing CMV infection in a subject comprising administering to the subject an effective amount of the vaccine set forth in the embodiments herein.

This invention also provides a method of eliciting an immune response to CMV infection in a subject comprising administering to the subject an effective amount of the vaccine set forth in the embodiments herein.

This invention also provides a method of preventing CMV infection in a subject comprising administering to the subject an effective amount of the vaccine set forth in the embodiments herein.

In one aspect, the subject is a human.

2. Further Embodiments of the polypeptide

In some embodiments, the polypeptide does not include a mutation at any one of the following amino acid positions: 280, 281, 283, 284, 285, 286, 290, 292, 295, 297, 298, 299, or any combinations thereof, according to the numbering of reference sequence SEQ ID NO: 46. In some exemplary embodiments, the polypeptide does not include a substitution of any one of the following residues, according to the numbering of reference sequence SEQ ID NO: 46: Y280; N281; T283; N284; R285; N286; F290; E292; N293; F297; F298; I299; F298; and any combinations thereof. Without being bound by theory or mechanism, residues important for neutralizing antibodies may include Y280/N284 and Y280/N293/D295. Accordingly, in a preferred embodiment, the polypeptide does not include mutations at Y280, N293, N284, and D295, as compared to reference sequence SEQ ID NO: 46.

In some embodiments, the polypeptide does not include a mutation at any one of the following amino acid positions: R562, P577, S587, Y588, G592, G595, L601/H605, C610, L612, P613, Y625, Y627, F632, and K633, and any combinations thereof, according to the numbering of reference sequence SEQ ID NO: 44. In some embodiments, the polypeptide does not include any one of the following amino acid mutations: R562C, P577L, S587L, Y588C, G592S, G595D, L601P/H605N, C610Y, L612F, P613Y, Y625C, Y627C, F632L, and K633T, or any combinations thereof, according to the numbering of reference sequence SEQ ID NO: 44. Without being bound by theory or mechanism, P577 and Y627 are believed to be located next to each other within the domain IV core while C610 participates in a conserved disulfide bond. Thus, all three residues may help maintain the position of domain IV in the prefusion structure and, therefore, the stability of entire antigenic site AD-1. Moreover, without being bound by theory or mechanism, F632 and G595 are believed to be exposed on the surface of the prefusion form of gB. Accordingly, in a preferred embodiment, the polypeptide does not include a mutation at P577, Y627, C610, F632, and G595, or any combinations thereof, according to the numbering of reference sequence SEQ ID NO: 44.

3. Cavity filling mutations

In still other embodiments, the polypeptide includes amino acid mutations that are one or more cavity filling mutations. Examples of amino acids that may be replaced with the goal of cavity filling include small aliphatic (e.g. Gly, Ala, and Val) or small polar amino acids (e.g. Ser and Thr) and amino acids that are buried in the pre-fusion conformation, but

exposed to solvent in the post-fusion conformation. Examples of the replacement amino acids include large aliphatic amino acids (Ile, Leu and Met) or large aromatic amino acids (His, Phe, Tyr and Trp).

4. Combination of Mutations

In another aspect, the present invention relates to a polypeptide that includes a combination of two or more different types of mutations selected from at least two engineered disulfide bond mutations, and at least one additional mutation such as a cavity filling mutation, anelectrostatic mutation, an inter-protomer disulfide ring each as described herein. In some embodiments, the polypeptide includes at least two disulfide bond mutations and at least one electrostatic mutation. More specifically, in some embodiments, the polypeptide includes at least two cysteine substitutions and at least one phenylalanine substitution. In some embodiments, the polypeptide includes at least two cysteine substitutions and at least one leucine substitution.

In some further embodiments, the polypeptide includes at least two mutations selected from any one of the mutations in **Table 2** and at least one mutation selected from any one of the mutations in **Table 3**. In some further embodiments, the polypeptide includes at least two mutations selected from any one of the mutations in **Table 2** and at least one mutation selected from any one of the mutations in **Table 4**. In some further embodiments, the polypeptide includes at least two mutations selected from any one of the mutations in **Table 2,** at least one mutation selected from any one of the mutations in **Table 3** and at least one mutation selected from any one of the mutations in **Table 4**.

Preparation of the polypeptide

The polypeptides described herein may be prepared by routine methods known in the art, such as by expression in a recombinant host system using a suitable vector. Suitable recombinant host cells include, for example, insect cells, mammalian cells, avian cells, bacteria, and yeast cells. Examples of suitable insect cells include, for example, Sf9 cells, Sf21 cells, Tn5 cells, Schneider S2 cells, and HIGH FIVE cells (a clonal isolate derived from the parental Trichoplusia ni BTI- TN-5B1-4 cell line). Examples of suitable mammalian cells include Chinese hamster ovary (CHO) cells, human embryonic kidney cells (HEK293 or Expi 293 cells, typically transformed by sheared adenovirus type 5 DNA), NIH-3T3 cells, 293-T cells, Vero cells, and HeLa cells. Suitable avian cells include, for example, chicken embryonic stem cells (e.g., EBx.RTM. cells), chicken embryonic fibroblasts, chicken embryonic germ cells, quail fibroblasts (e.g. ELL-O), and duck cells. Suitable insect cell expression systems, such as baculovirus-vectored systems, are known to those of skill in the art. Materials and methods for baculovirus/insect cell expression systems are commercially available in kit form from. Avian cell expression systems are also known to those of skill in

the art. Similarly, bacterial and mammalian cell expression systems are also known in the art.

A number of suitable vectors for expression of recombinant proteins in insect or mammalian cells are well-known and conventional in the art. Suitable vectors can contain a number of components, including, but not limited to one or more of the following: an origin of replication; a selectable marker gene; one or more expression control elements, such as a transcriptional control element (e.g., a promoter, an enhancer, a terminator), and/or one or more translation signals; and a signal sequence or leader sequence for targeting to the secretory pathway in a selected host cell (e.g., of mammalian origin or from a heterologous mammalian or non-mammalian species). For example, for expression in insect cells a suitable baculovirus expression vector, such as PFASTBAC, is used to produce recombinant baculovirus particles. The baculovirus particles are amplified and used to infect insect cells to express recombinant protein. For expression in mammalian cells, a vector that will drive expression of the construct in the desired mammalian host cell (e.g., Chinese hamster ovary cells) is used.

The polypeptide can be purified using any suitable methods. For example, methods for purifying a polypeptide by immunoaffinity chromatography are known in the art. Suitable methods for purifying desired polypeptides including precipitation and various types of chromatography, such as hydrophobic interaction, ion exchange, affinity, chelating and size exclusion are known in the art. Suitable purification schemes can be created using two or more of these or other suitable methods. If desired, the polypeptide may include a "tag" that facilitates purification, such as an epitope tag or a histidine tag. Such tagged polypeptides can be purified, for example from conditioned media, by chelating chromatography or affinity chromatography.

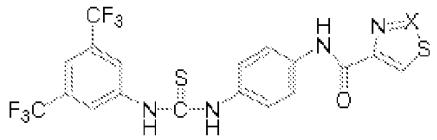
Nucleic Acids Encoding polypeptides

In another aspect, the invention relates to nucleic acid molecules that encode a polypeptide described herein. These nucleic acid molecules include DNA, cDNA, and RNA sequences. Nucleic acid molecules that encode only the ectodomain of the polypeptide are also encompassed by the invention. The nucleic acid molecule can be incorporated into a vector, such as an expression vector.

In some embodiments, the nucleic acid includes a self-replicating RNA molecule. In some embodiments, the nucleic acid includes a modified RNA molecule. In another aspect, the invention relates to a composition including a nucleic acid according to any one of the embodiments described herein.

Compound-stabilized Polypeptide

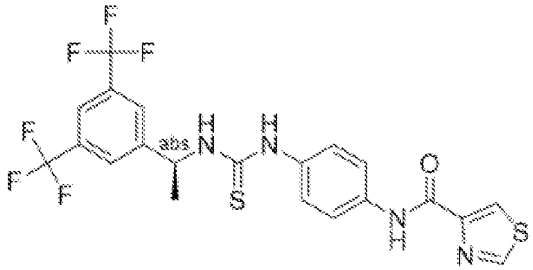
The inventors discovered a polypeptide stabilized in a prefusion conformation that can be identified by, for example, the binding of a bis(aryl)thiourea compound to an HCMV gB. Bis(aryl)thiourea compounds, as exemplified by structures 1a,b (Formula I), are highly potent and specific inhibitors of CMV. In one aspect, the invention relates to a polypeptide that is capable of binding to a bis(aryl)thiourea compound. In preferred embodiments, the compound does not bind to a postfusion conformation of the HCMV gB polypeptide.



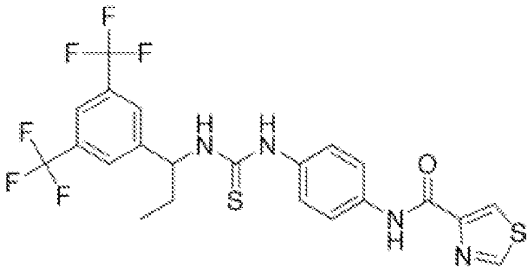
1a (X = CH)
1b (X = N)

(Formula I)

In a preferred embodiment, the compound is a bis(aryl)thiourea thioziole analog thereof. Most preferably, in some embodiments, the compound is N-{4-[({(1*S*)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl}carbamothioyl)amino]phenyl}-1,3-thiazole-4-carboxamide, having the following structure:



In another embodiment, the compound has the following structure:



In several embodiments, the polypeptide includes an HCMV gB prefusion epitope, which is not present in a native HCMV gB a postfusion conformation.

In some embodiments, at least about 90% of the polypeptides (such as at least about 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99% or 99.9% of the polypeptides in the homogeneous population are bound by a bis(aryl)thiourea compound (e.g., such as a thiazole analog of bis(aryl)thiourea compounds, more preferably N-{4-[({(1*S*)-1-[3,5-bis(trifluoromethyl)phenyl] ethyl}carbamothioyl) amino]phenyl}-1,3-thiazole-4-carboxamide). In some embodiments, the polypeptide that can bind to the bis(aryl)thiourea compound does not have a postfusion conformation. Rather, the polypeptide has a prefusion conformation, such as an HCMV gB prefusion conformation.

In another embodiment, the polypeptide can be at least 80% isolated, at least 90%, 95%, 98%, 99%, or preferably 99.9% isolated from HCMV gB polypeptides that are not specifically bound by a bis(aryl)thiourea compound.

Compositions Including a Polypeptide and Methods of Use Thereof

The invention relates to compositions and methods of using the polypeptide described herein, or a nucleic acid encoding such polypeptide described herein. For example, the polypeptide of the invention can be delivered directly as a component of an immunogenic composition. Alternatively, nucleic acids that encode the polypeptide of the invention can be administered to produce the polypeptide or immunogenic fragment *in vivo*. Certain preferred embodiments, such as protein formulations, recombinant nucleic acids (e.g., DNA, RNA, self-replicating RNA, or any variation thereof) and viral vectors (e.g., live, single-round, non-replicative assembled virions, or otherwise virus-like particles, or alphavirus VRP) that contain sequences encoding polypeptides are further described herein and may be included in the composition.

In one aspect, the invention provides an immunogenic composition comprising the polypeptide described herein. The immunogenic composition can include additional CMV proteins, such as gO, gH, gL, pUL128, pUL130, pUL131, pp65, an immunogenic fragment thereof, or a combination thereof. For example, the polypeptide can be combined with CMV pentameric complex comprising: gH or a pentamer-forming fragment thereof, gL or a pentamer-forming fragment thereof, pUL128 or a pentamer-forming fragment thereof, pUL130 or a pentamer-forming fragment thereof, and pUL131 or a pentamer-forming fragment thereof. The polypeptide of the invention can also be combined with CMV trimeric complex comprising: gH or a trimer-forming fragment thereof, gL or a trimer-forming fragment thereof, and gO or a trimer- forming fragment thereof.

In another aspect, the invention relates to a composition including a polynucleotide that may elicit an immune response in a mammal. The polynucleotide encodes at least one polypeptide of interest, e.g., an antigen. Antigens disclosed herein may be wild type (i.e., derived from the infectious agent) or preferably modified (e.g., engineered, designed or artificial). The nucleic acid molecules described herein, specifically polynucleotides, in some

embodiments, encode one or more peptides or polypeptides of interest. Such peptides or polypeptides may serve as an antigen or antigenic molecule. The term "nucleic acid" includes any compound that includes a polymer of nucleotides. These polymers are referred to as “polynucleotides.” Exemplary nucleic acids or polynucleotides of the invention include, but are not limited to, ribonucleic acids (RNAs), including mRNA, and deoxyribonucleic acids (DNAs).

In some embodiments, the composition includes DNA encoding a polypeptide or fragment thereof described herein. In some embodiments, the composition includes RNA encoding a polypeptide or fragment thereof described herein. In some embodiments, the composition includes an mRNA polynucleotide encoding a polypeptide or fragment thereof described herein. Such compositions may produce the appropriate protein conformation upon translation.

In one aspect, the invention relates to a composition that includes at least one polynucleotide encoding a polypeptide including at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB.

In one aspect, the invention relates to a composition that includes at least one DNA polynucleotide encoding a polypeptide including at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB.

In one aspect, the invention relates to a composition that includes at least one RNA polynucleotide encoding a polypeptide including at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB.

In some embodiments, the invention relates to a composition that includes at least one polynucleotide encoding at least one hCMV gB polypeptide or an immunogenic fragment or epitope thereof.

In some embodiments, the composition includes at least one polynucleotide encoding two or more antigenic polypeptides or an immunogenic fragment or epitope thereof. In some embodiments, the composition includes two or more polynucleotides encoding two or more antigenic polypeptides or immunogenic fragments or epitopes thereof. The one or more antigenic polypeptides may be encoded on a single polynucleotide or may be encoded individually on multiple (e.g., two or more) polynucleotides.

In another aspect, the invention relates to a composition that includes (a) a polynucleotide encoding a polypeptide including at least one introduced amino acid mutation relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB); and (b) a polynucleotide encoding an additional polypeptide.

In another aspect, the invention relates to a composition that includes (a) a polynucleotide encoding a polypeptide including at least one introduced amino acid mutation relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB); and (b) a

polynucleotide encoding an additional polypeptide, preferably an HCMV antigenic polypeptide. The additional polypeptide may be selected from HCMV gH, gL, gB, gO, gN, and gM and an immunogenic fragment or epitope thereof. In some embodiments, the additional polypeptide is HCMV pp65. In some embodiments, the additional polypeptide may be selected from gH, gL, gO, gM, gN, UL128, UL130, and UL131A, and fragments thereof. In some embodiments, the additional polypeptide is HCMV gH polypeptide. In some embodiments, the additional polypeptide is an HCMV gL polypeptide. In some embodiments, the additional polypeptide is an HCMV gB polypeptide. In some embodiments, the additional polypeptide is an HCMV gO polypeptide. In some embodiments, the additional polypeptide is an HCMV gN polypeptide. In some embodiments, the additional polypeptide is an HCMV gM polypeptide. In some embodiments, the additional polypeptide is a variant gH polypeptide, a variant gL polypeptide, or a variant gB polypeptide. In some embodiments, the variant HCMV gH, gL, or gB polypeptide is a truncated polypeptide lacking one or more of the following domain sequences: (1) the hydrophobic membrane proximal domain, (2) the transmembrane domain, and (3) the cytoplasmic domain. In some embodiments, the truncated HCMV gH, gL, or gB polypeptide lacks the hydrophobic membrane proximal domain, the transmembrane domain, and the cytoplasmic domain. In some embodiments, the truncated HCMV gH, gL, or gB polypeptide includes only the ectodomain sequence. In some embodiments, an antigenic polypeptide is an HCMV protein selected from UL83, UL123, UL128, UL130 and UL131A or an immunogenic fragment or epitope thereof. In some embodiments, the antigenic polypeptide is an HCMV UL83 polypeptide. In some embodiments, the antigenic polypeptide is an HCMV UL123 polypeptide. In some embodiments, the antigenic polypeptide is an HCMV UL128 polypeptide. In some embodiments, the antigenic polypeptide is an HCMV UL130 polypeptide. In some embodiments, the antigenic polypeptide is an HCMV UL131 polypeptide.

In another aspect, the invention relates to a composition that includes (a) a polynucleotide encoding a polypeptide including at least two introduced amino acid mutations relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB); and (b) a polynucleotide encoding an additional polypeptide having any one of the amino acid sequences set forth in SEQ ID NOs: 211-223. In another aspect, the invention relates to a composition that includes (a) a polynucleotide encoding a polypeptide including at least two introduced amino acid mutations relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB); and (b) a polynucleotide having any one of the sequences selected from SEQ ID NOs: 141-210. In another aspect, the invention relates to a composition that includes (a) a polynucleotide encoding a polypeptide including at least two introduced amino acid mutations relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB); and (b) an additional polypeptide having any one of the amino acid

sequences selected from SEQ ID NOs: 211-223. In some embodiments, the polynucleotide encoding the additional polypeptide includes at least one nucleic acid sequence selected from any of SEQ ID NOs: 225-254. In some embodiments, the polynucleotide encoding the additional polypeptide includes at least one nucleic acid sequence selected from any of SEQ ID NOs: 141-147. In some embodiments, the polynucleotide encoding the additional polypeptide has at least one sequence selected from any of SEQ ID NOs: 220-223.

In some embodiments, the antigenic polypeptide includes two or more HCMV proteins, fragments, or epitopes thereof. In some embodiments, the antigenic polypeptide includes two or more glycoproteins, fragments, or epitopes thereof. In some embodiments, the antigenic polypeptide includes at least one HCMV polypeptide, fragment or epitope thereof and at least one other HCMV protein, fragment or epitope thereof. In some embodiments, the two or more HCMV polypeptides are encoded by a single RNA polynucleotide. In some embodiments, the two or more HCMV polypeptides are encoded by two or more RNA polynucleotides, for example, each HCMV polypeptide is encoded by a separate RNA polynucleotide. In some embodiments, the two or more HCMV polypeptides can be any combination of HCMV gH, gL, gB, gO, gN, and gM polypeptides or immunogenic fragments or epitopes thereof. In some embodiments, the two or more glycoproteins includes pp65 or immunogenic fragments or epitopes thereof; and any combination of HCMV gH, gL, gB, gO, gN, and gM polypeptides or immunogenic fragments or epitopes thereof. In some embodiments, the two or more glycoproteins can be any combination of HCMV gB and one or more HCMV polypeptides selected from gH, gL, gO, gN, and gM polypeptides or immunogenic fragments or epitopes thereof. In some embodiments, the two or more glycoproteins can be any combination of HCMV gH and one or more HCMV polypeptides selected from gL, gO, gN, and gM polypeptides or immunogenic fragments or epitopes thereof. In some embodiments, the two or more glycoproteins can be any combination of HCMV gL and one or more HCMV polypeptides selected from gB, gH, gO, gN, and gM polypeptides or immunogenic fragments or epitopes thereof. In some embodiments, the two or more HCMV polypeptides are gB and gH. In some embodiments, the two or more HCMV polypeptides are gB and gL. In some embodiments, the two or more HCMV polypeptides are gH and gL. In some embodiments, the two or more HCMV polypeptides are gB, gL, and gH. In some embodiments, the two or more HCMV proteins can be any combination of HCMV UL83, UL123, UL128, UL130, and UL131A polypeptides or immunogenic fragments or epitopes thereof. In some embodiments, the two or more HCMV polypeptides are UL123 and UL130. In some embodiments, the two or more HCMV polypeptides are UL123 and 131 A. In some embodiments, the two or more HCMV polypeptides are UL130 and 131 A. In some embodiments, the two or more HCMV polypeptides are UL 128, UL130 and 131 A. In some embodiments, the two or more HCMV proteins can be any combination of HCMV gB,

gH, gL, gO, gM, gN, UL83, UL123, UL128, UL130, and UL131A polypeptides or immunogenic fragments or epitopes thereof. In some embodiments, the two or more glycoproteins can be any combination of HCMV gH and one or more HCMV polypeptides selected from gL, UL128, UL130, and UL131A polypeptides or immunogenic fragments or epitopes thereof. In some embodiments, the two or more glycoproteins can be any combination of HCMV gL and one or more HCMV polypeptides selected from gH, UL128, UL130, and UL131A polypeptides or immunogenic fragments or epitopes thereof. In some embodiments, the two or more HCMV polypeptides are gL, gH, UL 128, UL130 and 131 A. In any of these embodiments in which the composition includes two or more HCMV proteins, the HCMV gH may be a variant gH, such as any of the variant HCMV gH glycoproteins disclosed herein, for example, any of the variant HCMV gH disclosed herein. In any of these embodiments in which the composition includes two or more HCMV proteins, the HCMV gB may be a variant gB, such as any of the variant HCMV gB glycoproteins disclosed herein, for example, any of the variant HCMV gB disclosed herein. In any of these embodiments in which the composition includes two or more HCMV gL proteins, the HCMV gL may be a variant gL, such as any of the variant HCMV gL glycoproteins disclosed herein, for example, any of the variant HCMV gL disclosed herein.

In certain embodiments in which the compostion includes two or more RNA polynucleotides encoding two or more HCMV antigenic polypeptides or an immunogenic fragment or epitope thereof (either encoded by a single RNA polynucleotide or encoded by two or more RNA polynucleotides, for example, each protein encoded by a separate RNA polynucleotide), the two or more HCMV proteins are a variant gB, for example, any of the variant gB polypeptides disclosed herein, and an HCMV protein selected from gH, gL, gO, gM, gN, UL128, UL130, and UL131 polypeptides or immunogenic fragments or epitopes thereof. In some embodiments, the two or more HCMV proteins are a variant gH, for example, any of the variant gH polypeptides disclosed herein, and an HCMV protein selected from gH, gL, gO, gM, gN, UL128, UL130, and UL131A polypeptides or immunogenic fragments or epitopes thereof. In some embodiments, the two or more HCMV proteins are a variant gH, for example, any of the variant gH polypeptides disclosed herein, and an HCMV protein selected from gH, gL, gO, gM, gN, UL128, UL130, and UL131 polypeptides or immunogenic fragments or epitopes thereof. In some embodiments in which the variant HCMV proteins are variant HCMV gB, variant HCMV gL, and variant HCMV gH, the variant HCMV polypeptide is a truncated polypeptide selected from the following truncated polypeptides: lacks the hydrophobic membrane proximal domain; lacks the transmembrane domain; lacks the cytoplasmic domain; lacks two or more of the hydrophobic membrane proximal, transmembrane, and cytoplasmic domains; and includes only the ectodomain. In some embodiments, the composition includes multimeric RNA

polynucleotides encoding at least one HCMV antigenic polypeptide or an immunogenic fragment or epitope thereof. In some embodiments, the composition includes at least one RNA polynucleotide encoding at least one HCMV antigenic polypeptide or an immunogenic fragment or epitope thereof, wherein the 5'UTR of the RNA polynucleotide includes a patterned UTR. In some embodiments, the patterned UTR has a repeating or alternating pattern, such as ABABAB or AABBAABBAABB or ABCABCABC or variants thereof repeated once, twice, or more than 3 times. In these patterns, each letter, A, B, or C represent a different UTR at the nucleotide level. In some embodiments, the 5' UTR of the RNA polynucleotide (e.g., a first nucleic acid) has regions of complementarity with a UTR of another RNA polynucleotide (a second nucleic acid). For example, UTR nucleotide sequences of two polynucleotides sought to be joined (e.g., in a multimeric molecule) can be modified to include a region of complementarity such that the two UTRs hybridize to form a multimeric molecule. In some embodiments, the 5' UTR of an RNA polynucleotide encoding an HCMV antigenic polypeptide is modified to allow the formation of a multimeric sequence. In some embodiments, the 5’ UTR of an RNA polynucleotide encoding an HCMV protein selected from UL128, UL130, UL131 is modified to allow the formation of a multimeric sequence. In some embodiments, the 5’ UTR of an RNA polynucleotide encoding an HCMV polypeptide is modified to allow the formation of a multimeric sequence. In some embodiments, the 5’ UTR of an RNA polynucleotide encoding an HCMV polypeptide selected from gH, gL, gB, gO, gM, and gN is modified to allow the formation of a multimeric sequence. In any of these embodiments, the multimer may be a dimer, a trimer, pentamer, hexamer, heptamer, octamer nonamer, or decamer. Thus, in some embodiments, the 5' UTR of an RNA polynucleotide encoding an HCMV protein selected from gH, gL, gB, gO, gM, gN, UL128, UL130, and UL131 is modified to allow the formation of a dimer. In some embodiments, the 5’ UTR of an RNA polynucleotide encoding an HCMV protein selected from gH, gL, gB, gO, gM, gN, UL128, UL130, and UL131A is modified to allow the formation of a trimer. In some embodiments, the 5’ UTR of an RNA polynucleotide encoding an HCMV protein selected from gH, gL, gB, gO, gM, gN, UL128, UL130, and UL131 is modified to allow the formation of a pentamer. In some embodiments, the composition includes at least one RNA polynucleotide having a single open reading frame encoding two or more (for example, two, three, four, five, or more) HCMV antigenic polypeptides or an immunogenic fragment or epitope thereof. In some embodiments, the composition includes at least one RNA polynucleotide having more than one open reading frame, for example, two, three, four, five or more open reading frames encoding two, three, four, five or more HCMV antigenic polypeptides. In either of these embodiments, the at least one RNA polynucleotide may encode two or more HCMV antigenic polypeptides selected from gH, gB, gL, gO, gM, gN, UL83, UL123, UL128, UL130, UL131A, and fragments or epitopes thereof. In some

embodiments, the at least one RNA polynucleotide encodes UL83 and UL123. In some embodiments, the at least one RNA polynucleotide encodes gH and gL. In some embodiments, the at least one RNA polynucleotide encodes UL128, UL130, and UL131. In some embodiments, the at least one RNA polynucleotide encodes gH, gL, UL128, UL130, and UL131. In some embodiments, in which the at least one RNA polynucleotide has a single open reading frame encoding two or more (for example, two, three, four, five, or more) HCMV antigenic polypeptides, the RNA polynucleotide further comprises additional sequence, for example, a linker sequence or a sequence that aids in the processing of the HCMV RNA transcripts or polypeptides, for example a cleavage site sequence. In some embodiments, the additional sequence may be a protease sequence, such as a furin sequence. In some embodiments, the additional sequence may be self-cleaving 2A peptide, such as a P2A, E2A, F2A, and T2A sequence. In some embodiments, the linker sequences and cleavage site sequences are interspersed between the sequences encoding HCMV polypeptides.

In some embodiments, at least one RNA polynucleotide includes any nucleic acid sequence selected from any one of nucleic acid sequences disclosed herein, or homologs thereof having at least 80% (e.g., 85%, 90%, 95%, 98%, 99%) identity with a nucleic acid sequence disclosed herein. In some embodiments, the open reading frame is encoded is codon-optimized. Some embodiments include a composition that includes at least one RNA polynucleotide encoding at least one HCMV antigenic polypeptide or an immunogenic fragment thereof and at least one 5' terminal cap. In some embodiments, a 5' terminal cap is 7mG(5')ppp(5')NlmpNp.

In some embodiments, the at least one polynucleotide includes a nucleic acid sequence selected from any one of SEQ ID NOs: 141-210. In some embodiments, the at least one polynucleotide encodes a polypeptide having at least 90% identity to any one of the amino acid sequences of SEQ ID NOs: 211-223. In some preferred embodiments, the composition does not include a polypeptide having the amino acid sequence SEQ ID NO: 216. In some preferred embodiments, the composition does not include a polynucleotide encoding the amino acid sequence SEQ ID NO: 216. In some preferred embodiments, the composition does not include a polynucleotide having the sequence SEQ ID NO: 152.

In some embodiments, the composition includes at least one polynucleotide, wherein the at least one polynucleotide has at least one chemical modification. In some embodiments, the at least one polynucleotide further includes a second chemical modification. Preferably, the polynucleotide is RAN. In some embodiments, the at least one polynucleotide having at least one chemical modification has a 5' terminal cap. In some embodiments, the at least one chemical modification is selected from pseudouridine, N1-methylpseudouridine, N1-ethylpseudouridine, N1-ethylpseudouridine, 2-thiouridine, 4'-

thiouridine, 5-methylcytosine, 2-thio-l -methyl- 1-deaza-pseudouri dine, 2-thio-l-methyl-pseudouridine, 2-thio-5-aza-uridine , 2-thio-dihydropseudouridine, 2-thio-dihydrouridine, 2-thio-pseudouridine, 4-methoxy-2-thio-pseudouridine, 4-methoxy-pseudouridine, 4-thio-l-methyl-pseudouridine, 4-thio-pseudouridine, 5-aza-uridine, dihydropseudouridine, 5-methoxyuridine and 2'-0-methyl uridine. In some embodiments, the composition includes at least one polynucleotide, wherein at least 80% (e.g., 85%, 90%, 95%, 98%, 99%, 100%) of the uracil in the open reading frame has a chemical modification, optionally wherein the composition is formulated in a lipid nanoparticle. In some embodiments, 100% of the uracil in the open reading frame has a chemical modification. In some embodiments, a chemical modification is in the 5-position of the uracil. In some embodiments, a chemical modification is a N1-methyl pseudouridine.

In some embodiments, the additional polypeptides or immunogenic fragments encoded by the polynucleotide (e.g., in an mRNA composition) are selected from gB, gH, gL, gO, gM, gN, UL83, UL123, UL128, UL130, UL131A, pp65 and IE1 antigens.

In some embodiments, a first composition and a second composition are administered to the mammal. In some embodiments, a first composition includes a polynucleotide encoding a polypeptide including at least one introduced amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB; and a second composition includes a polynucleotide encoding HCMV pp65 or an antigenic fragment or epitope thereof. In some embodiments, a first composition includes a polynucleotide encoding a polypeptide including at least one introduced amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB; and a second composition includes a polynucleotide encoding at least one polynucleotide encoding an additional polypeptide selected from HCMV gH, gL, UL128, UL130, and UL131, or antigenic fragments or epitopes thereof.

In another aspect, the invention relates to methods of inducing an immune response in a mammal, including administering to the mammal a composition in an amount effective to induce an immune response, wherein the composition includes a polynucleotide encoding a polypeptide including at least two introduced amino acid mutations relative to the amino acid sequence of the wild-type HCMV gB.

In some embodiments, the immune response includes a T cell response or a B cell response. In some embodiments, the immune response includes a T cell response and a B cell response. In some embodiments, the method involves a single administration of the composition. In some embodiments, a method further includes administering to the subject a booster dose of the composition. The composition including a polynucleotide disclosed herein may be formulated in an effective amount to produce an antigen specific immune response in a mammal.

The immunogenic composition may include an adjuvant. Exemplary adjuvants to enhance effectiveness of the composition include: (1) aluminum salts (alum), such as aluminum hydroxide, aluminum phosphate, aluminum sulfate, etc.; (2) oil-in-water emulsion formulations (with or without other specific adjuvants such as muramyl peptides (see below) or bacterial cell wall components), such as for example (a) MF59 (PCT Publ. No. WO 90/14837), containing 5% Squalene, 0.5% TWEEN 80, and 0.5% Span 85 formulated into submicron particles using a microfluidizer, (b) SAF, containing 10% Squalane, 0.4% Tween 80, 5% pluronic-blocked polymer L121, and thr-MDP either microfluidized into a submicron emulsion or vortexed to generate a larger particle size emulsion, and (c) RIBI™ adjuvant system (RAS), (Ribi Immunochem, Hamilton, Mont.) containing 2% Squalene, 0.2% Tween 80, and one or more bacterial cell wall components from the group consisting of monophosphorylipid A (MPL), trehalose dimycolate (TDM), and cell wall skeleton (CWS), preferably MPL+CWS (DETOX™); (3) saponin adjuvants, such as QS-21, STIMULON™ (Cambridge Bioscience, Worcester, Mass.), which may be used or particles generated therefrom such as ISCOMs (immunostimulating complexes); (4) Complete Freunds Adjuvant (CFA) and Incomplete Freunds Adjuvant (IFA); (5) cytokines, such as interleukins (IL-1 , IL-2, etc.), macrophage colony stimulating factor (M-CSF), tumor necrosis factor (TNF), etc.; and (6) other substances that act as adjuvants to enhance the effectiveness of the composition. In a preferred embodiment, the adjuvant is a saponin adjuvant, namely QS-21. In some embodiments, the composition does not include an adjuvant. In some embodiments, the composition further includes a lipid nanoparticle. In some embodiments, the composition is formulated in a nanoparticle. In some embodiments, the composition further includes a cationic or polycationic compounds, including protamine or other cationic peptides or proteins, such as poly-L-lysine (PLL).

Each of the immunogenic compositions discussed herein may be used alone or in combination with one or more other antigens, the latter either from the same viral pathogen or from another pathogenic source or sources. These compositions may be used for prophylactic (to prevent infection) or therapeutic (to treat disease after infection) purposes.

In one embodiment, the composition may include a "pharmaceutically acceptable carrier," which includes any carrier that does not itself induce the production of antibodies harmful to the individual receiving the composition. Suitable carriers are typically large, slowly metabolized macromolecules such as proteins, polysaccharides, polylactic acids, polyglycolic acids, polymeric amino acids, amino acid copolymers, lipid aggregates (such as oil droplets or liposomes), and inactive virus particles. Such carriers are well known to those of ordinary skill in the art. Additionally, these carriers may function as adjuvants. Furthermore, the antigen may be conjugated to a bacterial toxoid, such as a toxoid from diphtheria, tetanus, cholera, *H. pylori*, and etc. pathogens.

In one embodiment, the composition includes a diluent, such as water, saline, glycerol, ethanol, etc. Additionally, auxiliary substances, such as wetting or emulsifying agents, pH buffering substances, and the like, may be present in such vehicles.

The compositions described herein may include an immunologically effective amount of the polypeptide or polynucleotide, as well as any other of the above-mentioned components, as needed. By "immunologically effective amount," it is meant that the administration of that amount to an individual, either in a single dose or as part of a series, is effective for eliciting an immune response. The immune response elicited may be sufficient, for example, for treatment and/or prevention and/or reduction in incidence of illness, infection or disease. This amount varies depending upon the health and physical condition of the individual to be treated, the taxonomic group of individual to be treated (e.g., nonhuman primate, primate, etc.), the capacity of the individual's immune system to synthesize antibodies, the degree of protection desired, the formulation of the vaccine, the treating doctor's assessment of the medical situation, and other relevant factors. It is expected that the amount will fall in a relatively broad range that can be determined through routine trials.

The composition may be administered parenterally, e.g., by injection, either subcutaneously or intramuscularly. In some embodiments, the composition is administered to the mammal by intradermal or intramuscular injection. Additional formulations suitable for other modes of administration include oral and pulmonary formulations, nasal formulations, suppositories, and transdermal applications. Oral formulations may be preferred for certain viral proteins. Dosage treatment may be a single dose schedule or a multiple dose schedule. The immunogenic composition may be administered in conjunction with other immunoregulatory agents.

In another aspect, the invention provides a method of eliciting an immune response against cytomegalovirus, comprising administering to a subject in need thereof an immunologically effective amount of the polypeptide and/or an immunogenic composition described herein, which comprises the proteins, DNA molecules, RNA molecules (e.g., self-replicating RNA molecules), or VRPs as described above. In certain embodiments, the immune response comprises the production of neutralizing antibodies against CMV.

The immune response can comprise a humoral immune response, a cell-mediated immune response, or both. In some embodiments an immune response is induced against each delivered CMV protein. A cell-mediated immune response can comprise a Helper T-cell (Th) response, a CD8+ cytotoxic T-cell (CTL) response, or both. In some embodiments the immune response comprises a humoral immune response, and the antibodies are neutralizing antibodies.

Neutralizing antibodies block viral infection of cells. CMV infects epithelial cells and also fibroblast cells. In some embodiments the immune response reduces or prevents

infection of both cell types. Neutralizing antibody responses can be complement-dependent or complement- independent. In some embodiments the neutralizing antibody response is complement- independent. In some embodiments the neutralizing antibody response is cross-neutralizing; i.e., an antibody generated against an administered composition neutralizes a CMV virus of a strain other than the strain used in the composition.

The polypeptide and/or immunogenic composition described herein may also elicit an effective immune response to reduce the likelihood of a CMV infection of a non-infected mammal, or to reduce symptoms in an infected mammal, e.g., reduce the number of outbreaks, CMV shedding, and risk of spreading the virus to other mammals.

In one aspect, the invention relates to a method for reducing CMV viral shedding in a mammal. In some embodiments, the invention relates to a method for reducing CMV viral shedding in urine in a mammal. In some embodiments, the invention relates to a method for reducing CMV viral shedding in saliva in a mammal. In another aspect, the invention relates to a method for reducing CMV viral titers in a mammal. In one aspect, the invention relates to a method for reducing CMV nucleic acids in serum in a mammal. The term "viral shedding" is used herein according to its plain ordinary meaning in medicine and virology and refers to the production and release of virus from an infected cell. In some embodiments, the virus is released from a cell of a mammal. In some embodiments, virus is released into the environment from an infected mammal. In some embodiments the virus is released from a cell within a mammal.

In one aspect, the invention relates to a method for reducing CMV viral shedding in a mammal. The method includes administering the modified CMV gB polypeptide and/or immunogenic composition described herein to the mammal that is infected with or is at risk of a CMV infection. In one embodiment, the reduction in CMV viral shedding in a mammal is as compared to the viral shedding in mammals that were not administered the modified CMV gB. In another embodiment, the reduction in CMV viral shedding in a mammal is as compared to the viral shedding following an administration of a CMV pentamer alone or following an administration of a CMV pentamer in the absence of the polypeptide.

In some embodiments, the mammal is a human. In some embodiments, the human is a child, such as an infant. In some other embodiments, the human is female, including an adolescent female, a female of childbearing age, a female who is planning pregnancy, a pregnant female, and females who recently gave birth. In some embodiments, the human is a transplant patient.

In one embodiment, the challenge cytomegalovirus strain is a human CMV strain. In one embodiment, the challenge cytomegalovirus strain is homologous to the CMV strain from which the polypeptide is derived. In another embodiment, the challenge

cytomegalovirus strain is homologous to the CMV strain VR1814. In another embodiment, the challenge cytomegalovirus strain is homologous to the CMV strain Towne.

In one embodiment, the challenge cytomegalovirus strain is a human CMV strain that is heterologous to the CMV strain from which the modified CMV gB polypeptide is derived. In another embodiment, the challenge cytomegalovirus strain is a human CMV strain that is heterologous to the VR1814 CMV strain. In another embodiment, the challenge cytomegalovirus strain is the VR1814 CMV strain. In another embodiment, the challenge cytomegalovirus strain is a human CMV strain that is heterologous to the CMV strain Towne. In another embodiment, the challenge cytomegalovirus strain is the CMV strain Towne.

In another embodiment, the challenge cytomegalovirus strain is a rhesus CMV strain homologous to the macacine herpesvirus 3 isolate 21252 CMV strain. In another embodiment, the challenge cytomegalovirus strain is the macacine herpesvirus 3 isolate 21252 CMV strain.

A useful measure of antibody potency in the art is "50% neutralization titer." Another useful measure of antibody potency is any one of the following: a "60% neutralization titer"; a "70% neutralization titer"; a "80% neutralization titer"; and a "90% neutralization titer." To determine, for example, a 50% neutralizing titer, serum from immunized animals is diluted to assess how dilute serum can be yet retain the ability to block entry of 50% of infectious viruses into cells. For example, a titer of 700 means that serum retained the ability to neutralize 50% of infectious virus after being diluted 700-fold. Thus, higher titers indicate more potent neutralizing antibody responses. In some embodiments, this titer is in a range having a lower limit of about 200, about 400, about 600, about 800, about 1000, about 1500, about 2000, about 2500, about 3000, about 3500, about 4000, about 4500, about 5000, about 5500, about 6000, about 6500, or about 7000. The 50%, 60%, 70%, 80%, or 90% neutralization titer range can have an upper limit of about 400, about 600, about 800, about 1000, about 1500, about 2000, about 2500, about 3000, about 3500, about 4000, about 4500, about 5000, about 5500, about 6000, about 6500, about 7000, about 8000, about 9000, about 10000, about 1 1000, about 12000, about 13000, about 14000, about 15000, about 16000, about 17000, about 18000, about 19000, about 20000, about 21000, about 22000, about 23000, about 24000, about 25000, about 26000, about 27000, about 28000, about 29000, or about 30000. For example, the 50% neutralization titer can be about 3000 to about 6500. "About" means plus or minus 10% of the recited value. Neutralization titer can be measured as described in the specific examples, below.

An immune response can be stimulated by administering proteins, DNA molecules, RNA molecules (e.g., self-replicating RNA molecules or nucleoside modified RNA molecules), or VRPs to an individual, typically a mammal, including a human. In some embodiments the immune response induced is a protective immune response, i.e., the

response reduces the risk or severity of or clinical consequences of a CMV infection. Stimulating a protective immune response is particularly desirable in some populations particularly at risk from CMV infection and disease. For example, at-risk populations include solid organ transplant (SOT) patients, bone marrow transplant patients, and hematopoietic stem cell transplant (HSCT) patients. VRPs can be administered to a transplant donor pre-transplant, or a transplant recipient pre- and/or post-transplant. Because vertical transmission from mother to child is a common source of infecting infants, administering VRPs to a woman who is pregnant or can become pregnant is particularly useful.

Administration of the compositions provided by the present disclosure, such as pharmaceutical compositions, can be carried out using standard routes of administration. Any suitable route of administration can be used. For example, a composition can be administered intramuscularly, intraperitoneally, subcutaneously, or transdermally. Some embodiments will be administered through an intra-mucosal route such as intra-orally, intra-nasally, intra-vaginally, and intra-rectally. Compositions can be administered according to any suitable schedule.

Also provided herein is a method of inhibiting cytomegalovirus entry into a cell, comprising contacting the cell with the immunogenic composition described herein.

In one aspect, the invention relates to compositions that include a polypeptide described above. In another aspect, the invention relates to compositions that include a nucleic acid molecule or vector encoding such polypeptide. In a further aspect, the invention relates to compositions that include a polypeptide described above and a nucleic acid molecule or vector encoding such polypeptide.

In some embodiments, the composition is an immunogenic composition capable of eliciting an immune response against CMV in a subject. In some particular embodiments, the immunogenic composition is a pharmaceutical composition, which includes a polypeptide provided by the present disclosure and a pharmaceutically acceptable carrier. In still other embodiments, the pharmaceutical composition is a vaccine.

In some embodiments, a composition, such as an immunogenic composition or a vaccine, includes two or more different polypeptides described above. The two or more different polypeptides may include the same introduced amino acid mutations but may be derived from gB from different HCMV strains or subtypes. In another embodiment, the two or more different polypeptides may include amino acid mutations, as compared to a native HCMV gB, that differ from one another.

In preferred embodiments, the polypeptide is soluble in aqueous solution. In some embodiments, the polypeptide is soluble in a solution that lacks detergent.

Antibodies and Diagnostic Uses

The polypeptides described above may be used to produce antibodies, both polyclonal and monoclonal. If polyclonal antibodies are desired, a selected mammal (e.g., mouse, rabbit, goat, guinea pig, horse, etc.) is immunized with an immunogenic polypeptide bearing a CMV epitope(s). Serum from the immunized animal is collected and treated according to known procedures. If serum containing polyclonal antibodies to a CMV epitope contains antibodies to other antigens, the polyclonal antibodies can be purified by immunoaffinity chromatography. Techniques for producing and processing polyclonal antisera are known in the art.

Monoclonal antibodies directed against CMV epitopes can also be readily produced by one skilled in the art. The general methodology for making monoclonal antibodies by hybridomas is known. Immortal antibody-producing cell lines can be created by cell fusion, and also by other techniques such as direct transformation of B lymphocytes with oncogenic DNA, or transfection with Epstein-Barr virus. Panels of monoclonal antibodies produced against CMV epitopes can be screened for various properties; i.e., for isotype, epitope affinity, etc.

Antibodies, both monoclonal and polyclonal, which are directed against CMV epitopes are particularly useful in diagnosis, and those which are neutralizing are useful in passive immunotherapy. Monoclonal antibodies, in particular, may be used to raise anti-idiotype antibodies.

Both the polypeptides which react immunologically with serum containing CMV antibodies, and the antibodies raised against these polypeptides, may be useful in immunoassays to detect the presence of CMV antibodies, or the presence of the virus, in biological samples, including for example, blood or serum samples. Design of the immunoassays is subject to a great deal of variation, and a variety of these are known in the art. For example, the immunoassay may utilize the polypeptide having the sequence set forth in any one of SEQ ID NOs: 2-106.

Alternatively, the immunoassay may use a combination of viral antigens derived from the polypeptides described herein. It may use, for example, a monoclonal antibody directed towards at least one polypeptide described herein, a combination of monoclonal antibodies directed towards the polypeptides described herein, monoclonal antibodies directed towards different viral antigens, polyclonal antibodies directed towards the polypeptides described herein, or polyclonal antibodies directed towards different viral antigens. Protocols may be based, for example, upon competition, or direct reaction, or may be sandwich type assays. Protocols may also, for example, use solid supports, or may be by immunoprecipitation. Most assays involve the use of labeled antibody or polypeptide; the labels may be, for example, fluorescent, chemiluminescent, radioactive, or dye molecules. Assays which amplify the signals from the probe are also known; examples of which are assays which

utilize biotin and avidin, and enzyme-labeled and mediated immunoassays, such as ELISA assays.

Kits suitable for immunodiagnosis and containing the appropriate labeled reagents are constructed by packaging the appropriate materials, including the polypeptides of the invention containing CMV epitopes or antibodies directed against epitopes in suitable containers, along with the remaining reagents and materials required for the conduct of the assay, as well as a suitable set of assay instructions.

The polynucleotide probes can also be packaged into diagnostic kits. Diagnostic kits include the probe DNA, which may be labeled; alternatively, the probe DNA may be unlabeled and the ingredients for labeling may be included in the kit. The kit may also contain other suitably packaged reagents and materials needed for the particular hybridization protocol, for example, standards, as well as instructions for conducting the test.

Some embodiments of the present disclosure provide a HCMV vaccine that includes at least one ribonucleic acid (RNA) polynucleotide having an open reading frame encoding at least one HCMV antigenic polypeptide or an immunogenic fragment thereof and at least one 5′ terminal cap. In some embodiments, a 5′ terminal cap is 7mG(5′)ppp(5′)NlmpNp.

Some embodiments of the present disclosure provide a HCMV vaccine that includes at least one ribonucleic acid (RNA) polynucleotide having an open reading frame encoding at least one HCMV antigenic polypeptide or an immunogenic fragment thereof, wherein the at least one ribonucleic acid (RNA) polynucleotide has at least one chemical modification. In some embodiments, the at least one ribonucleic acid (RNA) polynucleotide further comprises a second chemical modification. In some embodiments, the at least one ribonucleic acid (RNA) polynucleotide having at least one chemical modification has a 5′ terminal cap. In some embodiments, the at least one chemical modification is selected from pseudouridine, N1-methylpseudouridine, N1-ethylpseudouridine, N1-ethylpseudouridine, 2-thiouridine, 4′-thiouridine, 5-methylcytosine, 2-thio-1-methyl-1-deaza-pseudouridine, 2-thio-1-methyl-pseudouridine, 2-thio-5-aza-uridine, 2-thio-dihydropseudouridine, 2-thio-dihydrouridine, 2-thio-pseudouridine, 4-methoxy-2-thio-pseudouridine, 4-methoxy-pseudouridine, 4-thio-1-methyl-pseudouridine, 4-thio-pseudouridine, 5-aza-uridine, dihydropseudouridine, 5-methoxyuridine and 2′-O-methyl uridine.

In some embodiments, the chemical modification is selected from the group consisting of pseudouridine, N1-methylpseudouridine, N1-ethylpseudouridine, 2-thiouridine, 4′-thiouridine, 5-methylcytosine, 2-thio-1-methyl-1-deaza-pseudouridine, 2-thio-1-methyl-pseudouridine, 2-thio-5-aza-uridine, 2-thio-dihydropseudouridine, 2-thio-dihydrouridine, 2-thio-pseudouridine, 4-methoxy-2-thio-pseudouridine, 4-methoxy-pseudouridine, 4-thio-1-methyl-pseudouridine, 4-thio-pseudouridine, 5-aza-uridine, dihydropseudouridine, 5-methoxyuridine, and 2′-O-methyl uridine.

Some embodiments of the present disclosure provide a HCMV vaccine that includes at least one ribonucleic acid (RNA) polynucleotide having an open reading frame encoding at least one HCMV antigenic polypeptide or an immunogenic fragment thereof, wherein at least 80% (e.g., 85%, 90%, 95%, 98%, 99%, 100%) of the uracil in the open reading frame have a chemical modification, optionally wherein the vaccine is formulated in a lipid nanoparticle. In some embodiments, 100% of the uracil in the open reading frame have a chemical modification. In some embodiments, a chemical modification is in the 5-position of the uracil. In some embodiments, a chemical modification is a N1-methyl pseudouridine.

Some embodiments of the present disclosure provide a HCMV vaccine that is formulated within a cationic lipid nanoparticle, also referred to herein as ionizable cationic lipid nanoparticles, ionizable lipid nanoparticles and lipid nanoparticles, which are used interchangeably. In some embodiments, the lipid nanoparticle comprises a cationic lipid, a PEG-modified lipid, a sterol and a non-cationic lipid. In some embodiments, the cationic lipid is an ionizable cationic lipid and the non-cationic lipid is a neutral lipid, and the sterol is a cholesterol. In some embodiments, the cationic lipid is selected from the group consisting of 2,2-dilinoleyl-4-dimethylaminoethyl-[1,3]-dioxolane (DLin-KC2-DMA), dilinoleyl-methyl-4-dimethylaminobutyrate (DLin-MC3-DMA), and di((Z)-non-2-en-1-yl) 9-((4-(dimethylamino)butanoyl)oxy)heptadecanedioate (L319). In some embodiments, the lipid nanoparticle has a molar ratio of about 20-60% cationic lipid, about 5-25% non-cationic lipid, about 25-55% sterol, and about 0.5-15% PEG-modified lipid. In some embodiments, the nanoparticle has a polydiversity value of less than 0.4. In some embodiments, the nanoparticle has a net neutral charge at a neutral pH. In some embodiments, the nanoparticle has a mean diameter of 50-200 nm.

In some embodiments, 80% of the uracil in the open reading frame have a chemical modification. In some embodiments, 100% of the uracil in the open reading frame have a chemical modification. In some embodiments, the chemical modification is in the 5-position of the uracil. In some embodiments, the chemical modification is N1-methylpseudouridine, N1-ethylpseudouridine. In some embodiments, the vaccine is formulated within a lipid nanoparticle. In some embodiments, the lipid nanoparticle comprises a cationic lipid, a PEG-modified lipid, a sterol and a non-cationic lipid. In some embodiments, the cationic lipid is an ionizable cationic lipid and the non-cationic lipid is a neutral lipid, and the sterol is a cholesterol. In some embodiments, the cationic lipid is selected from the group consisting of 2,2-dilinoleyl-4-dimethylaminoethyl-[1,3]-dioxolane (DLin-KC2-DMA), dilinoleyl-methyl-4-dimethylaminobutyrate (DLin-MC3-DMA), and di((Z)-non-2-en-1-yl) 9-((4-(dimethylamino)butanoyl)oxy)heptadecanedioate (L319).

Some embodiments of the present disclosure provide methods of inducing an antigen specific immune response in a subject, comprising administering to the subject a

HCMV RNA vaccine in an amount effective to produce an antigen specific immune response. In some embodiments, an antigen specific immune response comprises a T cell response or a B cell response. In some embodiments, an antigen specific immune response comprises a T cell response and a B cell response. In some embodiments, a method of producing an antigen specific immune response involves a single administration of the vaccine. In some embodiments, a method further includes administering to the subject a booster dose of the vaccine. In some embodiments, a vaccine is administered to the subject by intradermal or intramuscular injection.

Also provided herein are HCMV RNA vaccines for use in a method of inducing an antigen specific immune response in a subject, the method comprising administering the vaccine to the subject in an amount effective to produce an antigen specific immune response.

Further provided herein are uses of HCMV RNA vaccines in the manufacture of a medicament for use in a method of inducing an antigen specific immune response in a subject, the method comprising administering the vaccine to the subject in an amount effective to produce an antigen specific immune response.

Further provided herein are methods of preventing or treating HCMV infection comprising administering to a subject the vaccine of the present disclosure. The HCMV vaccine disclosed herein may be formulated in an effective amount to produce an antigen specific immune response in a subject.

The term “polypeptide variant” refers to molecules which differ in their amino acid sequence from a native or reference sequence. The amino acid sequence variants may possess substitutions, deletions, and/or insertions at certain positions within the amino acid sequence, as compared to a native or reference sequence. Ordinarily, variants possess at least 50% identity to a native or reference sequence. In some embodiments, variants share at least 80%, or at least 90% identity with a native or reference sequence.

In some embodiments “variant mimics” are provided. As used herein, the term “variant mimic” is one which contains at least one amino acid that would mimic an activated sequence. For example, glutamate may serve as a mimic for phosphoro-threonine and/or phosphoro-serine. Alternatively, variant mimics may result in deactivation or in an inactivated product containing the mimic, for example, phenylalanine may act as an inactivating substitution for tyrosine; or alanine may act as an inactivating substitution for serine.
“Orthologs” refers to genes in different species that evolved from a common ancestral gene by speciation. Normally, orthologs retain the same function in the course of evolution. Identification of orthologs is critical for reliable prediction of gene function in newly sequenced genomes. “Analogs” is meant to include polypeptide variants which differ by one or more amino acid alterations, for example, substitutions, additions or deletions of amino

acid residues that still maintain one or more of the properties of the parent or starting polypeptide.

The present disclosure provides several types of compositions that are polynucleotide or polypeptide based, including variants and derivatives. These include, for example, substitutional, insertional, deletion and covalent variants and derivatives. The term "derivative" is used synonymously with the term "variant" but generally refers to a molecule that has been modified and/or changed in any way relative to a reference molecule or starting molecule.

As such, polynucleotides encoding peptides or polypeptides containing substitutions, insertions and/or additions, deletions and covalent modifications with respect to reference sequences, in particular the polypeptide sequences disclosed herein, are included within the scope of this disclosure. For example, sequence tags or amino acids, such as one or more lysines, can be added to peptide sequences (e.g., at the N-terminal or C-terminal ends). Sequence tags can be used for peptide detection, purification or localization. Lysines can be used to increase peptide solubility or to allow for biotinylation. Alternatively, amino acid residues located at the carboxy and amino terminal regions of the amino acid sequence of a peptide or protein may optionally be deleted providing for truncated sequences. Certain amino acids (e.g., C-terminal or N-terminal residues) may alternatively be deleted depending on the use of the sequence, as for example, expression of the sequence as part of a larger sequence which is soluble, or linked to a solid support. "Substitutional variants" when referring to polypeptides are those that have at least one amino acid residue in a native or starting sequence removed and a different amino acid inserted in its place at the same position. Substitutions may be single, where only one amino acid in the molecule has been substituted, or they may be multiple, where two or more amino acids have been substituted in the same molecule.

In some embodiments, the mutant CMV gB polypeptide is a truncated polypeptide lacking one or more of the following domain sequences as compard to SEQ ID NO: 1: (1) Domain V (residues 124-344), (2) MPR domain (residues 705-750), (3) TM domain (residues 751-772) , or (3) the CT domain (residues 773-907). As used herein the term "truncated" shall mean that a sequence is missing some or all of the residues comprising a domain as set forth herein.

As described herein, CMV gB polypeptide comprises the following domains and residues (SEQ ID NO:1): (i) Domain I (residues 134-344), (ii) Domain II (residues 121-133 and 345-436), (iii) Domain III (residues 97-111, 475-539 and 640-648), (iv) Domain IV (residues 88-96, 540-639 and 551-641), (v) Domain V (residues 649-707), (vi) membrane-proximal region (MPR) (residues 705-750), (vii) transmembrane domain (TM) (residues 751-772), and (viii) cytoplasmic domain (CT) (residues 773-907). In another aspect, the

ectodomain of CMV gB comprises residues 1-707 or 23-707 (without signal sequence) of SEQ ID NO: 1. In another aspect, the ectodomain is lacking Domain V and comprises residues 1-646 or 23-646 (without signal sequence).

EXAMPLES

The invention is further described by the following illustrative examples. The examples do not limit the invention in any way. They merely serve to clarify the invention.

EXAMPLE 1: Isolation and Purification of Crosslinked and Native HCMV gB (Towne strain) with Fusion Inhibitor

During the sample preparation the HCMV fusion inhibitor (compound 28 described in Bloom et al., *Bioorganic & Medicinal Chemistry Letters* 14 (2004) 3401–3406; see also **FIG. 5D**) was added to each step during the virus concentration, processing, extraction and purification to inhibit conversion of gB to the postfusion form.

Following crosslinking of the proteins on the virion surface with bis(sulfosuccinimidyl) glutarate (BS^2G) and extraction of gB from the virion with detergent, the SM5-1 His/Strep-tagged Fab (Potzsch et al., *PLoS pathogens* 7(8):e1002172, 2011) was added to assist in purification and identification of gB by electron cryomicroscopy. The Fab-gB complexes were purified by an affinity column.

These extracted and purified proteins were then analyzed by electron cryomicroscopy for the presence of prefusion gB and used to solve the structure of a prefusion form.

EXAMPLE 2: Electron microscopy

Graphene oxide film-supported electron microscopy grids were prepared. The gB sample solutions were vitrified using a Vitrobot (ThermoFisher). The frozen grids were transferred to a FEI Titan Krios transmission electron microscope that operates at 300kV. Target positions were set up in the SerialEM program, and high magnification (18000X) images were automatically collected with the program using a K2 direct detector camera (Gatan) using super resolution movie mode. The unbinned pixel size was 0.638 Å and the beam intensity was ~8e/unbin pixel/s. The total electron dose on the sample for each movie was ~40e/Å^2. A total of 7,771 movies, each with 28 frames, was collected in three sessions.

Image processing

Drift correction was done using the MotionCor2 program (Zheng S et al. *Nature Methods* 14, 331–332 (2017)), and the final micrographs were binned 2X and averaged from

all frames. Contrast transfer function parameters were calculated with Gctf (Kai Zhang, *Journal of Structural Biology* 193(1), 1-12 (2016)). For particle picking, the published structure of HCMV gB in postfusion conformation (PDB:5CXF) was used to generate a 30Å density map using pdb2mrc (EMAN) (Ludtke, S. et al. *Journal of Structural Biology* 128(1), 82-97 (1999)). Projection images from this density maps was generated with project3d (EMAN) (**FIG. 1**) and used as a template for the automatic particle picking using Gautomatch program (Urnavicius L, et al. *Science* 347(6229):1441-1446 (2015)). Relion v2.1-beta (Scheres, S.H. *Journal of Structural Biology* 180(3): 519-530 (2012)) was used to extract the resulting ~1.9 million particles and to carry out all subsequent image processing steps, including 2D classification, 3D classification, auto-refinement and post-processing. The 2D classes were put into three groups based on the image features: the first group consisted of the 2D classes that showed features that resemble the crystallographically determined postfusion gB structure (>50%); the second group contained 2D classes with well resolved protein features that do not resemble the structural features from postfusion gB (<10%); the third group contained 2D classes that did not contain clearly defined protein (~40%) (**FIG. 1**). The first and second groups were further processed with 3D classification, auto refinement and post processing procedures with Relion. Following this processing, a ~3.5 Å resolution electron density map showing the postfusion conformation structure was reconstructed from the first group; a ~3.6 Å resolution electron density map showing a prefusion conformation structure was reconstructed from the second group. Based on these density maps and the known HCMV gB amino acid sequence (Towne strain P13201, SEQ ID NO:1), atomic models were built with the Coot program (Emsley P. et al *Acta Crystallogr D Biol Crystallogr* 66(Pt 4): 486-501 (2010)) for the prefusion and postfusion conformation structures. The postfusion gB crystal structure (PDB accession code 5CXF) and a crystal structure of a complex between the SM5-1 fab and gB domain II (PDB accession code 4OT1) were used as initial models for both structures. For the postfusion structure model, small adjustment was enough to obtain a good fit to the electron density. For the prefusion conformation model, domains I, II, III and IV from the reference PDB model could be docked as rigid bodies into the electron density map as a starting point. Then, adjustments of individual residues were made for optimal fitting. The model for domains V, MPR and TM were built *de novo*. The models were iteratively refined with the Phenix.real_space_refine tool (Afonine PV et al. *Acta Crystallogr D Struct Biol* 74(Pt 6): 531-544 (2018)) followed by local manual adjusting for several rounds.

Results

Sample screening by cryoEM

The prefusion conformation of gB is unstable, with a propensity to rearrange to the postfusion state, including during sample handling. Therefore, the samples studied contained a mixture of gB conformers, complicating structure determination. In addition, there was no pre-existing reliable information on the arrangement of domains or the unique structural features of prefusion gB. We used direct visualization by electron microscopy and image processing to screen different sample preparation conditions. Image sorting by 2D and 3D classification permits multiple structures to be determined from heterogeneous samples. However, it requires a large data set so that enough particles for each structure can be combined to produce a class average with good signal. This was especially the case for the gB samples because prefusion gB was a small population in the mixtures. Therefore, we collected ~1,000 movies for each condition, and decided whether to pursue image processing with more data from the same sample or switch to another at the 2D classification stage. The structure of antibody Fab-bound postfusion conformation gB was readily obtained from many datasets. The projection images from these Fab-bound postfusion conformation structures were used as a reference to avoid selecting images for the prefusion image reconstruction. We selected any good class average with protein features that did not resemble any of the postfusion gB projection images for further image processing. We screened dozens of conditions for sample preparation with this strategy and eventually found a sample that produced some alternative 2D classes as a minor species in the particle populations (**FIG. 1B**, circled). Then a total of 7,771 movies were collected from that sample and used for determination of a prefusion gB structure.
Projection images of the antibody Fab-bound postfusion gB structure are shown in **FIG. 1A**. The 2D class averages from the dataset collected are shown in **FIG. 1B**. Some classes that do not resemble any of the postfusion gB reference 2D projections are circled.

Obtaining a prefusion conformation structure

Approximately 1.9 million raw particle images were automatically selected from the data set. After 2D classification, the images were grouped into a postfusion class (55% of the particle population) and a prefusion class (10% of the particle population). The two groups were further processed in 3D with C3 symmetry applied to yield a density map of SM5-1 Fab-bound postfusion gB at 3.5 Å resolution and a density map of SM5-1 Fab-bound prefusion gB at 3.6 Å resolution.

The X-ray crystallography-based models of the SM5-1 Fab and of the ectodomain of postfusion gB were fit to the postfusion density map with rigid body docking. Except for the constant domain of the Fab (which is likely too flexible to produce strong electron density), the density map of the postfusion gB-Fab complex and the model agreed well with each other (**FIG. 3A**). The membrane proximal region, transmembrane region and cytoplasmic domain were not resolved in our final postfusion gB density map, suggesting that these

regions of postfusion gB are flexible either intrinsically or through detergent solubilization in the sample preparations (**FIG. 2**, lower line). The interaction of the Fab and DII of postfusion gB in the electron cryomicroscopy-based model agrees well with the previously determined crystal structure of the complex (PDB accession code 4OT1).

To build a prefusion gB model, guided by the known Fab binding position, domains I, II, III and part of domain IV from the postfusion gB crystal structure were docked into the density map of the prefusion gB-Fab complex individually and individual residues were manually adjusted as necessary for optimal fit of the electron density. The rest of the prefusion gB structure was built *de novo*. The amino acids of gB that were modeled in the prefusion structure are indicated in **FIG. 2**, the top line. The model of the prefusion gB-Fab complex fits most parts of the prefusion density map, and the presence of Fab density confirms the identity of gB in the novel structure (**FIG. 3B**).

The coordinates and structure factors for the model of the prefusion gB associated with the present Example are provided in **Table 1A**.

The structure of gB in a prefusion conformation and comparison to postfusion gB

The electron density for the complex of prefusion gB and the SM5-1 Fab allowed the building of a prefusion gB model that includes the gB ectodomain, membrane proximal region (MPR - a helical region that is oriented parallel to the viral membrane), and single span transmembrane helix (TM) (**FIG. 3B** and **FIG. 4B**). The MPR and TM regions were not resolved in the structural data for postfusion gB or included in postfusion gB models.

The overall dimensions of prefusion and postfusion gB are different (**FIG. 4A** vs. **FIG. 4B**). The postfusion gB trimer ectodomain has a rod shape, with an approximate height of 165 Å (the distance between planes formed by proline 570 of each protomer at the membrane distal end and tryptophan 240 of the each protomer at the membrane proximal end; **FIG. 4A**). It has a width of approximately 65Å (the distance between alanine 315 on adjacent protomers). The structures described here were derived from gB of HCMV strain Towne. Although there is some natural variations of gB amino acid sequence, the overall postfusion structure of Towne gB is almost identical to the postfusion structure of gB from the strain AD169 (PDB accession code 5CXF). Thus, the description of the postfusion gB structure applies to both strains with measurements from equivalent amino acids from sequence alignments.

The prefusion gB trimer has a more squat shape than the postfusion gB trimer (**FIG. 4A** vs. **FIG. 4B**). The distance between the plane formed by W240 of each protomer and the most membrane distal modeled residue in the prefusion structure, Q483, is roughly 115Å.

The prefusion model is 95Å in width (measured by the distance between any two A315 from different protomers).

The individual subunit structures of domains I, II, III and IV are similar in the prefusion and postfusion conformations. However, the overall arrangement of these domains is very different in the two conformations (**FIGs. 4A-4B** and **FIGs. 6A-6C**). In the prefusion conformation, the fusion loops at the tip of DI and the C-termini of the central helix bundle in domain III all point in the same direction, toward the virion envelope, as identified by the position of the TM region (**FIG. 4A**l and **FIG. 6A**). In contrast, in the postfusion conformation, the fusion loops and the C-termini of the central helix bundle point in opposite directions (**FIG. 4B** and **FIG. 6C**).

In the prefusion structure, the hydrophobic residues in the fusion loops (residues Y155, I156, H157 and W240, L241) are in close proximity to the MPR and are likely surrounded by detergents (**FIG. 4A**l and **FIG. 6A**).

In the transition from prefusion to post fusion, domain II shifts from a position mid-way up the domain III central coiled-coil to a position at the membrane proximate end of the coiled-coil and near end of domain I opposite the fusion loops (**FIG. 4A** and **FIG. 4B**).

The structure of DIII (**FIGs. 4A-4B** and **FIGs. 6A-6C**) is very similar in the prefusion and postfusion conformations. The central helix in both conformations spans from L479 to P525, indicating a minimal rearrangement during the prefusion to postfusion transition. However, the other domains change their positions relative to the central helix of domain III, so that, as noted above, the direction of the DIII helix bundle (from N-terminal to C-terminal) points away from the fusion loops towards the distal end of the trimer in the postfusion conformation and toward the viral membrane, in the same direction as the fusion loops in the prefusion conformation.

In the prefusion structure, domain IV (**FIG. 4A** and **FIG. 6A**) is buried at the interface between domain I on the exterior of the trimer and domains III and V at the center of the trimer. In contrast, in the postfusion structure, domain IV forms a highly exposed “crown” at the membrane-distal tip of the trimer.

Domain V has different structures in prefusion gB (**FIG. 4A** and **FIG. 6A**) and postfusion gB (**FIG. 4B** and **FIG. 6C**). In prefusion gB, the N-terminal half of the domain (about residues 642-660) is sandwiched between domain I and domain IV of an adjacent protomer and is sequestered from solvent. The region between residue 683-704 of domain V forms a trimeric helix bundle with its counterpart in other protomers. This helix bundle is cuddled mostly inside of the pocket of the “crown” formed by domain IV. There is an additional short helix (approximately residues 710-719) linking the helix bundle from domain V to the MPR region. In contrast, in the postfusion conformation (**FIG. 4B** and **FIG. 6C**),

domain V is solvent exposed and extends along the outside of domain III helix bundle and the groove formed by the interface between domain I from adjacent protomers.

Comparison of the prefusion and postfusion gB structures suggests a progression of conformational changes that is familiar from other well-studied fusion proteins (Harrison, S.C. *Virology* 0:498–507 (2015)). The comparison provides confidence that the structure described in this invention is, in fact, in a prefusion conformation. In the prefusion state (**FIG. 6A**), the fusion loops of domain I are buried by interaction with the MPR and potentially with the viral membrane. In the prefusion structure of the distant gB homolog, the vesicular stomatitis virus G glycoprotein, the fusion loops also point toward the viral membrane (also the anticipated position of an MPR region, which is not seen in that structure)(Roche et al. *Science* 315:843-8 (2007)).

Based on analogy to other fusion proteins, it is likely that rearrangement proceeds with lengthening of the central helix as part of a transition to a proposed extended intermediate between the prefusion and postfusion states (**FIG. 6B**). In the proposed extended intermediate state, the TM region would still be anchored in the viral membrane, and the fusion loops, now extended far from the viral membrane at the tips of a rotated and translocated domain I, would interact with a cellular membrane. The transition from the proposed extended intermediate to the postfusion conformation would involve a fold-back so that the transmembrane region and the fusion loops are again in proximity to each other at the same end of the molecule, this time both interacting with the fused viral and cellular membrane (**FIG. 6C**).

We speculate that, in prefusion gB, there may be dynamic changes in the length of the central helix, with the prefusion structure we have determined representing a “snapshot” of a “breathing” molecule, locked into the conformation we see in the electron density by the fusion inhibitor and by the cross-linking agent used to prepare the sample studied by electron cryomicroscopy.

Stabilizing factors for the observed prefusion conformation

After modeling the gB amino acids into the electron density map, a region of density that was not filled by amino acid residues remained between the MPR, domain V, and the tip of domain I that contains the fusion loops (**FIG. 5A**). The size and shape of the unfilled density fits the chemical structure of the HCMV fusion inhibitor, N-{4-[({(1*S*)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl}carbamothioyl)amino]phenyl}-1,3-thiazole-4-carboxamide (**FIG. 5D**), which had been present throughout the production of the sample studied by electron cryomicroscopy (**FIG. 5B**). The compound adopted a pose with a kink between the trifluoromethyl phenyl moiety and the rest of the compound. The thiazole forms contacts with hydrophobic residues of L712, A738 and Y153, Y155 from an adjacent protomer. The phenyl

is surrounded in a hydrophobic environment formed by residues of L715, the aliphatic hydrocarbon of D714 from domain V, G734 and I 730 from MPR, and F752 from the TM domain of an adjacent protomer. The trifluoromethyl phenyl resides in a hydrophobic environment near the hinge between MPR and TM helixes from another protomer. It may act as a hook to prevent the outward movement of MPR and TM domains. In addition to the interaction coordinated by the inhibitor compound, the W240, Y242 from other fusion loop are forming van der waals interactions with the hydrophobic patch from the MPR region and L715 in domain V respectively. (**FIG. 5C**). These specific interactions around the fusion inhibitor would be expected to hold domain I, domain V, and the MPR together and restrict movements among domain I, domain V, and the MPR during the fusion process (**FIGs. 6A-6C**).

The effects of cross linking on the stability of the prefusion conformation were also tested. During the sample preparation steps, BS^2G cross linking reagents either were or were not added. In the absence of the cross linker, the ratio of particles in prefusion versus postfusion conformations was 1:100, while the ratio was 1:4 in the sample that had been cross linked by the BS^2G reagent. The cross linker was not identified in the electron density.

The prefusion structure of CMV gB and color versions of the prefusion and postfusion structures set forth in the Figures described herein may also be found in Liu et al. *Science Advances* 7(10): eabf3178 (2021), which is hereby incorporated by reference herein in its entirety.

EXAMPLE 3: Expression and purification of gB1666

For the production of gB1666, the PSB1666 construct was transiently transfected into Expi293F cells. The cell pellets were harvested 96 hours after transfection. The PSB1666 protein was purified in 25mM HEPES pH 7.5, 250mM NaCl, 0.02% DDM, 0.002% CHS, 3µg/ml WAY-174865 (inhibitor, see **FIG. 5D**) through a series or processes of solubilization, affinity column and size exclusion chromatography. The protein was analyzed on SDS-PAGE and by EM with negative staining to ensure at least 50% of the proteins displaying prefusion conformation. The PSB1666 protein is expressed efficiently in transfection of Expi293F cells and 1L expression would generate ~0.1mg of purified PSB1666 in high quality.

The polypeptide gB1666 (PSB1666) (SEQ ID NO: 57) includes a mutation in Domains I and IV. The polypeptide includes the following mutations, D217C and Y589C, relative to the corresponding wild-type gB (Towne) set forth in SEQ ID NO: 1.

EXAMPLE 4: DNA-expressed gB1666 is immunogenic in Balb/c mice

One of the proposed stabilized full length prefusion gB constructs, gB1666 (SEQ ID NO: 57), has been shown by EM to have an increased proportion of molecules in the prefusion conformation relative to wild type gB of the Towne strain after purification from transfected mammalian cells in the presence of a fusion inhibitor (WAY-174865; see **FIG. 5D**). To assess whether this molecule can elicit immune responses *in vivo*, the DNA sequence corresponding to gB1666 and wild type gB were cloned into an in-house mammalian expression vector. Ten Balb/c mice were electroporated with 100 ug of DNA encoding gB1666 twice at a three-week interval (D0 and D21). An additional 10 mice were electroporated by the same protocol with DNA encoding wild type gB, and a third group was electroporated with a placebo, consisting of phosphate-buffered saline. Serum samples were collected at Day 28. ELISA was performed against recombinant gB protein produced from mammalian cells, based on the wild type sequence of Towne strain but with the transmembrane domain removed (Sino Biologicals) to determine the anti-gB IgG responses according to a standard protocol. Ten out of ten animals from the wild type gB DNA immunized mice and nine of ten gB1666 DNA immunized mice generated detectable anti-gB IgG titers (**FIG. 11,** showing mean ± SD, LLOQ = 25). The study demonstrates that gB1666 is immunogenic in Balb/c mice.

EXAMPLE 5: Immunogenicity study of stabilized prefusion gB1666 protein

Immunogenicity study of gB1666 in mice. To evaluate the antibody response in mice, the following immunization scheme will be followed. At week 8, mice will be exsanguinated and the neutralization titers from the immunized animal serum will be determined and compared with those immunized with gB705 (postfuion) and/or gB wild type proteins.

Table 5. Mouse immunogenicity study design with gB1666 protein

Group	No. of Mice	Immunogen	Adjuvant	Route	Dosing Schedule
1	10	gB705 (postfusion) (1.25 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6
2	10	gB705 (postfusion) (0.25 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6
3	10	gB1666 (in inhibitor-containing buffer) (1.25 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6

4	10	gB1666 (in inhibitor-containing buffer) (0.25 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6
5	10	gB wt (in inhibitor-containing buffer) (1.25 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6
6	10	gB wt (in inhibitor-containing buffer) (0.25 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6
7	5	Buffer (+Inhibitor)	-	0.2ml/SC	Weeks 0, 3, 6
8	5	Buffer only	-	0.2ml/SC	Weeks 0, 3, 6

EXAMPLE 6

In Example 2, we disclosed the electron cryomicroscopy (cryoEM) structure of prefusion human cytomegalovirus (HCMV) strain Towne glycoprotein B (gB) in complex with an antibody fragment. The gB used for structure determination was obtained by adding a small molecule fusion inhibitor, WAY-174865, to a fermentation of authentic HCMV in mammalian cell culture and maintaining the presence of the inhibitor throughout production and analysis of gB; purifying the virus; treating the virus with a chemical cross linker, bis(sulfosuccinimidyl) glutarate (BS^2G; 7.7Å spacer arm); extracting gB from the virus with detergent; binding gB on the virion with an affinity tagged antibody fragment; and purifying the gB by affinity and sizing columns. We also disclosed the use of the prefusion gB cryoEM structure to engineer mutations that stabilize gB in the prefusion state. Specifically, we disclosed the recombinant gB protein gB1666, in which two residues are mutated to cysteine (D217C, Y589C). The resulting formation of an engineered disulfide bond between C217 and C589 increases the conformational stability of the recombinant gB in the prefusion state. gB1666 maintained prefusion structural features when it was expressed in Expi293F cells and purified in the presence of a fusion inhibitor, compound WAY-174865. In the absence of the inhibitor, gB1666 tends to undergo a conformational change and lose its prefusion structural state. Loss of prefusion conformational stability in the absence of inhibitor is not a desirable characteristic for use of the recombinant glycoprotein as an antigen for immunization. Even if gB1666 were formulated with the inhibitor, there is a risk that, upon injection into a person or animal, the dilution of the inhibitor in vivo would lead to its dissociation from gB1666 and the loss of prefusion conformation of gB1666. Thus, it is desired that HCMV gB be stabilized sufficiently in the prefusion conformation to remain in the prefusion state in the absence of WAY-174865. It is also preferable that a prefusion gB

immunogen includes a soluble ectodomain to improve manufacturability, improve solubility, improve homogeneity, and reduce or eliminate the need for formulation with a detergent or other excipient to prevent aggregation or precipitation mediated by the gB transmembrane region.

We now report the invention, through a structure-based engineering approach, of new mutations in HCMV gB that confer these improved characteristics for use of prefusion gB as an immunogen. First, we determined the structure by cryoEM of gB1666, which was solubilized by anchoring in nanodiscs and stabilized in the prefusion conformation by the presence of WAY-174865 (**FIG. 12**). Most of the new structure of the recombinant, D217C and Y589C mutant gB is similar to the structure of the virion-derived, chemically cross-linked and antibody fragment bound HCMV Towne prefusion gB that we determined previously, but there are subtle differences between the two structures in certain local regions. The difference in the structures could reflect several differences in the preparations: first, the presence of the engineered disulfide bond in gB1666, which should restrict the breathing motion of the glycoprotein; second, the anchoring of gB1666 in a nanodisc, which provides a more natural local lipid environment for the transmembrane domain than the detergents used to extract and maintain gB in solution for the previous structure determination; third, the absence of chemical cross-linking of gB1666; fourth, the higher resolution of the new structure at 3.3Å, compared to the 3.6Å resolution of the previous structure, allowing more accurate modeling of amino acid side chains.

Based on the new structural information, we designed additional stabilizing mutations on the background of the full length gB construct pSB1666 (**Table 6** and **Table 7**). We hypothesized that adding these additional mutations on the pSB1666 background would further stabilize the gB in a prefusion state (**FIG. 13**). For example, cysteine mutations at residues M371 and W506 may introduce a disulfide bond between domains II and III; cysteine mutations at the pairs of (F541, E681) and (N524,M684) may introduce disulfide bonds between domains IV and V; mutations of residues E686, D679 to hydrophobic residues could remove a locally destabilizing same charge repulsion patch and increase protein stability. Recombinant glycoproteins with a selection of the new, added mutations were expressed and purified in the absence of fusion inhibitor and without chemical crosslinking. The electrophoretic mobility of the expressed glycoproteins by SDS-PAGE showed the expected apparent molecular weight and heterogeneity consistent with glycosylation (**FIG. 14**). The samples were stored at 4 ºC, and aliquots were taken for negatively stained electron microscopy analysis on day 1 and day 7. In the 2D class averaged images, triangular shape features that resemble “top views” of the prefusion conformation of the gB were apparent. The ratio of particles in the population belonging to prefusion and postfusion classes were 5:1 on day 1 and 3:1 at day 7 (**FIG. 15**).

Based on the new structural information, we designed several soluble, detergent-free gB ectodomains (**Table 8**) with prefusion-stabilizing mutations as illustrated in **FIGs. 16A-16D**. The purified ectodomain of HCMV gB, residues 1-707, formed rosette-like aggregates, in which gB proteins associated through their exposed fusion loops. To eliminate aggregation and increase protein secretion to the condition media, we replaced four exposed hydrophobic residues within the fusion loops with the corresponding more hydrophilic amino acids from herpes simplex virus-1 (HSV-1) gB, e.g. YIH (155-157)→GHR, W240→A. We also mutated the exposed Cys246 to Ser (C246→S) to prevent formation of spurious disulfide bonds. To further stabilize the prefusion trimeric state of the antigen, we either introduced cysteine residues capable of forming inter-protomer disulfide bonds or appended C-terminal trimerization motifs, e.g. GCN4 or foldon from T4-bacteriophage fibritin. Disulfide mutations, e.g. D217C-Y589C, M317C-W506C, N524C-M684C, were further introduced to lock the proteins into the prefusion state. Recombinant glycoproteins were expressed, secreted to the conditioned media and purified in the absence of fusion inhibitor and without chemical detergent. Notably, the recombinant variant, fused to a GCN4 trimerization motif, showed optimal size-exclusion chromatography profile (**FIG. 17**). The negatively stained electron microscopy showed recombinant proteins, gB2555 and gB2556, as monodispersed proteins in the absence of inhibitor and detergents. Expected gB protein features are observed in the 2D class averaged images (**FIG. 18** and **FIG. 19**). These results confirm that these engineered constructs are suitable to be used as a framework to add more stabilizing mutations towards a prefusion form of gB in the absence of inhibitor and detergents if needed.

The coordinates and structural factors for the model of the prefusion gB associated with the present Example are provided in **Table 1B.**

Table 6. Exemplary cysteine pair mutations for disulfide bond stabilization

Row	Mutations
1	D217C, Y589C
2	I356C, A500C
3	S367C, A500C
4	S367C, A503C
5	M371C, A505C
6	M371C, W506C
7	T374C, A503C
8	Y160C, Y708C
9	L162C, M716C

10	N524C, M684C
11	G99C, A267C
12	T100C, R258C
13	T221C, E657C
14	S223C, T659C
15	F541C, E681C
16	L603C, Y667C
17	N605C, K670C
18	R607C, N688C
19	E609C, K691C

Table 7. Exemplary charge mutations for stabilization

Row	Mutations
1	E686L
2	E686I
3	D679A
4	R354F
5	R573F
6	D101L, K260L

Table 8. Construct mutations.

Construct	Mutation 1	Mutation 2	Mutation 3	Mutation 4
pSB1688	N524C	M684C		
pSB2455	M371C	W506C		
pSB2456	F541C	E681C		
pSB2457	D217C	Y589C	M371C	W506C
pSB2459	D217C	Y589C	N524C	M684C
pSB1666	D217C	Y589C		

The constructs set forth in **Table 8** were made for the purpose of testing the presence of prefusion gB in the purified recombinant protein preparation under different conditions.

Table 9. Exemplary soluble, detergent-free gB ectodomain proteins

Code	gB*	Mutations	C-Terminus Fusion Sequence
gB707	gB (1-707)	D217C, Y589C	
gB2264	gB (1-707)	D217C, Y589C, D703C, P704C	
gB2265	gB (1-707)	D217C, Y589C, Y696C, V697C	
gB2266	gB (1-702)	D217C, Y589C	RIKQIEDKIEEILSKQYHIENEIARIKKLIG (SEQ ID NO: 272)
gB2267	gB (1-702)	D217C, Y589C	KIEEILSKQYHIENEIARIKKLIG (SEQ ID NO: 269)
gB2268	gB (1-702)	D217C, Y589C	KIYHIENEIARIKKLIG (SEQ ID NO: 273)
gB2269	gB (1-703)	D217C, Y589C	LSAIGGYIPEAPRDGQAYVRKDGEWVLLSTFL (SEQ ID NO: 274)
gB2555	gB (1-702)	D217C, M371C, W506C, Y589C	KIEEILSKQYHIENEIARIKKLIG (SEQ ID NO: 269)
gB2556	gB (1-702)	D217C, N524C, Y589C, M684C	KIEEILSKQYHIENEIARIKKLIG (SEQ ID NO: 269)
gB2557	gB (1-707)	D217C, N524C, Y589C, M684C, D703C, P704C	

* Mutations, including YIH (155-157)→GHR, W240→A and C246→S, had been incorporated in gB to decrease aggregation and increase protein secretion.

EXAMPLE 7: Overall Strategies To Engineer a Stabilized Prefusion gB

To engineer a stabilized prefusion gB, two strategies were used:

i) the first strategy is to strengthen the interactions in the prefusion structure, which include engineering disulfide bonds between the residues that are in close proximity in the prefusion structure and grafting stable structure motifs to the C-terminal end without disrupting the structures from other parts of the molecule; and

ii) the second strategy is to remove the energetically unfavorable local structures from the prefusion conformation. These include: (a) removal of surface exposed hydrophobic residues, (b) changes of proline to non-proline and hydrophilic residues in the loops regions, and (c) removal and reengineering Domain V, which undergoes large conformational changes during the fusion process. The combination of such designs was used to obtain enough stabilization for the prefusion gB. The proteins carrying such designed mutations were individually purified and screened by their properties in size exclusion chromatography (SEC), thermal melting assay (TM) and their features from the electron microscopy images (EM).

A panel of mutant cysteine pair constructs was screened against the CMV gB full length post-fusion construct pSB1764. For the first round, each new construct included one mutant cysteine pair. The complete list of mutants that were screened are in **Table 10**.

Table 10: The list of one pair disulfide bond mutants that were screened on full length CMV gB

Postfusion gB Full length Construct	pSB1764
Construct Framework	CMV gB HAss FLAG / V23..V907 (ACM48044.1) I675S / Thrombin His6 StrepTagII ** in pcDNA3.1(+)

Construct name	**Mutation 1**	**Mutation 2**
pSB01579	G99C	A267C
pSB01581	T100C	S269C
pSB01582	Q98C	G271C
pSB01656	M96C	D660C
pSB01657	Q98C	N658C
pSB01658	T100C	R258C
pSB01659	T100C	L656C
pSB01660	T100C	N658C
pSB01662	I117C	S407C
pSB01663	Y153C	L712C
pSB01664	L162C	M716C
pSB01665	D217C	S587C
pSB01666	D217C	Y589C
pSB01667	S219C	F584C
pSB01668	S219C	A585C
pSB01669	S219C	N586C
pSB01671	S223C	T659C
pSB01672	W240C	A732C
pSB01673	W240C	G735C
pSB01674	Y242C	V728C
pSB01675	Y242C	G731C
pSB01678	S269C	N658C

pSB01679	D272C	P614C
pSB01680	V273C	V629C
pSB01681	W349C	A650C
pSB01682	S367C	A500C
pSB01683	S367C	A503C
pSB01684	K370C	Q501C
pSB01686	I523C	I683C
pSB01687	I523C	M684C
pSB01688	N524C	M684C
pSB01691	F541C	L680C
pSB01692	L548C	P655C
pSB01693	A549C	N658C
pSB01694	S550C	P655C
pSB01695	S550C	E657C
pSB01696	Q591C	S668C
pSB01697	L603C	Y667C
pSB01698	G604C	L672C
pSB01699	R607C	N688C
pSB01700	T608C	Q692C
pSB01702	E610C	S674C
pSB01703	E610C	S675C
pSB01704	Q612C	V663C
pSB01705	V737C	F755C
pSB01707	V741C	F755C
pSB01708	D679S	N/A
pSB01709	D679N	N/A
pSB01712	E686S	N/A
pSB01713	E686Q	N/A
pSB01715	D646P	N/A
pSB02041	E686F	N/A
pSB02043	E686I	N/A
pSB02044	E686V	N/A

It was determined from the screen that cysteine pair D217C-Y589C (pSB1666), in combination with inhibitor WAY-174865, stabilized CMV gB in the prefusion state.

In the presence of the fusion inhibitor, the construct gB1666 (engineered disulfide by mutating D217C and Y589C) showed a right shift in the in SEC retention volume and a distinct transition temperature at ~73°C indicating a different conformation from that of the wild type gB (**FIG. 22A and 22B**). gB1666 was further characterized by EM imaging experiments. From the cryoEM dataset 2D classification results, prefusion classes were observed as the dominant population and the 3D structure density map confirmed the prefusion gB structure (data not shown). However, in the absence of the inhibitor, the right shifted peak from SEC and the transition temperature peak at ~73°C are less distinct (**FIG. 23**). This suggested a single disulfide bond has limited effect to retain gB1666 in a prefusion state.

Thus, a second round of mutations were screened in frame of gB1666 to create further stability of the prefusion conformation in the absence of the inhibitor (**Table 11**). A new mutant panel was cloned and screened in which a second cysteine pair was introduced into construct pSB1666. The goal was to add another stabilizing disulfide bridge, in order to further stabilize CMV gB in the prefusion state.

Table 11: The list of two pairs of disulfide bonds mutants that were screened on full length CMV gB

Full length Prefusion construct	pSB1666
Construct Description	CMV HAss FLAG / V23..V907 (ACM48044.1)[**D217C-Y589C**] I675S / Thrombin His6 StrepTagII ** in pcDNA3.1(+).

Construct name	**Mutation 1**	**Mutation 2**
pSB02145	T100C	N658C
pSB02146	S367C	A500C
pSB02147	D272C	P614C
pSB02148	S219C	F584C
pSB02149	E686V	
pSB02191	D217C	F584C
pSB02193	D217C	N586C
pSB02194	D217C	S588C
pSB02195	S219C	S587C
pSB02196	S219C	S588C
pSB02197	S219C	Y589C

pSB02455	M371C	W506C
pSB02456	F541C	E681C
pSB02457	M371C	W506C
pSB02459	N524C	M684C

It was determined from this screen that cysteine pair D217C-Y589C, in combination with either pair M371C-W506C (pSB2457) or pair N524C-M684C (pSB2459) stabilized CMV gB in the prefusion state, without the need for a stabilizing inhibitor. gB2457 and gB2459 proteins showed similar profiles in SEC and TM results as the prefusion form (gB1666 + inhibitor) (**FIG. 24A-24B**). gB2457 had a more distinct transition at ~73°C in thermal stability assay (**FIG. 24B**). In addition, both gB2457 and gB2459 showed the prefusion gB feature in the negative staining EM 2D class averaged images (data not shown). In the absence of a fusion inhibitor, gB2457 and gB2459 represent more stable versions of prefusion gB than their parent design, i.e. gB1666. Such improvement also confirms that the right combination of stabilizing mutation sites can synergistically contribute to the overall stability of the prefusion conformation.

In comparison to the full length and membrane bound forms of prefusion gB, a soluble format prefusion gB does not require detergent which provides advantages in scalability of protein production and ease of purification. Based on the known structure, the membrane interaction domains from gB are the membrane proximal region (MPR), the transmembrane (TM) domain and fusion loops. The cytoplasmic tail domain may also interact with membrane from the cytosolic side. Thus, these membrane-interacting hydrophobic regions were either removed or converted to hydrophilic types in the designs for a soluble form prefusion gB. In addition, structurally stable trimerization tags (e.g. GCN4, cysteine rings, trimeric foldon) were added at the carboxy terminal of the protein that truncated at before the MPR domain. Several truncation designs were tested before the GCN4 tag (gB2267) was selected to be used as an ectodomain construct frame. The stabilizing mutation sites identified from full length frame were made on this ectodomain frame and screened (**Table 12**).

In the resulting gB2555 and gB2556, which were well behaved proteins after purification (**FIG. 25A**), the phase transition peak at a lower temperature ~73° was not obvious (**FIG. 25B**). But the 2D classification from negative staining EM images indicated that both prefusion and postfuiosn forms were present (data not shown) and further stabilization were still needed for the ectodomain prefusion gB. The third pair of disulfide bonds were screened on the pSB2556 background (**Table 12**), but not much improvement was observed.

Table 12. Ectodomain CMV gB mutants with triple disulfide bond pairs

Ectodomain construct	pSB2556
Construct Description	pSB2556:CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH to GHR (155-157)**[D217C-Y589C] [N524C-M684C]** W240A C246S I675S / GCN4 CC tri2 ** in pcDNA3.1(+).

construct name	**mutation 1**	**mutation 2**
pSB2558	I356C	A500C
pSB2559	S367C	A500C
pSB2560	S367C	A503C
pSB2561	M371C	A505C
pSB2562	M371C	W506C
pSB2563	T374C	A503C
pSB2564	G99C	A267C
pSB2565	T100C	R258C
pSB2567	L603C	Y667C
pSB2568	N605C	K670C
pSB2570	E609C	K691C
pSB2571	T221C	E657C
pSB2572	S223C	T659C

Since domain V undergoes large conformational changes and was expected to provide the energy to drive the membrane fusion between the viral and host cells, a new approach was to remove Domain V from the ectodomain gB. SB2562 was chosen as the starting construct (**Table 13** and **Table 14**).

Table 13. Additional Ectodomain Designs

pSB2795	CMV HAss FLAG / V23..D646 gB CMV (ACM48044) YIH to GHR (155-157) D217C W240A C246S M371C N524C W506C Y589C I675S ** in pcDNA3.1(+).
pSB2797	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH to GHR (155-157) 648 MIALDI to GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C / GCN4 CC tri2 ** in pcDNA3.1(+).
pSB2968	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) PI116117GS YIH to GHR (155-157) 648 MIALDI to GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C / GCN4 CC tri2 ** in pcDNA3.1(+).

A	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH to GHR (155-157) 648 MIALDI to GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C R693V, last res L695 + KIKQIEDK IEEILSK IYHIENE IARIKKL IG ** in pcDNA3.1(+)
B	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH to GHR (155-157) 648 MIALDI to GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C R685A R693V, last res L695 + KIKQIEDK IEEILSK IYHIENE IARIKKL IG ** in pcDNA3.1(+)
C	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH to GHR (155-157) 648 MIALDI to GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C F678S, L680T R693V, last res L695 + KIKQIEDK IEEILSK IYHIENE IARIKKL IG ** in pcDNA3.1(+)
D	CMV HAss FLAG / V23..V702 gB CMV (ACM48044) YIH to GHR (155-157) 648 MIALDI to GSGKDG D217C W240A C246S M371C N524C W506C Y589C I675S M684C P655S R693V, last res L695 + KIKQIEDK IEEILSK IYHIENE IARIKKL IG ** in pcDNA3.1(+)

One of the designs removed the entire Domain V in which residues after D646 were truncated. Since the disulfide pair could no longer form at N524C and M684C, the N524C was reverted back to its wildtype asparagine residue (N) in order to remove the free cysteine (pSB2796) (**Table 14**). This construct was named gB2796 and showed a well-behaved protein as a single peak in SEC profile with a distinct phase transition temperature at ~70°C (**FIG. 26A and 26B**). From the cryoEM dataset, 2D class average showed clear expected protein densities that corresponded to the structural features from the model of ectodomain prefusion gB. The 3D reconstructed density envelope also corresponded to the expected ectodomain structure. (data not shown).

Table 14. Domain V truncated ectodomain CMV gB mutant with disulfide bond pairs

CMV ectodomain gB prefusion	pSB2796
Description	CMV HAss FLAG / V23..**D646** gB CMV (ACM48044) YIH to GHR (155-157) [**D217C-Y589C**] [**M371C-W506C**]W240A C246S I675S ** in pcDNA3.1(+).

Construct pSB2796 was redesigned into different N-term tagged versions for use in animal studies (**Table 15**). The Flag tag was swapped out for a 6xHis tag, which is more amenable for purification scale up. An untagged version was also created. The HA signal sequence was also replaced with the IgK signal sequence because it is more compatible with the His tag.

Table 15. Construct Design for CMV gB ectodomain prefusion mouse study

pSB3075	CMV: IgKss **6xHis rTEV** / V23..D646 gB CMV (ACM48044) YIH to GHR (155-157) D217C W240A C246S M371C W506C Y589C I675S ** in pcDNA3.1(+).
pSB3076	CMV: IgKss **6xHis PP** / V23..D646 gB CMV (ACM48044) YIH to GHR (155-157) D217C W240A C246S M371C W506C Y589C I675S ** in pcDNA3.1(+).
pSB3077	CMV: IgKss **6xHis** / V23..D646 gB CMV (ACM48044) YIH to GHR (155-157) D217C W240A C246S M371C W506C Y589C I675S ** in pcDNA3.1(+).
pSB3078	CMV: IgKss/ V23..D646 gB CMV (ACM48044) YIH to GHR (155-157) D217C W240A C246S M371C W506C Y589C I675S ** in pcDNA3.1(+).

These data showed that the prefusion gB is metastable and stabilizing mutations at multiple sites are needed to achieve enough restraints to maintain its prefusion structure. The combination of disulfide bonds and the modifications of unstable Domain V provide examples of locking the prefusion conformation. The stabilized gB can be engineered in full length (gB1666, gB2457, gB2459) and ectodomain protein formats (gB2796), which are suitable for use as prefusion gB antigens. In addition, the SEC, the thermal shift assay and EM imaging approaches provided ways to evaluate the conformational state of the gB samples without the need for prefusion or postfusion specific antibodies.

Methods

Cysteine mutants construct design and cloning

All constructs were cloned into the pcDNA3.1(+) vector backbone (ThermoFisher Scientific, Waltham, MA). Primers, each containing a cysteine point mutation, were ordered from IDT (Coralville, Iowa). Site directed mutagenesis was performed using a QuikChange Multi Site-Directed Mutagenesis Kit (Agilient, Santa Clara, CA). The mutagenized DNA was transformed into DH5 alpha cells. Colonies were selected and sent for sequencing. Positive transformants were verified by DNA sequencing analysis. Plasmid DNA was amplified using DNA preparation kits.

Mammalian cell expression

EXPI293 cells were grown to an OD of 3 x 10^6 cells/mL. Plasmid DNA was diluted in OptiMem media and mixed 1:1 with PEI solution. The DNA-PEI mixture was then transfected into the EXPI293 cells at a concentration of 1ug DNA /mL culture. Enhancers were added 24 hours post transfection. Cells were monitored and harvested by centrifugation 4 to 5 days post transfection.

Protein purification

CMVgB proteins were purified through a series or processes of solubilization, affinity column and size exclusion chromatography (SEC). SEC is run on Superose6 increase column in buffer 25 mM HEPES pH 7.5, 250 mM NaCl, 0.02% DDM, 0.002% CHS. For experiments with inhibitor, 3ug/ml WAY-174865 was added.

Thermal stability assay

As a complementary biophysical study of the gB mutants to help identify prefusion stable mutants, thermal stability of the purified gB proteins was analyzed on Tycho NT.6 with 20°C/min heating rate from 35°C to 95°C.

Negative staining grid preparation

Thin carbon supported grids were glow discharged by EZ-glow with -20mA current for 30 seconds before use. Aliquots of 4ul sample solution at the protein concentration of 0.02mg/ml were applied to the carbon surface of the grids and let sit for 45 seconds. The sample solution was then blotted away with filter paper and same carbon surface was rinsed with filtered water and excess water was blotted away with filter paper. The grid was stained with 2% uranyl acetate solution and air dried before being loaded to a TF20 electron microscope for imaging.

Cryo Grids preparations

Quantifoil grids were plasma cleaned with Argon/Oxygen. Graphene oxide stock solution diluted to 0.2mg/ml concentration (Sigma) was applied to the surface of the treated grid and let sit for 2 minutes. The excess solution was blotted with filter paper and washed with one droplet of water to remove excess graphene oxide. The grid was dried overnight before use. Aliquots of sample solution were vitrified on graphene oxide film-supported grids using a Vitrobot (ThermoFisher). The grids were stored in liquid nitrogen until loaded in the microscope under cryo conditions for imaging.

CryoEM data collection, image processing

Data collections were done on a Thermo Fisher Titan Krios transmission electron microscope that operates at 300 kV with SerialEM program at a nominal magnification (165,000 X) using a K2 direct detector camera (Gatan) with super resolution movie mode. The unbinned pixel size was 0.434 Å, and the beam intensity was ~8e/unbin pixels. The total electron dose on the sample for each movie was ~40e/Å2. Both Relion and cisTEM programs were used for the data processing.

EXAMPLE 8: gB2796 Immunogenicity

One of the designed prefusion stabilized ectodomain gB proteins (gB2796) containing amino acids 23-646 with mutations YIH to GHR (155-157), D217C, W240A, C246S, M371C, W506C and Y589C was purified from transfected mammalian via FLAG tag in the absence of fusion inhibitor. Briefly, the protein was purified by adding 20mM Tris pH 7.5, 200mM NaCl into the 3L cell media overexpressing SB2796. After incubation with 10ml of M2 column at 4°C with rotation for 4 hours, the supernatant was removed and the column was washed thoroughly with PBS. Then the protein was eluted with PBS containing 150µg/ml FLAG peptide and subsequently concentrated. Size-exclusion chromatography

was performed on Superose6 increase 10/300 in PBS at 0.5ml/min, and the fractions were collected. The purified protein was analyzed on 4–20% Mini-PROTEAN® TGX Stain-Free™ Protein Gels (Biorad) in Tris/glycine/SDS buffer (**FIG. 20A**) as well as by electronic microscopy with negative staining **(FIG. 20B)**. The EM image showed the triangular shape of the protein particles which is the typical prefusion conformation.

To assess whether gB2796 can elicit a better immune response compared to postfusion gB, a secreted postfusion gB was produced based on the same strain of HCMV with transmembrane domain removed. The protein was named Sanofi gB since it is equivalent to the gB protein used in previous clinical trial by Sanofi (Pass, *et al.* 2009). Purification of this tagless gB was achieved using affinity chromatography on Lentil Lectin-Sepharose (GE Healthcare) column, followed by anion-exchange chromatography on Toyopearl GigaCap Q-650M (Tosoh), and size-exclusion chromatography on Superdex 200 (GE Healthcare) column.

An *in vivo* immunogenicity study was conducted in mice with prefusion and postfusion gB described above, as shown in **Table 16** below.

Table 16. Immunization dose and schedule

Group	No. of Mice	Immunogen	Adjuvant	Route	Dosing Schedule
1	10	gB2796 (4 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6
2	10	gB2796 (1 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6
3	10	gB2796 (0.25 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6
6	10	Sanofi gB (4 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6
7	10	Sanofi gB (1 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6
8	10	Sanofi gB (0.25 mcg/0.2ml)	-	0.2ml/SC	Weeks 0, 3, 6

At week 5 (2 weeks after second dose), mice sera samples were analyzed by ELISA to determine the IgG titers against gB2796. The results show dose-dependent IgG responses in both gB2796 and Sanofi gB immunized mice (**FIG. 21**).

Listing of Raw Sequences

Construct	Sequence*	SEQ ID NO:
	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER	255

CMV gB1666: V23..V907 of SEQ ID NO: 1 (Towne) (ACM48044.1) **[D217C Y589C I675S]**	NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAYIHTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVIA GTVFVAYHRDSYENKTMQLMPD**C**YSNTHSTRYVTVKDQWH SRGSTWLYRETCNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKMTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNT SYNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRS SLNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTL RGYINRALAQIAEAWCVDQRRTLEVFKELSKINPSAILSAIYNKP IAARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRP VVIFNFANSS**C**VQYGQLGEDNEILLGNHRTEECQLPSLKIFIAG NSAYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELY SQKELRS**S**NVFDLEEIMREFNSYKQRVKYVEDKVVDPLPPYLK GLDDLMSGLGAAGKAVGVAIGAVGGAVASVVEGVATFLKNP FGAFTIILVAIAVVIIIYLIYTRQRRLCMQPLQNLFPYLVSADGTT VTSGNTKDTSLQAPPSYEESVYNSGRKGPGPPSSDASTAAPPY TNEQAYQMLLALVRLDAEQRAQQNGTDSLDGQTGTQDKGQ KPNLLDRLRHRKNGYRHLKDSDEEENV	
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCTACATCCATACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAT GGCTGTATAGAGAGACCTGTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGATGACCGCAACCTTCCTG TCTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGA CTGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTT TCAATACCTCCTACAATCAGACATATGAAAAATACGGAAAC GTGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTG GCAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACG CCTGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGG	**256**

	ACAAAGAGGAGCACCGACGGAAACAATGCTACACACCTTT CCAACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTT CAGTTCACTTATGACACACTGCGGGGCTACATAAACAGGGC TCTGGCACAGATAGCCGAGGCTTGGTGTGTGGACCAGCGG AGAACCCTGGAGGTATTTAAAGAACTGTCTAAGATCAACCC CTCTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGC ACGCTTCATGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGA CAATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAA CGTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTG GTGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGT CAACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATC GGACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATT GCAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAA AAGAATGATTGATCTGAGCAGCATTTCCACTGTGGACAGTA TGATCGCACTGGACATTGACCCTTTGGAAAACACCGATTTT CGCGTCCTTGAGCTGTACTCCCAGAAAGAACTGCGCTCTAG CAACGTCTTTGATCTTGAGGAGATCATGAGGGAGTTTAACT CTTATAAACAGAGGGTGAAGTATGTGGAGGATAAAGTGGT CGACCCTCTGCCACCCTACCTCAAAGGACTGGACGATCTGA TGAGCGGACTTGGAGCTGCCGGCAAAGCCGTCGGGGTGG CTATCGGTGCCGTGGGCGGCGCCGTGGCTTCTGTGGTTGA GGGAGTGGCCACTTTTCTTAAAAATCCTTTCGGAGCTTTTAC CATTATTCTGGTCGCCATCGCCGTGGTGATCATCATTTATCT GATCTACACCCGCCAGCGCCGCTTGTGCATGCAGCCACTTC AGAACCTGTTTCCCTATCTGGTCAGTGCTGACGGTACAACC GTGACCAGCGGCAACACAAAGGACACAAGCCTTCAGGCTC CTCCAAGTTATGAAGAGTCCGTGTATAATTCTGGGAGGAA GGGACCTGGTCCCCCCTCTTCCGACGCCTCAACAGCGGCAC CCCCCTACACCAATGAGCAGGCATATCAGATGCTCCTGGCC CTTGTGCGGCTCGATGCCGAGCAACGCGCACAACAGAACG GGACGGATTCTCTCGACGGACAGACAGGCACTCAGGACAA AGGCCAGAAGCCCAACCTTCTGGATCGGTTGCGGCATAGA AAAAACGGCTATAGACACCTCAAGGACTCAGACGAAGAAG AGAACGTC	
CMV gB2457 (Prefusion, Full length) V23 to V907 of SEQ ID NO: 1 (Towne) [D217C M371C W506C Y589C I675S]	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAYIHTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVIA GTVFVAYHRDSYENKTMQLMPD**C**YSNTHSTRYVTVKDQWH SRGSTWLYRETCNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKCTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNTS YNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRSS LNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTLR GYINRALAQIAEACCVDQRRTLEVFKELSKINPSAILSAIYNKPIA ARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRPVV IFNFANSSCVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAGNS AYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELYSQ KELRSSNVFDLEEIMREFNSYKQRVKYVEDKVVDPLPPYLKGL DDLMSGLGAAGKAVGVAIGAVGGAVASVVEGVATFLKNPFG	**257**

	AFTIILVAIAVVIIIYLIYTRQRRLCMQPLQNLFPYLVSADGTTVT SGNTKDTSLQAPPSYEESVYNSGRKGPGPPSSDASTAAPPYTN EQAYQMLLALVRLDAEQRAQQNGTDSLDGQTGTQDKGQKP NLLDRLRHRKNGYRHLKDSDEEENV	
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCTACATCCATACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAT GGCTGTATAGAGAGACCTGTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGTGCACCGCAACCTTCCTGT CTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGAC TGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTTT CAATACCTCCTACAATCAGACATATGAAAAATACGGAAACG TGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTGG CAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACGCC TGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGGAC AAAGAGGAGCACCGACGGAAACAATGCTACACACCTTTCC AACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTTCA GTTCACTTATGACACACTGCGGGGCTACATAAACAGGGCTC TGGCACAGATAGCCGAGGCTTGCTGTGTGGACCAGCGGAG AACCCTGGAGGTATTTAAAGAACTGTCTAAGATCAACCCCT CTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGCA CGCTTCATGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGAC AATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAAC GTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTGG TGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGTC AACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATCG GACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATTG CAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAAA AGAATGATTGATCTGAGCAGCATTTCCACTGTGGACAGTAT GATCGCACTGGACATTGACCCTTTGGAAAACACCGATTTTC	258

	GCGTCCTTGAGCTGTACTCCCAGAAAGAACTGCGCTCTAGC AACGTCTTTGATCTTGAGGAGATCATGAGGGAGTTTAACTC TTATAAACAGAGGGTGAAGTATGTGGAGGATAAAGTGGTC GACCCTCTGCCACCCTACCTCAAAGGACTGGACGATCTGAT GAGCGGACTTGGAGCTGCCGGCAAAGCCGTCGGGGTGGC TATCGGTGCCGTGGGCGGCGCCGTGGCTTCTGTGGTTGAG GGAGTGGCCACTTTTCTTAAAAATCCTTTCGGAGCTTTTACC ATTATTCTGGTCGCCATCGCCGTGGTGATCATCATTTATCTG ATCTACACCCGCCAGCGCCGCTTGTGCATGCAGCCACTTCA GAACCTGTTTCCCTATCTGGTCAGTGCTGACGGTACAACCG TGACCAGCGGCAACACAAAGGACACAAGCCTTCAGGCTCC TCCAAGTTATGAAGAGTCCGTGTATAATTCTGGGAGGAAG GGACCTGGTCCCCCCTCTTCCGACGCCTCAACAGCGGCACC CCCCTACACCAATGAGCAGGCATATCAGATGCTCCTGGCCC TTGTGCGGCTCGATGCCGAGCAACGCGCACAACAGAACGG GACGGATTCTCTCGACGGACAGACAGGCACTCAGGACAAA GGCCAGAAGCCCAACCTTCTGGATCGGTTGCGGCATAGAA AAAACGGCTATAGACACCTCAAGGACTCAGACGAAGAAGA GAACGTC	
CMV gB2459 (Prefusion, Full length) V23 to V907 of SEQ ID NO: 1 (Towne) [D217C N524C Y589C M684C I675S]	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAYIHTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVIA GTVFVAYHRDSYENKTMQLMPDCYSNTHSTRYVTVKDQWH SRGSTWLYRETCNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKMTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNT SYNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRS SLNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTL RGYINRALAQIAEAWCVDQRRTLEVFKELSKICPSAILSAIYNKP IAARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRP VVIFNFANSSCVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAG NSAYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELY SQKELRSSNVFDLEEICREFNSYKQRVKYVEDKVVDPLPPYLKG LDDLMSGLGAAGKAVGVAIGAVGGAVASVVEGVATFLKNPF GAFTIILVAIAVVIIIYLIYTRQRRLCMQPLQNLFPYLVSADGTTV TSGNTKDTSLQAPPSYEESVYNSGRKGPGPPSSDASTAAPPYT NEQAYQMLLALVRLDAEQRAQQNGTDSLDGQTGTQDKGQK PNLLDRLRHRKNGYRHLKDSDEEENV	**259**
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCTACATCCATACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC	**260**

	AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAT GGCTGTATAGAGAGACCTGTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGATGACCGCAACCTTCCTG TCTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGA CTGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTT TCAATACCTCCTACAATCAGACATATGAAAAATACGGAAAC GTGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTG GCAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACG CCTGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGG ACAAAGAGGAGCACCGACGGAAACAATGCTACACACCTTT CCAACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTT CAGTTCACTTATGACACACTGCGGGGCTACATAAACAGGGC TCTGGCACAGATAGCCGAGGCTTGGTGTGTGGACCAGCGG AGAACCCTGGAGGTATTTAAAGAACTGTCTAAGATCTGTCC CTCTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGC ACGCTTCATGGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGA CAATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAA CGTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTG GTGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGT CAACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATC GGACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATT GCAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAA AAGAATGATTGATCTGAGCAGCATTTCCACTGTGGACAGTA TGATCGCACTGGACATTGACCCTTTGGAAAACACCGATTTT CGCGTCCTTGAGCTGTACTCCCAGAAAGAACTGCGCTCTAG CAACGTCTTTGATCTTGAGGAGATCTGTAGGGAGTTTAACT CTTATAAACAGAGGGTGAAGTATGTGGAGGATAAAGTGGT CGACCCTCTGCCACCCTACCTCAAAGGACTGGACGATCTGA TGAGCGGACTTGGAGCTGCCGGCAAAGCCGTCGGGGTGG CTATCGGTGCCGTGGGCGGCGCCGTGGCTTCTGTGGTTGA GGGAGTGGCCACTTTTCTTAAAAATCCTTTCGGAGCTTTTAC CATTATTCTGGTCGCCATCGCCGTGGTGATCATCATTTATCT GATCTACACCCGCCAGCGCCGCTTGTGCATGCAGCCACTTC AGAACCTGTTTCCCTATCTGGTCAGTGCTGACGGTACAACC GTGACCAGCGGCAACACAAAGGACACAAGCCTTCAGGCTC CTCCAAGTTATGAAGAGTCCGTGTATAATTCTGGGAGGAA GGGACCTGGTCCCCCCTCTTCCGACGCCTCAACAGCGGCAC CCCCCTACACCAATGAGCAGGCATATCAGATGCTCCTGGCC CTTGTGCGGCTCGATGCCGAGCAACGCGCACAACAGAACG	

	GGACGGATTCTCTCGACGGACAGACAGGCACTCAGGACAA AGGCCAGAAGCCCAACCTTCTGGATCGGTTGCGGCATAGA AAAAACGGCTATAGACACCTCAAGGACTCAGACGAAGAAG AGAACGTC	
CMV gB2555: V23..V702 gB CMV (ACM48044) of SEQ ID NO: 1 (Towne) including trimerization domain (GCN4 CC tri2) [YIH to GHR (155-157) D217C W240A M371C C246S W506C Y589C I675S / **GCN4 CC tri2**]	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAGHRTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVI AGTVFVAYHRDSYENKTMQLMPDCYSNTHSTRYVTVKDQW HSRGSTALYRETSNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKCTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNTS YNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRSS LNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTLR GYINRALAQIAEACCVDQRRTLEVFKELSKINPSAILSAIYNKPIA ARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRPVV IFNFANSSCVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAGNS AYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELYSQ KELRSSNVFDLEEIMREFNSYKQRVKYVEDKVV**KIEEILSKQYHI ENEIARIKKLIG**	**261**
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCGGTCATCGTACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAG CACTGTATAGAGAGACCTCTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGTGCACCGCAACCTTCCTGT CTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGAC TGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTTT CAATACCTCCTACAATCAGACATATGAAAAATACGGAAACG TGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTGG	**262**

	CAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACGCC TGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGGAC AAAGAGGAGCACCGACGGAAACAATGCTACACACCTTTCC AACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTTCA GTTCACTTATGACACACTGCGGGGCTACATAAACAGGGCTC TGGCACAGATAGCCGAGGCTTGCTGTGTGGACCAGCGGAG AACCCTGGAGGTATTTAAAGAACTGTCTAAGATCAACCCCT CTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGCA CGCTTCATGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGAC AATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAAC GTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTGG TGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGTC AACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATCG GACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATTG CAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAAA AGAATGATTGATCTGAGCAGCATTTCCACTGTGGACAGTAT GATCGCACTGGACATTGACCCTTTGGAAAACACCGATTTTC GCGTCCTTGAGCTGTACTCCCAGAAAGAACTGCGCTCTAGC AACGTCTTTGATCTTGAGGAGATCATGAGGGAGTTTAACTC TTATAAACAGAGGGTGAAGTATGTGGAGGATAAAGTGGTC **AAGATCGAGGAGATCCTGTCCAAGCAGTACCACATCGAG AACGAGATCGCCCGCATCAAGAAGCTGATCGGC**	
CMV gB2556: V23..V702 gB CMV (ACM48044) of SEQ ID NO: 1 (Towne) including trimerization domain (GCN4 CC tri2) [YIH to GHR (155-157) D217C W240A C246S N524C Y589C I675S M684C / **GCN4 CC tri2**]	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAGHRTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVI AGTVFVAYHRDSYENKTMQLMPDCYSNTHSTRYVTVKDQW HSRGSTALYRETSNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKMTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNT SYNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRS SLNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTL RGYINRALAQIAEAWCVDQRRTLEVFKELSKICPSAILSAIYNKP IAARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRP VVIFNFANSSCVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAG NSAYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELY SQKELRSSNVFDLEEICREFNSYKQRVKYVEDKVV**KIEEILSKQY HIENEIARIKKLIG**	**263**
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCGGTCATCGTACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT	**264**

	ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAG CACTGTATAGAGAGACCTCTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGATGACCGCAACCTTCCTG TCTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGA CTGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTT TCAATACCTCCTACAATCAGACATATGAAAAATACGGAAAC GTGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTG GCAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACG CCTGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGG ACAAAGAGGAGCACCGACGGAAACAATGCTACACACCTTT CCAACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTT CAGTTCACTTATGACACACTGCGGGGCTACATAAACAGGGC TCTGGCACAGATAGCCGAGGCTTGGTGTGTGGACCAGCGG AGAACCCTGGAGGTATTTAAAGAACTGTCTAAGATCTGTCC CTCTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGC ACGCTTCATGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGA CAATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAA CGTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTG GTGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGT CAACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATC GGACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATT GCAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAA AAGAATGATTGATCTGAGCAGCATTTCCACTGTGGACAGTA TGATCGCACTGGACATTGACCCTTTGGAAAACACCGATTTT CGCGTCCTTGAGCTGTACTCCCAGAAAGAACTGCGCTCTAG CAACGTCTTTGATCTTGAGGAGATCTGTAGGGAGTTTAACT CTTATAAACAGAGGGTGAAGTATGTGGAGGATAAAGTGGT C**AAGATCGAGGAGATCCTGTCCAAGCAGTACCACATCGA** **GAACGAGATCGCCCGCATCAAGAAGCTGATCGGC**	
CMV gB2796 (Prefusion, ectodomain) V23 to D646 of SEQ ID NO: 1 (Towne) [YIH to GHR (155-157) D217C W240A C246S M371C W506C Y589C]	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAGHRTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVI AGTVFVAYHRDSYENKTMQLMPDCYSNTHSTRYVTVKDQW HSRGSTALYRETSNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKCTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNTS YNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRSS LNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTLR	**265**

	GYINRALAQIAEACCVDQRRTLEVFKELSKINPSAILSAIYNKPIA ARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRPVV IFNFANSSCVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAGNS AYEYVDYLFKRMIDLSSISTVD	
	GTATCCTCCAGCTCTACTAGAGGAACGAGCGCGACCCATTC ACACCACAGCTCCCACACTACGAGCGCTGCCCATTCTAGGA GTGGCTCCGTGTCACAACGCGTTACTAGTAGCCAGACCGTG TCTCACGGCGTCAACGAGACAATTTACAACACGACGCTGAA ATACGGCGATGTCGTGGGTGTGAATACTACCAAGTACCCCT ATAGAGTCTGTAGCATGGCCCAGGGCACCGACCTGATCAG GTTCGAACGGAACATCGTTTGCACATCAATGAAGCCTATCA ACGAAGACCTTGACGAGGGGATTATGGTGGTATACAAACG GAATATCGTGGCTCACACCTTCAAAGTGCGAGTGTATCAGA AGGTTCTGACATTCCGAAGAAGTTACGCCGGTCATCGTACC ACCTATCTGCTGGGCTCCAACACTGAGTACGTGGCGCCCCC AATGTGGGAAATCCACCACATCAACAGCCATTCACAGTGCT ACTCTTCCTACAGCAGGGTGATTGCGGGCACAGTGTTTGTG GCCTACCACAGGGACAGCTATGAGAACAAGACGATGCAGT TGATGCCAGATTGTTACAGTAACACTCACAGTACACGGTAT GTTACAGTTAAGGATCAGTGGCATTCACGCGGAAGCACAG CACTGTATAGAGAGACCTCTAATTTGAATTGTATGGTAACT ATCACTACTGCACGGAGCAAGTACCCTTATCATTTCTTTGCT ACAAGCACGGGCGATGTGGTAGACATCAGCCCCTTCTATAA TGGCACAAATCGGAACGCAAGCTATTTCGGGGAGAACGCC GACAAGTTTTTCATTTTTCCTAATTATACTATTGTTTCTGACT TCGGGAGACCCAACTCCGCCCTGGAAACTCACAGACTGGTT GCGTTCCTCGAAAGAGCAGATTCTGTGATATCCTGGGACAT TCAGGATGAAAAGAACGTCACGTGTCAGCTGACCTTCTGG GAGGCCTCAGAGCGGACGATCCGGTCTGAGGCCGAGGACT CTTACCACTTTAGCAGCGCCAAGTGCACCGCAACCTTCCTGT CTAAAAAACAGGAAGTGAACATGTCCGATTCTGCTTTGGAC TGCGTTCGCGATGAGGCCATCAACAAGCTTCAACAAATTTT CAATACCTCCTACAATCAGACATATGAAAAATACGGAAACG TGAGTGTCTTTGAAACCACCGGGGGCCTGGTCGTGTTCTGG CAGGGTATCAAACAGAAGAGCCTGGTGGAACTGGAACGCC TGGCCAACAGAAGCAGTTTGAACCTCACGCACAACCGGAC AAAGAGGAGCACCGACGGAAACAATGCTACACACCTTTCC AACATGGAGTCTGTCCACAATCTGGTTTATGCACAGCTTCA GTTCACTTATGACACACTGCGGGGCTACATAAACAGGGCTC TGGCACAGATAGCCGAGGCTTGCTGTGTGGACCAGCGGAG AACCCTGGAGGTATTTAAAGAACTGTCTAAGATCAACCCCT CTGCGATTCTGAGCGCTATTTACAACAAACCCATTGCCGCA CGCTTCATGGGGGACGTCCTCGGTCTTGCCTCCTGTGTGAC AATTAACCAGACGAGCGTGAAGGTGCTGCGAGATATGAAC GTGAAGGAATCCCCTGGGCGGTGTTACAGTAGGCCTGTGG TGATTTTCAACTTCGCCAACTCTTCCTGTGTCCAATACGGTC AACTCGGTGAAGATAACGAGATTCTGCTGGGCAATCATCG GACAGAAGAATGCCAGTTGCCAAGCCTTAAAATCTTTATTG CAGGAAATTCAGCCTACGAGTACGTCGACTATCTGTTTAAA AGAATGATTGATCTGAGCAGCATTTCCACTGTGGAC	**266**

CMV gB ectodomain, V23 to P707 of SEQ ID NO:1 (Towne strain)	VSSSSTRGTSATHSHHSSHTTSAAHSRSGSVSQRVTSSQTVSH GVNETIYNTTLKYGDVVGVNTTKYPYRVCSMAQGTDLIRFER NIVCTSMKPINEDLDEGIMVVYKRNIVAHTFKVRVYQKVLTFR RSYAYIHTTYLLGSNTEYVAPPMWEIHHINSHSQCYSSYSRVIA GTVFVAYHRDSYENKTMQLMPDDYSNTHSTRYVTVKDQWH SRGSTWLYRETCNLNCMVTITTARSKYPYHFFATSTGDVVDIS PFYNGTNRNASYFGENADKFFIFPNYTIVSDFGRPNSALETHRL VAFLERADSVISWDIQDEKNVTCQLTFWEASERTIRSEAEDSY HFSSAKMTATFLSKKQEVNMSDSALDCVRDEAINKLQQIFNT SYNQTYEKYGNVSVFETTGGLVVFWQGIKQKSLVELERLANRS SLNLTHNRTKRSTDGNNATHLSNMESVHNLVYAQLQFTYDTL RGYINRALAQIAEAWCVDQRRTLEVFKELSKINPSAILSAIYNKP IAARFMGDVLGLASCVTINQTSVKVLRDMNVKESPGRCYSRP VVIFNFANSSYVQYGQLGEDNEILLGNHRTEECQLPSLKIFIAG NSAYEYVDYLFKRMIDLSSISTVDSMIALDIDPLENTDFRVLELY SQKELRSSNVFDLEEIMREFNSYKQRVKYVEDKVVDPLPP	**267**

*signal sequence M1..A22 (SEQ ID NO: 268) removed

Signal Sequence of wt HCMV gB (Towne)	MESRIWCLVVCVNLCIVCLGAA	**268**
GCN4 CC tri2 trimerization domain (Table 9)	KIEEILSKQYHIENEIARIKKLIG	**269**
	AAGATCGAGGAGATCCTGTCCAAGCAGTACCACATCGA GAACGAGATCGCCCGCATCAAGAAGCTGATCGGC	**270**
T4 fibritin foldon domain	GYIPEAPRDGQAYVRKDGEWVLLSTFL	**271**
GCN4 (Table 9)	RIKQIEDKIEEILSKQYHIENEIARIKKLIG	**272**
GCN4 (Table 9)	KIYHIENEIARIKKLIG	**273**
C-terminal fusion sequence (Table 9)	LSAIGGYIPEAPRDGQAYVRKDGEWVLLSTFL	**274**

Embodiments of the present invention are set out in the following numbered clauses:

C1. A polypeptide comprising at least one introduced amino acid mutation relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB), wherein the polypeptide comprises a conformation that is not an HCMV gB postfusion conformation.

C2. A polypeptide that binds to an HCMV gB prefusion-specific antibody.

C3. A polypeptide comprising at least one introduced amino acid mutation relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB), wherein the polypeptide is capable of binding to an HCMV gB prefusion-specific antibody.

C4. A polypeptide comprising at least one introduced amino acid mutation relative to the amino acid sequence of the wild-type HCMV glycoprotein B (gB), wherein the polypeptide is capable of binding to a bis(aryl)thiourea compound.

C5. The polypeptide according to clause C3, wherein the compound is N-{4-[({(1*S*)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl}carbamothioyl)amino]phenyl}-1,3-thiazole-4-carboxamide.

C6. The polypeptide according to clause C1, wherein said polypeptide is characterized by structure coordinates comprising a root mean square deviation (RMSD) of conserved residue backbone atoms when superimposed on backbone atoms described by structural coordinates of Table 1A.

C7. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the amino acid mutation comprises a cysteine substitution.

C8. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the amino acid mutation comprises a mutation that allows a disulfide bond to form.

C9. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the amino acid mutation comprises an electrostatic mutation.

C10. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the amino acid mutation comprises a phenylalanine substitution.

C11. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the amino acid mutation comprises a leucine substitution.

C12. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB polypeptide, wherein the mutation stabilizes prefusion conformation of the polypeptide, and wherein the polypeptide specifically binds to an HCMV gB prefusion-specific antibody.

C13. A polypeptide comprising a cysteine at any one of the amino acid positions listed in column (ii) of Table 2, as compared to SEQ ID NO: 1.

C14. A polypeptide comprising an amino acid substitution at any one of the amino acid positions listed in column (ii) of Table 2, as compared to SEQ ID NO: 1.

C15. A polypeptide comprising the mutations Q98C and I653C according to the numbering of SEQ ID NO: 1.

C16. A polypeptide comprising the mutations T100C and S269C according to the numbering of SEQ ID NO: 1.

C17. A polypeptide comprising the mutations D217C and F584C according to the numbering of SEQ ID NO: 1.

C18. A polypeptide comprising the mutations Y242C and K710C according to the numbering of SEQ ID NO: 1.

C19. A polypeptide comprising the mutations Y242C and D714C according to the numbering of SEQ ID NO: 1.

C20. A polypeptide comprising the mutations S367C and L499C according to the numbering of SEQ ID NO: 1.

C21. A polypeptide comprising the mutations T372C and W506C according to the numbering of SEQ ID NO: 1.

C22. A polypeptide comprising the mutations S550C and D652C according to the numbering of SEQ ID NO: 1.

C23. A polypeptide comprising the mutations T608C and D679C according to the numbering of SEQ ID NO: 1.

C24. A polypeptide comprising the mutations K695C and K724C according to the numbering of SEQ ID NO: 1.

C25. A polypeptide comprising an amino acid sequence that is at least about 90% identical to the amino acid sequence set forth in any one of SEQ ID NOs: 1-43, wherein the polypeptide comprises a mutation as compared to SEQ ID NO: 1.

C26. The polypeptide according to any one of clauses C1-C25, wherein the polypeptide does not comprise a mutation at any one of the following positions: R562, P577, S587, Y588, G592, G595, L601/H605, C610, L612, P613, Y625, Y627, F632, and K633.

C27. The polypeptide according to any one of clauses C1-C26, wherein the polypeptide does not comprise the cytoplasmic tail of HCMV gB.

C28. The polypeptide according to any one of clauses C1-C26, wherein the polypeptide does not comprise the transmembrane region.

C29. The polypeptide according to any one of clauses C1-C26, wherein the polypeptide comprises the cytoplasmic tail of HCMV gB and does not comprise the transmembrane region.

C30. The polypeptide according to any one of clauses C1-C29, wherein the polypeptide does not contain an insect cell pattern of glycosylation.

C31. The polypeptide according to any one of clauses C1-C30, wherein the polypeptide exhibits improved solubility or stability, as compared to a native gB in a postfusion conformation.

C32. The polypeptide according to any one of clauses C1-C31, wherein the polypeptide is immunogenic.

C33. A nucleic acid encoding the polypeptide according to any one of clauses C1-C32.

C34. The nucleic acid according to clause C33, wherein the nucleic acid comprises a self-replicating RNA molecule.

C35. The nucleic acid according to clause C33, wherein the nucleic acid comprises a modified RNA molecule.

C36. A composition comprising a nucleic acid according to any one of clauses C33-C35.

C37. A composition comprising the polypeptide according to any one of clauses C1-C32, and further comprising a CMV antigen.

C38. The composition according to any one of clauses C36-C37, further comprising any one of the following polypeptides: gO, gH, gL, pUL128, pUL130, pUL131, and any combination thereof.

C39. A composition comprising the polypeptide according to any one of clauses C1-C32, and a diluent.

C40. A composition comprising the polypeptide according to any one of clauses C1-C32, and an adjuvant.

C41. The composition according to any one of clauses C36-C40, wherein the composition is immunogenic.

C42. The composition according to any one of clauses C36-C41, for use in eliciting an immune response against cytomegalovirus.

C43. A method of eliciting an immune response in a mammal, the method comprising administering to the mammal an effective amount of the polypeptide according to any one of clauses C1-C32.

C44. A method for reducing cytomegalovirus viral shedding in a mammal, the method comprising administering to the mammal an effective amount of the polypeptide according to any one of clauses C1-C32.

C45. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB, wherein the polypeptide comprises an amino acid sequence having at least 95% identity to the amino acid sequence set forth in any one of SEQ ID NOs: 1-43.

C46. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB, wherein the polypeptide comprises an amino acid sequence having at least 95% identity to the amino acid sequence set forth in any one of SEQ ID NOs: 1-106.

C47. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB, wherein the polypeptide comprises an amino acid sequence having at least 95% identity to the amino acid sequence set forth in any one of SEQ ID NOs: 47-106.

C48. A polypeptide comprising an amino acid sequence having at least 95% identity to the sequence set forth in SEQ ID NO: 57.

C49. A composition comprising at least one polynucleotide encoding an HCMV polypeptide selected from any one of gH, gL, UL128, UL130, and UL131; a polynucleotide encoding HCMV gB or a fragment thereof; a polynucleotide encoding pp65 or a fragment thereof; and a pharmaceutically acceptable carrier or dilent.

C50. A composition comprising at least one polynucleotide comprising a sequence having at least 95% identity to a sequence selected from any one of SEQ ID NOS: 141-210; a polynucleotide encoding a polypeptide comprising an amino acid sequence having at least 95% identity to the amino acid sequence set forth in any one of SEQ ID NOs: 1-106; and a pharmaceutically acceptable carrier or dilent.

C51. A composition comprising at least one polynucleotide comprising a sequence having at least 95% identity to a sequence selected from any one of SEQ ID NOS: 224-254; a polynucleotide encoding a polypeptide comprising an amino acid sequence selected from any one of the amino acid sequences set forth in any one of SEQ ID NOs: 1-106; and a pharmaceutically acceptable carrier or dilent.

C52. A composition comprising at least one polypeptide comprising an amino acid sequence having at least 95% identity to an amino acid sequence selected from any one of SEQ ID NOS: 211-223; a polypeptide comprising an amino acid sequence having at least 95% identity to the amino acid sequence set forth in any one of SEQ ID NOs: 1-106; and a pharmaceutically acceptable carrier or dilent.

C53. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB, wherein the polypeptide comprises the amino acid

sequence set forth in any one of SEQ ID NOs: 1-43, wherein the polypeptide comprises a mutation as compared to SEQ ID NO: 1.

C54. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB, wherein the polypeptide comprises the amino acid sequence set forth in any one of SEQ ID NOs: 1-106, wherein the polypeptide comprises a mutation as compared to SEQ ID NO: 1.

C55. A polypeptide comprising at least one amino acid mutation relative to the amino acid sequence of the wild-type HCMV gB, wherein the polypeptide comprises the amino acid sequence set forth in any one of SEQ ID NOs: 47-106, wherein the polypeptide comprises a mutation as compared to SEQ ID NO: 1.

C56. A polypeptide comprising the sequence set forth in SEQ ID NO: 57.

C57. A composition comprising at least one polynucleotide encoding an HCMV polypeptide selected from any one of gH, gL, UL128, UL130, and UL131; a polynucleotide encoding HCMV gB or a fragment thereof; a polynucleotide encoding pp65 or a fragment thereof; and a pharmaceutically acceptable carrier or dilent.

C58. A composition comprising at least one polynucleotide comprising a sequence selected from any one of SEQ ID NOS: 141-210; a polynucleotide encoding a polypeptide comprising the amino acid sequence set forth in any one of SEQ ID NOs: 1-106; and a pharmaceutically acceptable carrier or dilent.

C59. A composition comprising at least one polynucleotide comprising a sequence selected from any one of SEQ ID NOS: 224-254; a polynucleotide encoding a polypeptide comprising the amino acid sequence set forth in any one of SEQ ID NOs: 1-106; and a pharmaceutically acceptable carrier or dilent.

C60. A composition comprising at least one polypeptide comprising a sequence selected from any one of SEQ ID NOS: 211-223; a polypeptide comprising the amino acid sequence set forth in any one of SEQ ID NOs: 1-106; and a pharmaceutically acceptable carrier or dilent.

C61. The composition according to any one of clause C49-C51 and C57-C59, wherein the polynucleotide is DNA.

C62. The composition according to any one of clause C49-C51 and C57-C59, wherein the polynucleotide is RNA.

C63. The composition according to any one of clause C49-C51 and C57-C59, wherein at least one polynucleotide comprises at least one chemical modification.

C64. The composition according to clause C61, wherein the chemical modification is selected from the group consisting of pseudouridine, N1-methylpseudouridine, N1-ethylpseudouridine, N1-ethylpseudouridine, 2-thiouridine, 4'- thiouridine, 5-methylcytosine, 2-thio-l -methyl- 1-deaza-pseudouri dine, 2-thio-l-methyl- pseudouridine, 2-thio-5-aza-uridine , 2-thio-dihydropseudouridine, 2-thio-dihydrouridine, 2- thio-pseudouridine, 4-methoxy-2-thio-pseudouridine, 4-methoxy-pseudouridine, 4-thio-l-methyl-pseudouridine, 4-thio-pseudouridine, 5-aza-uridine, dihydropseudouridine, 5-methoxyuridine and 2'-0-methyl uridine.

C65. The composition according to any one of clause C49-C51 and C57-C59, wherein the composition is formulated within a cationic lipid nanoparticle.

C66. A composition comprising at least one polynucleotide comprising a sequence selected from any one of SEQ ID NO: 153, SEQ ID NO: 156, SEQ ID NO: 155, SEQ ID NO: 157, SEQ ID NO: 210, SEQ ID NO: 152, and SEQ ID NO: 158; a polynucleotide encoding a polypeptide comprising the amino acid sequence set forth in any one of SEQ ID NOs: 1-106; and a pharmaceutically acceptable carrier or dilent.

C67. A composition comprising at least one polypeptide comprising a sequence selected from any one of SEQ ID NO: 211, SEQ ID NO: 213, SEQ ID NO: 214, SEQ ID NO: 215, SEQ ID NO: 216, and SEQ ID NO: 217; a polypeptide comprising the amino acid sequence set forth in any one of SEQ ID NOs: 1-106; and a pharmaceutically acceptable carrier or dilent.

C68. A polypeptide comprising an amino acid sequence set forth in any one of SEQ ID NOs: 1-106.

C69. The polypeptide according to clause C68, wherein the sequence comprises SEQ ID NO: 56.

C70. The polypeptide according to clause C68, wherein the sequence comprises SEQ ID NO: 57.

C71. The polypeptide according to clause C68, wherein the sequence comprises SEQ ID NO: 58.

C72. The polypeptide according to clause C68, wherein the sequence comprises SEQ ID NO: 75.

C73. A polynucleotide encoding a polypeptide comprising an amino acid sequence set forth in any one of SEQ ID NOs: 1-106.

C74. A composition comprising a polypeptide comprising the sequence set forth in any one of SEQ ID NOs:1-106; and a diluent.

C75. The composition according to clause C74, wherein the sequence does not comprise any one of SEQ ID NO: 59, SEQ ID NO: 75, SEQ ID NO: 76, SEQ ID NO: 71, SEQ ID NO: 52, SEQ ID NO: 96, and SEQ ID NO: 50.

C76. The composition according to clause C74, further comprising a polypeptide comprising any one sequence selected from SEQ ID NOS: 211-224.

C77. A composition comprising a polynucleotide encoding a polypeptide comprising the sequence selected from any one of SEQ ID NOs:1-106; and a diluent.

C78. The composition according to clause C77, further comprising a polynucleotide comprising a sequence selected from any one of SEQ ID NOS: 141-210.

C79. The composition according to clause C77, further comprising a polynucleotide comprising a sequence selected from any one of SEQ ID NOS: 224-254.

C80. A method of eliciting an immune response in a mammal, comprising administering an effective amount of a composition comprising a polypeptide comprising the sequence set forth in any one of SEQ ID NOs:1-106; and a diluent.

C81. A method of eliciting an immune response in a mammal, comprising administering an effective amount of a composition comprising a polynucleotide encoding a polypeptide comprising the sequence set forth in any one of SEQ ID NOs:1-106; and a diluent.

TABLE 1A

REMARK 3
REMARK 3 REFINEMENT.
REMARK 3 PROGRAM : PHENIX (dev_3092: phenix.real_space_refine)
REMARK 3 AUTHORS : Adams,Afonine,Bunkoczi,Burnley,Chen,Dar,Davis,
REMARK 3 : Draizen,Echols,Gildea,Gros,Grosse-Kunstleve,Headd,
REMARK 3 : Hintze,Hung,Ioerger,Liebschner,McCoy,McKee,Moriarty,
REMARK 3 : Oeffner,Poon,Read,Richardson,Richardson,Sacchettini,
REMARK 3 : Sauter,Sobolev,Storoni,Terwilliger,Williams,Zwart
REMARK 3
REMARK 3
REMARK 3 SCATTERING TABLE: N_GAUSSIAN
REMARK 3
REMARK 3 REFINEMENT TARGET: REAL-SPACE (WEIGHTED MAP SUM AT ATOM CENTERS)
REMARK 3
REMARK 3 MODEL TO MAP FIT.
REMARK 3 CC_mask : 0.7786
REMARK 3 CC_volume: 0.7566
REMARK 3 CC_peaks : 0.5466
REMARK 3

GEOMETRY RESTRAINTS LIBRARY: CDL v1.2
DEVIATIONS FROM IDEAL VALUES.
BOND : 0.004 0.033 17103
ANGLE : 0.769 10.302 23835
CHIRALITY : 0.056 0.568 2595
PLANARITY : 0.004 0.043 2907
DIHEDRAL : 11.547 179.989 9717
MIN NONBONDED DISTANCE : 1.763

MOLPROBITY STATISTICS.
ALL-ATOM CLASHSCORE : 7.96
RAMACHANDRAN PLOT:

OUTLIERS : 0.00 %
ALLOWED : 15.80 %
FAVORED : 84.20 %
ROTAMER OUTLIERS : 0.36 %
CBETA DEVIATIONS : 0
PEPTIDE PLANE:
CIS-PROLINE : 10.5263157895
CIS-GENERAL : 0.162337662338
TWISTED PROLINE : 0.0
TWISTED GENERAL : 0.162337662338
REMARK 3
HELIX 1 1 TRP A 174 ILE A 179 1 6
HELIX 2 2 ASP A 390 SER A 407 1 18
HELIX 3 3 LEU A 484 LYS A 522 1 39
HELIX 4 4 SER A 526 ILE A 532 1 7
HELIX 5 5 PHE A 661 TYR A 667 1 7
HELIX 6 6 ILE A 683 PRO A 704 1 22
HELIX 7 7 LYS A 710 LEU A 719 1 10
HELIX 8 8 VAL A 726 LYS A 749 1 24
HELIX 9 9 PHE A 752 TYR A 769 1 18
HELIX 10 1 TRP B 174 ILE B 179 1 6
HELIX 11 2 ASP B 390 SER B 407 1 18
HELIX 12 3 LEU B 484 LYS B 522 1 39
HELIX 13 4 SER B 526 ILE B 532 1 7
HELIX 14 5 PHE B 661 TYR B 667 1 7
HELIX 15 6 ILE B 683 PRO B 704 1 22
HELIX 16 7 LYS B 710 LEU B 719 1 10
HELIX 17 8 VAL B 726 LYS B 749 1 24
HELIX 18 9 PHE B 752 TYR B 769 1 18
HELIX 19 1 TRP C 174 ILE C 179 1 6
HELIX 20 2 ASP C 390 SER C 407 1 18
HELIX 21 3 LEU C 484 LYS C 522 1 39
HELIX 22 4 SER C 526 ILE C 532 1 7
HELIX 23 5 PHE C 661 TYR C 667 1 7

HELIX 24 6 ILE C 683 PRO C 704 1 22
HELIX 25 7 LYS C 710 LEU C 719 1 10
HELIX 26 8 VAL C 726 LYS C 749 1 24
HELIX 27 9 PHE C 752 TYR C 769 1 18
SHEET 1 1 1 LEU A 102 ILE A 103 0
SHEET 2 2 1 LEU A 121 LYS A 130 0
SHEET 3 3 1 HIS A 136 ALA A 154 0
SHEET 4 4 1 TYR A 160 VAL A 169 0
SHEET 5 5 1 TYR A 186 VAL A 192 0
SHEET 6 6 1 VAL A 197 TYR A 201 0
SHEET 7 7 1 LYS A 209 THR A 210 0
SHEET 8 8 1 ARG A 225 VAL A 227 0
SHEET 9 9 1 LEU A 241 SER A 259 0
SHEET 10 10 1 PHE A 266 THR A 268 0
SHEET 11 11 1 ASP A 272 VAL A 274 0
SHEET 12 12 1 PHE A 297 SER A 307 0
SHEET 13 13 1 ALA A 315 ARG A 327 0
SHEET 14 14 1 SER A 330 ASP A 335 0
SHEET 15 15 1 LEU A 346 GLU A 359 0
SHEET 16 16 1 TYR A 364 SER A 368 0
SHEET 17 17 1 ALA A 373 SER A 377 0
SHEET 18 18 1 GLU A 413 TYR A 415 0
SHEET 19 19 1 SER A 419 GLU A 422 0
SHEET 20 20 1 VAL A 428 LYS A 435 0
SHEET 21 21 1 ALA A 539 MET A 542 0
SHEET 22 22 1 VAL A 545 LEU A 548 0
SHEET 23 23 1 VAL A 559 LEU A 562 0
SHEET 24 24 1 VAL A 579 ASN A 583 0
SHEET 25 25 1 VAL A 590 GLY A 596 0
SHEET 26 26 1 GLU A 600 LEU A 602 0
SHEET 27 27 1 LEU A 616 ILE A 620 0
SHEET 28 28 1 ALA A 625 VAL A 629 0
SHEET 29 29 1 LEU A 632 ILE A 637 0
SHEET 30 1 1 LEU B 102 ILE B 103 0

SHEET 31 2 1 LEU B 121 LYS B 130 0
SHEET 32 3 1 HIS B 136 ALA B 154 0
SHEET 33 4 1 TYR B 160 VAL B 169 0
SHEET 34 5 1 TYR B 186 VAL B 192 0
SHEET 35 6 1 VAL B 197 TYR B 201 0
SHEET 36 7 1 LYS B 209 THR B 210 0
SHEET 37 8 1 ARG B 225 VAL B 227 0
SHEET 38 9 1 LEU B 241 SER B 259 0
SHEET 39 10 1 PHE B 266 THR B 268 0
SHEET 40 11 1 ASP B 272 VAL B 274 0
SHEET 41 12 1 PHE B 297 SER B 307 0
SHEET 42 13 1 ALA B 315 ARG B 327 0
SHEET 43 14 1 SER B 330 ASP B 335 0
SHEET 44 15 1 LEU B 346 GLU B 359 0
SHEET 45 16 1 TYR B 364 SER B 368 0
SHEET 46 17 1 ALA B 373 SER B 377 0
SHEET 47 18 1 GLU B 413 TYR B 415 0
SHEET 48 19 1 SER B 419 GLU B 422 0
SHEET 49 20 1 VAL B 428 LYS B 435 0
SHEET 50 21 1 ALA B 539 MET B 542 0
SHEET 51 22 1 VAL B 545 LEU B 548 0
SHEET 52 23 1 VAL B 559 LEU B 562 0
SHEET 53 24 1 VAL B 579 ASN B 583 0
SHEET 54 25 1 VAL B 590 GLY B 596 0
SHEET 55 26 1 GLU B 600 LEU B 602 0
SHEET 56 27 1 LEU B 616 ILE B 620 0
SHEET 57 28 1 ALA B 625 VAL B 629 0
SHEET 58 29 1 LEU B 632 ILE B 637 0
SHEET 59 1 1 LEU C 102 ILE C 103 0
SHEET 60 2 1 LEU C 121 LYS C 130 0
SHEET 61 3 1 HIS C 136 ALA C 154 0
SHEET 62 4 1 TYR C 160 VAL C 169 0
SHEET 63 5 1 TYR C 186 VAL C 192 0
SHEET 64 6 1 VAL C 197 TYR C 201 0

SHEET 65 7 1 LYS C 209 THR C 210 0
SHEET 66 8 1 ARG C 225 VAL C 227 0
SHEET 67 9 1 LEU C 241 SER C 259 0
SHEET 68 10 1 PHE C 266 THR C 268 0
SHEET 69 11 1 ASP C 272 VAL C 274 0
SHEET 70 12 1 PHE C 297 SER C 307 0
SHEET 71 13 1 ALA C 315 ARG C 327 0
SHEET 72 14 1 SER C 330 ASP C 335 0
SHEET 73 15 1 LEU C 346 GLU C 359 0
SHEET 74 16 1 TYR C 364 SER C 368 0
SHEET 75 17 1 ALA C 373 SER C 377 0
SHEET 76 18 1 GLU C 413 TYR C 415 0
SHEET 77 19 1 SER C 419 GLU C 422 0
SHEET 78 20 1 VAL C 428 LYS C 435 0
SHEET 79 21 1 ALA C 539 MET C 542 0
SHEET 80 22 1 VAL C 545 LEU C 548 0
SHEET 81 23 1 VAL C 559 LEU C 562 0
SHEET 82 24 1 VAL C 579 ASN C 583 0
SHEET 83 25 1 VAL C 590 GLY C 596 0
SHEET 84 26 1 GLU C 600 LEU C 602 0
SHEET 85 27 1 LEU C 616 ILE C 620 0
SHEET 86 28 1 ALA C 625 VAL C 629 0
SHEET 87 29 1 LEU C 632 ILE C 637 0
LINK C1 NAG A1003 O3 NAG A1002
LINK C1 NAG A1008 O3 NAG A1007
LINK C1 NAG B1003 O3 NAG B1002
LINK C1 NAG B1008 O3 NAG B1007
LINK C1 NAG C1003 O3 NAG C1002
LINK C1 NAG C1008 O3 NAG C1007
LINK C1 NAG A1002 O4 NAG A1001
LINK C1 NAG B1002 O4 NAG B1001
LINK C1 NAG C1002 O4 NAG C1001
LINK C1 NAG A1001 ND2 ASN A 208
LINK C1 NAG A1004 ND2 ASN A 281

LINK C1 NAG A1005 ND2 ASN A 286
LINK C1 NAG A1007 ND2 ASN A 383
LINK C1 NAG A1009 ND2 ASN A 417
LINK C1 NAG A1010 ND2 ASN A 555
LINK C1 NAG A1011 ND2 ASN A 586
LINK C1 NAG A1012 ND2 ASN A 341
LINK C1 NAG A1013 ND2 ASN A 405
LINK C1 NAG A1014 ND2 ASN A 118
LINK C1 NAG A1015 ND2 ASN A 338
LINK C1 NAG B1001 ND2 ASN B 208
LINK C1 NAG B1004 ND2 ASN B 281
LINK C1 NAG B1005 ND2 ASN B 286
LINK C1 NAG B1007 ND2 ASN B 383
LINK C1 NAG B1009 ND2 ASN B 417
LINK C1 NAG B1010 ND2 ASN B 555
LINK C1 NAG B1011 ND2 ASN B 586
LINK C1 NAG B1012 ND2 ASN B 341
LINK C1 NAG B1013 ND2 ASN B 405
LINK C1 NAG B1014 ND2 ASN B 118
LINK C1 NAG B1015 ND2 ASN B 338
LINK C1 NAG C1001 ND2 ASN C 208
LINK C1 NAG C1004 ND2 ASN C 281
LINK C1 NAG C1005 ND2 ASN C 286
LINK C1 NAG C1007 ND2 ASN C 383
LINK C1 NAG C1009 ND2 ASN C 417
LINK C1 NAG C1010 ND2 ASN C 555
LINK C1 NAG C1011 ND2 ASN C 586
LINK C1 NAG C1012 ND2 ASN C 341
LINK C1 NAG C1013 ND2 ASN C 405
LINK C1 NAG C1014 ND2 ASN C 118
LINK C1 NAG C1015 ND2 ASN C 338
SSBOND 1 CYS A 94 CYS A 551
SSBOND 2 CYS A 111 CYS A 507
SSBOND 3 CYS A 185 CYS A 250

```
SSBOND   4 CYS A  344    CYS A  391
SSBOND   5 CYS A  574    CYS A  611
SSBOND   6 CYS B   94    CYS B  551
SSBOND   7 CYS B  111    CYS B  507
SSBOND   8 CYS B  185    CYS B  250
SSBOND   9 CYS B  344    CYS B  391
SSBOND  10 CYS B  574    CYS B  611
SSBOND  11 CYS C   94    CYS C  551
SSBOND  12 CYS C  111    CYS C  507
SSBOND  13 CYS C  185    CYS C  250
SSBOND  14 CYS C  344    CYS C  391
SSBOND  15 CYS C  574    CYS C  611
CRYST1  385.280  385.280  385.280  90.00  90.00  90.00 P 1
SCALE1      0.002596  0.000000  0.000000        0.00000
SCALE2      0.000000  0.002596  0.000000        0.00000
SCALE3      0.000000  0.000000  0.002596        0.00000
ATOM      1  N   THR A  87     183.022 162.064 195.194  1.00 73.34           N
ATOM      2  CA  THR A  87     183.305 163.436 195.596  1.00 73.34           C
ATOM      3  C   THR A  87     184.805 163.704 195.604  1.00 73.34           C
ATOM      4  O   THR A  87     185.591 162.880 196.069  1.00 73.34           O
ATOM      5  CB  THR A  87     182.731 163.746 196.991  1.00 73.34           C
ATOM      6  OG1 THR A  87     181.312 163.555 196.981  1.00 73.34           O
ATOM      7  CG2 THR A  87     183.040 165.181 197.387  1.00 73.34           C
ATOM      8  N   LYS A  88     185.196 164.865 195.080  1.00 65.97           N
ATOM      9  CA  LYS A  88     186.590 165.285 195.056  1.00 65.97           C
ATOM     10  C   LYS A  88     186.914 166.277 196.167  1.00 65.97           C
ATOM     11  O   LYS A  88     187.902 167.011 196.066  1.00 65.97           O
ATOM     12  CB  LYS A  88     186.937 165.888 193.694  1.00 65.97           C
ATOM     13  CG  LYS A  88     186.203 167.181 193.383  1.00 65.97           C
ATOM     14  CD  LYS A  88     186.561 167.697 191.999  1.00 65.97           C
ATOM     15  CE  LYS A  88     185.846 169.001 191.690  1.00 65.97           C
ATOM     16  NZ  LYS A  88     186.189 169.509 190.334  1.00 65.97           N
ATOM     17  N   TYR A  89     186.103 166.313 197.222  1.00 56.58           N
ATOM     18  CA  TYR A  89     186.300 167.222 198.350  1.00 56.58           C
```

ATOM 19 C TYR A 89 186.288 166.411 199.638 1.00 56.58 C
ATOM 20 O TYR A 89 185.298 166.416 200.380 1.00 56.58 O
ATOM 21 CB TYR A 89 185.229 168.311 198.376 1.00 56.58 C
ATOM 22 CG TYR A 89 185.302 169.265 197.210 1.00 56.58 C
ATOM 23 CD1 TYR A 89 186.228 170.297 197.192 1.00 56.58 C
ATOM 24 CD2 TYR A 89 184.443 169.138 196.129 1.00 56.58 C
ATOM 25 CE1 TYR A 89 186.300 171.173 196.130 1.00 56.58 C
ATOM 26 CE2 TYR A 89 184.507 170.009 195.061 1.00 56.58 C
ATOM 27 CZ TYR A 89 185.437 171.025 195.068 1.00 56.58 C
ATOM 28 OH TYR A 89 185.505 171.897 194.007 1.00 56.58 O
ATOM 29 N PRO A 90 187.370 165.699 199.932 1.00 48.30 N
ATOM 30 CA PRO A 90 187.438 164.942 201.183 1.00 48.30 C
ATOM 31 C PRO A 90 187.843 165.830 202.348 1.00 48.30 C
ATOM 32 O PRO A 90 188.481 166.871 202.182 1.00 48.30 O
ATOM 33 CB PRO A 90 188.516 163.893 200.897 1.00 48.30 C
ATOM 34 CG PRO A 90 189.408 164.563 199.915 1.00 48.30 C
ATOM 35 CD PRO A 90 188.521 165.424 199.057 1.00 48.30 C
ATOM 36 N TYR A 91 187.448 165.397 203.542 1.00 40.22 N
ATOM 37 CA TYR A 91 187.784 166.124 204.760 1.00 40.22 C
ATOM 38 C TYR A 91 189.296 166.225 204.890 1.00 40.22 C
ATOM 39 O TYR A 91 190.000 165.215 204.812 1.00 40.22 O
ATOM 40 CB TYR A 91 187.197 165.415 205.981 1.00 40.22 C
ATOM 41 CG TYR A 91 185.687 165.327 206.010 1.00 40.22 C
ATOM 42 CD1 TYR A 91 184.905 166.099 205.169 1.00 40.22 C
ATOM 43 CD2 TYR A 91 185.044 164.460 206.880 1.00 40.22 C
ATOM 44 CE1 TYR A 91 183.531 166.008 205.189 1.00 40.22 C
ATOM 45 CE2 TYR A 91 183.669 164.367 206.908 1.00 40.22 C
ATOM 46 CZ TYR A 91 182.919 165.147 206.060 1.00 40.22 C
ATOM 47 OH TYR A 91 181.548 165.068 206.074 1.00 40.22 O
ATOM 48 N ARG A 92 189.803 167.438 205.087 1.00 37.78 N
ATOM 49 CA ARG A 92 191.241 167.647 205.120 1.00 37.78 C
ATOM 50 C ARG A 92 191.578 168.770 206.091 1.00 37.78 C
ATOM 51 O ARG A 92 190.698 169.460 206.610 1.00 37.78 O
ATOM 52 CB ARG A 92 191.777 167.926 203.717 1.00 37.78 C

```
ATOM   53  CG  ARG A  92     191.252 169.189 203.094  1.00 37.78           C
ATOM   54  CD  ARG A  92     191.640 169.237 201.636  1.00 37.78           C
ATOM   55  NE  ARG A  92     191.302 170.514 201.022  1.00 37.78           N
ATOM   56  CZ  ARG A  92     190.112 170.802 200.509  1.00 37.78           C
ATOM   57  NH1 ARG A  92     189.140 169.904 200.544  1.00 37.78           N
ATOM   58  NH2 ARG A  92     189.895 171.990 199.966  1.00 37.78           N
ATOM   59  N   VAL A  93     192.875 168.939 206.340  1.00 32.43           N
ATOM   60  CA  VAL A  93     193.369 169.752 207.446  1.00 32.43           C
ATOM   61  C   VAL A  93     194.285 170.854 206.920  1.00 32.43           C
ATOM   62  O   VAL A  93     195.354 171.111 207.483  1.00 32.43           O
ATOM   63  CB  VAL A  93     194.072 168.881 208.503  1.00 32.43           C
ATOM   64  CG1 VAL A  93     194.368 169.686 209.763  1.00 32.43           C
ATOM   65  CG2 VAL A  93     193.224 167.678 208.833  1.00 32.43           C
ATOM   66  N   CYS A  94     193.898 171.496 205.817  1.00 41.32           N
ATOM   67  CA  CYS A  94     194.795 172.415 205.122  1.00 41.32           C
ATOM   68  C   CYS A  94     195.091 173.643 205.972  1.00 41.32           C
ATOM   69  O   CYS A  94     194.589 174.736 205.692  1.00 41.32           O
ATOM   70  CB  CYS A  94     194.175 172.879 203.803  1.00 41.32           C
ATOM   71  SG  CYS A  94     193.803 171.599 202.601  1.00 41.32           S
ATOM   72  N   SER A  95     195.897 173.474 207.008  1.00 43.21           N
ATOM   73  CA  SER A  95     196.237 174.561 207.918  1.00 43.21           C
ATOM   74  C   SER A  95     197.730 174.703 208.162  1.00 43.21           C
ATOM   75  O   SER A  95     198.213 175.824 208.331  1.00 43.21           O
ATOM   76  CB  SER A  95     195.519 174.361 209.260  1.00 43.21           C
ATOM   77  OG  SER A  95     195.881 175.371 210.184  1.00 43.21           O
ATOM   78  N   MET A  96     198.470 173.601 208.195  1.00 44.84           N
ATOM   79  CA  MET A  96     199.854 173.603 208.644  1.00 44.84           C
ATOM   80  C   MET A  96     200.801 173.435 207.465  1.00 44.84           C
ATOM   81  O   MET A  96     200.516 172.689 206.525  1.00 44.84           O
ATOM   82  CB  MET A  96     200.080 172.489 209.665  1.00 44.84           C
ATOM   83  CG  MET A  96     199.896 171.095 209.098  1.00 44.84           C
ATOM   84  SD  MET A  96     199.923 169.814 210.365  1.00 44.84           S
ATOM   85  CE  MET A  96     198.306 170.020 211.106  1.00 44.84           C
ATOM   86  N   ALA A  97     201.933 174.132 207.525  1.00 42.33           N
```

ATOM 87 CA ALA A 97 202.926 174.065 206.465 1.00 42.33 C
ATOM 88 C ALA A 97 204.274 174.491 207.024 1.00 42.33 C
ATOM 89 O ALA A 97 204.362 175.120 208.080 1.00 42.33 O
ATOM 90 CB ALA A 97 202.540 174.941 205.271 1.00 42.33 C
ATOM 91 N GLN A 98 205.319 174.148 206.282 1.00 45.39 N
ATOM 92 CA GLN A 98 206.710 174.310 206.688 1.00 45.39 C
ATOM 93 C GLN A 98 207.544 174.356 205.412 1.00 45.39 C
ATOM 94 O GLN A 98 207.021 174.655 204.333 1.00 45.39 O
ATOM 95 CB GLN A 98 207.136 173.195 207.659 1.00 45.39 C
ATOM 96 CG GLN A 98 206.530 173.315 209.043 1.00 45.39 C
ATOM 97 CD GLN A 98 206.918 172.172 209.950 1.00 45.39 C
ATOM 98 OE1 GLN A 98 207.539 171.205 209.514 1.00 45.39 O
ATOM 99 NE2 GLN A 98 206.566 172.283 211.225 1.00 45.39 N
ATOM 100 N GLY A 99 208.837 174.081 205.530 1.00 46.28 N
ATOM 101 CA GLY A 99 209.693 174.138 204.365 1.00 46.28 C
ATOM 102 C GLY A 99 209.459 172.972 203.425 1.00 46.28 C
ATOM 103 O GLY A 99 208.311 172.594 203.176 1.00 46.28 O
ATOM 104 N THR A 100 210.537 172.404 202.891 1.00 42.54 N
ATOM 105 CA THR A 100 210.597 171.424 201.813 1.00 42.54 C
ATOM 106 C THR A 100 210.409 172.083 200.449 1.00 42.54 C
ATOM 107 O THR A 100 210.626 171.423 199.433 1.00 42.54 O
ATOM 108 CB THR A 100 209.558 170.292 201.943 1.00 42.54 C
ATOM 109 OG1 THR A 100 208.248 170.824 201.720 1.00 42.54 O
ATOM 110 CG2 THR A 100 209.595 169.680 203.327 1.00 42.54 C
ATOM 111 N ASP A 101 210.026 173.360 200.387 1.00 41.94 N
ATOM 112 CA ASP A 101 209.945 174.113 199.141 1.00 41.94 C
ATOM 113 C ASP A 101 209.545 175.557 199.420 1.00 41.94 C
ATOM 114 O ASP A 101 208.847 175.831 200.400 1.00 41.94 O
ATOM 115 CB ASP A 101 208.967 173.449 198.173 1.00 41.94 C
ATOM 116 CG ASP A 101 207.615 173.210 198.794 1.00 41.94 C
ATOM 117 OD1 ASP A 101 207.451 173.516 199.993 1.00 41.94 O
ATOM 118 OD2 ASP A 101 206.721 172.701 198.089 1.00 41.94 O
ATOM 119 N LEU A 102 209.966 176.483 198.564 1.00 40.67 N
ATOM 120 CA LEU A 102 209.739 177.899 198.808 1.00 40.67 C

ATOM 121 C LEU A 102 209.415 178.587 197.491 1.00 40.67 C
ATOM 122 O LEU A 102 209.878 178.165 196.429 1.00 40.67 O
ATOM 123 CB LEU A 102 210.962 178.563 199.451 1.00 40.67 C
ATOM 124 CG LEU A 102 211.281 178.345 200.932 1.00 40.67 C
ATOM 125 CD1 LEU A 102 211.852 176.967 201.172 1.00 40.67 C
ATOM 126 CD2 LEU A 102 212.256 179.403 201.412 1.00 40.67 C
ATOM 127 N ILE A 103 208.615 179.652 197.566 1.00 42.52 N
ATOM 128 CA ILE A 103 208.299 180.454 196.387 1.00 42.52 C
ATOM 129 C ILE A 103 208.127 181.920 196.765 1.00 42.52 C
ATOM 130 O ILE A 103 207.306 182.266 197.620 1.00 42.52 O
ATOM 131 CB ILE A 103 207.042 179.933 195.662 1.00 42.52 C
ATOM 132 CG1 ILE A 103 205.828 179.942 196.587 1.00 42.52 C
ATOM 133 CG2 ILE A 103 207.269 178.546 195.083 1.00 42.52 C
ATOM 134 CD1 ILE A 103 204.525 179.696 195.863 1.00 42.52 C
ATOM 135 N ARG A 104 208.907 182.788 196.129 1.00 55.38 N
ATOM 136 CA ARG A 104 208.772 184.231 196.260 1.00 55.38 C
ATOM 137 C ARG A 104 207.847 184.754 195.162 1.00 55.38 C
ATOM 138 O ARG A 104 207.128 183.990 194.513 1.00 55.38 O
ATOM 139 CB ARG A 104 210.141 184.897 196.208 1.00 55.38 C
ATOM 140 CG ARG A 104 210.837 184.689 194.888 1.00 55.38 C
ATOM 141 CD ARG A 104 212.175 185.384 194.839 1.00 55.38 C
ATOM 142 NE ARG A 104 212.838 185.138 193.566 1.00 55.38 N
ATOM 143 CZ ARG A 104 213.989 185.690 193.207 1.00 55.38 C
ATOM 144 NH1 ARG A 104 214.599 186.536 194.022 1.00 55.38 N
ATOM 145 NH2 ARG A 104 214.523 185.407 192.029 1.00 55.38 N
ATOM 146 N PHE A 105 207.845 186.073 194.944 1.00 61.78 N
ATOM 147 CA PHE A 105 206.981 186.681 193.941 1.00 61.78 C
ATOM 148 C PHE A 105 207.699 187.528 192.895 1.00 61.78 C
ATOM 149 O PHE A 105 207.109 187.780 191.839 1.00 61.78 O
ATOM 150 CB PHE A 105 205.899 187.538 194.613 1.00 61.78 C
ATOM 151 CG PHE A 105 204.849 186.735 195.324 1.00 61.78 C
ATOM 152 CD1 PHE A 105 203.789 186.185 194.624 1.00 61.78 C
ATOM 153 CD2 PHE A 105 204.925 186.524 196.689 1.00 61.78 C
ATOM 154 CE1 PHE A 105 202.822 185.447 195.273 1.00 61.78 C

ATOM 155 CE2 PHE A 105 203.960 185.786 197.344 1.00 61.78 C
ATOM 156 CZ PHE A 105 202.907 185.246 196.634 1.00 61.78 C
ATOM 157 N GLU A 106 208.936 187.968 193.144 1.00 76.47 N
ATOM 158 CA GLU A 106 209.783 188.575 192.111 1.00 76.47 C
ATOM 159 C GLU A 106 209.134 189.829 191.514 1.00 76.47 C
ATOM 160 O GLU A 106 208.664 189.835 190.375 1.00 76.47 O
ATOM 161 CB GLU A 106 210.113 187.554 191.017 1.00 76.47 C
ATOM 162 CG GLU A 106 211.032 188.084 189.933 1.00 76.47 C
ATOM 163 CD GLU A 106 212.395 188.462 190.469 1.00 76.47 C
ATOM 164 OE1 GLU A 106 212.797 187.909 191.513 1.00 76.47 O
ATOM 165 OE2 GLU A 106 213.064 189.313 189.847 1.00 76.47 O
ATOM 166 N ARG A 107 209.097 190.877 192.347 1.00 87.65 N
ATOM 167 CA ARG A 107 208.391 192.127 192.063 1.00 87.65 C
ATOM 168 C ARG A 107 208.548 192.637 190.629 1.00 87.65 C
ATOM 169 O ARG A 107 207.563 192.759 189.893 1.00 87.65 O
ATOM 170 CB ARG A 107 208.867 193.220 193.030 1.00 87.65 C
ATOM 171 CG ARG A 107 208.352 193.122 194.458 1.00 87.65 C
ATOM 172 CD ARG A 107 209.321 192.376 195.358 1.00 87.65 C
ATOM 173 NE ARG A 107 208.972 192.524 196.769 1.00 87.65 N
ATOM 174 CZ ARG A 107 208.284 191.631 197.473 1.00 87.65 C
ATOM 175 NH1 ARG A 107 208.007 191.857 198.749 1.00 87.65 N
ATOM 176 NH2 ARG A 107 207.874 190.507 196.898 1.00 87.65 N
ATOM 177 N ASN A 108 209.777 192.931 190.209 1.00104.17 N
ATOM 178 CA ASN A 108 209.992 193.635 188.948 1.00104.17 C
ATOM 179 C ASN A 108 209.913 192.681 187.757 1.00104.17 C
ATOM 180 O ASN A 108 210.726 191.761 187.622 1.00104.17 O
ATOM 181 CB ASN A 108 211.326 194.383 188.967 1.00104.17 C
ATOM 182 CG ASN A 108 212.500 193.493 189.322 1.00104.17 C
ATOM 183 OD1 ASN A 108 212.340 192.304 189.593 1.00104.17 O
ATOM 184 ND2 ASN A 108 213.697 194.066 189.299 1.00104.17 N
ATOM 185 N ILE A 109 208.925 192.912 186.893 1.00111.55 N
ATOM 186 CA ILE A 109 208.701 192.129 185.682 1.00111.55 C
ATOM 187 C ILE A 109 208.735 193.086 184.495 1.00111.55 C
ATOM 188 O ILE A 109 207.919 192.972 183.573 1.00111.55 O

ATOM 189 CB ILE A 109 207.374 191.350 185.747 1.00111.55 C
ATOM 190 CG1 ILE A 109 207.296 190.556 187.047 1.00111.55 C
ATOM 191 CG2 ILE A 109 207.263 190.358 184.593 1.00111.55 C
ATOM 192 CD1 ILE A 109 208.398 189.536 187.200 1.00111.55 C
ATOM 193 N VAL A 110 209.638 194.070 184.552 1.00124.50 N
ATOM 194 CA VAL A 110 209.718 195.191 183.613 1.00124.50 C
ATOM 195 C VAL A 110 209.615 194.742 182.160 1.00124.50 C
ATOM 196 O VAL A 110 210.365 193.871 181.704 1.00124.50 O
ATOM 197 CB VAL A 110 211.015 195.993 183.832 1.00124.50 C
ATOM 198 CG1 VAL A 110 211.030 196.604 185.223 1.00124.50 C
ATOM 199 CG2 VAL A 110 212.237 195.108 183.622 1.00124.50 C
ATOM 200 N CYS A 111 208.675 195.337 181.431 1.00128.31 N
ATOM 201 CA CYS A 111 208.356 194.943 180.070 1.00128.31 C
ATOM 202 C CYS A 111 209.149 195.782 179.073 1.00128.31 C
ATOM 203 O CYS A 111 209.786 196.779 179.422 1.00128.31 O
ATOM 204 CB CYS A 111 206.855 195.088 179.819 1.00128.31 C
ATOM 205 SG CYS A 111 205.824 194.095 180.924 1.00128.31 S
ATOM 206 N THR A 112 209.101 195.369 177.810 1.00137.95 N
ATOM 207 CA THR A 112 209.823 196.046 176.742 1.00137.95 C
ATOM 208 C THR A 112 208.880 196.310 175.579 1.00137.95 C
ATOM 209 O THR A 112 208.140 195.416 175.156 1.00137.95 O
ATOM 210 CB THR A 112 211.032 195.223 176.274 1.00137.95 C
ATOM 211 OG1 THR A 112 211.767 195.964 175.291 1.00137.95 O
ATOM 212 CG2 THR A 112 210.591 193.889 175.685 1.00137.95 C
ATOM 213 N SER A 113 208.898 197.540 175.079 1.00136.24 N
ATOM 214 CA SER A 113 208.144 197.898 173.890 1.00136.24 C
ATOM 215 C SER A 113 209.009 197.629 172.660 1.00136.24 C
ATOM 216 O SER A 113 210.067 197.000 172.743 1.00136.24 O
ATOM 217 CB SER A 113 207.681 199.350 173.974 1.00136.24 C
ATOM 218 OG SER A 113 206.772 199.532 175.045 1.00136.24 O
ATOM 219 N MET A 114 208.570 198.104 171.502 1.00129.10 N
ATOM 220 CA MET A 114 209.253 197.854 170.242 1.00129.10 C
ATOM 221 C MET A 114 209.385 199.167 169.470 1.00129.10 C
ATOM 222 O MET A 114 208.786 200.186 169.824 1.00129.10 O

ATOM 223 CB MET A 114 208.494 196.796 169.433 1.00129.10 C
ATOM 224 CG MET A 114 209.213 196.273 168.200 1.00129.10 C
ATOM 225 SD MET A 114 208.210 195.111 167.262 1.00129.10 S
ATOM 226 CE MET A 114 207.022 196.231 166.527 1.00129.10 C
ATOM 227 N LYS A 115 210.178 199.135 168.403 1.00131.31 N
ATOM 228 CA LYS A 115 210.332 200.281 167.520 1.00131.31 C
ATOM 229 C LYS A 115 209.617 199.992 166.202 1.00131.31 C
ATOM 230 O LYS A 115 210.234 199.525 165.240 1.00131.31 O
ATOM 231 CB LYS A 115 211.824 200.613 167.342 1.00131.31 C
ATOM 232 CG LYS A 115 212.731 199.508 166.771 1.00131.31 C
ATOM 233 CD LYS A 115 213.073 199.726 165.296 1.00131.31 C
ATOM 234 CE LYS A 115 214.037 198.681 164.759 1.00131.31 C
ATOM 235 NZ LYS A 115 214.317 198.890 163.308 1.00131.31 N
ATOM 236 N PRO A 116 208.302 200.212 166.123 1.00130.15 N
ATOM 237 CA PRO A 116 207.623 199.981 164.844 1.00130.15 C
ATOM 238 C PRO A 116 207.996 201.074 163.864 1.00130.15 C
ATOM 239 O PRO A 116 207.422 202.169 163.881 1.00130.15 O
ATOM 240 CB PRO A 116 206.138 200.029 165.219 1.00130.15 C
ATOM 241 CG PRO A 116 206.098 200.918 166.416 1.00130.15 C
ATOM 242 CD PRO A 116 207.371 200.660 167.174 1.00130.15 C
ATOM 243 N ILE A 117 208.964 200.776 163.003 1.00134.54 N
ATOM 244 CA ILE A 117 209.476 201.758 162.059 1.00134.54 C
ATOM 245 C ILE A 117 210.110 201.052 160.863 1.00134.54 C
ATOM 246 O ILE A 117 211.080 200.300 161.024 1.00134.54 O
ATOM 247 CB ILE A 117 210.466 202.697 162.780 1.00134.54 C
ATOM 248 CG1 ILE A 117 210.900 203.857 161.887 1.00134.54 C
ATOM 249 CG2 ILE A 117 211.661 201.933 163.340 1.00134.54 C
ATOM 250 CD1 ILE A 117 211.652 204.938 162.631 1.00134.54 C
ATOM 251 N ASN A 118 209.569 201.285 159.659 1.00142.40 N
ATOM 252 CA ASN A 118 210.235 200.929 158.398 1.00142.40 C
ATOM 253 C ASN A 118 210.638 199.452 158.348 1.00142.40 C
ATOM 254 O ASN A 118 211.665 199.085 157.773 1.00142.40 O
ATOM 255 CB ASN A 118 211.446 201.842 158.192 1.00142.40 C
ATOM 256 CG ASN A 118 211.048 203.296 157.999 1.00142.40 C

ATOM 257 OD1 ASN A 118 210.835 204.006 158.979 1.00142.40 O
ATOM 258 ND2 ASN A 118 211.000 203.773 156.755 1.00142.40 N
ATOM 259 N GLU A 119 209.824 198.596 158.969 1.00123.74 N
ATOM 260 CA GLU A 119 210.201 197.205 159.184 1.00123.74 C
ATOM 261 C GLU A 119 209.066 196.275 158.777 1.00123.74 C
ATOM 262 O GLU A 119 207.896 196.664 158.733 1.00123.74 O
ATOM 263 CB GLU A 119 210.572 196.936 160.650 1.00123.74 C
ATOM 264 CG GLU A 119 209.390 197.005 161.612 1.00123.74 C
ATOM 265 CD GLU A 119 209.790 196.789 163.062 1.00123.74 C
ATOM 266 OE1 GLU A 119 210.998 196.621 163.332 1.00123.74 O
ATOM 267 OE2 GLU A 119 208.894 196.787 163.933 1.00123.74 O
ATOM 268 N ASP A 120 209.438 195.028 158.491 1.00108.02 N
ATOM 269 CA ASP A 120 208.514 193.936 158.218 1.00108.02 C
ATOM 270 C ASP A 120 208.755 192.822 159.234 1.00108.02 C
ATOM 271 O ASP A 120 209.507 192.988 160.199 1.00108.02 O
ATOM 272 CB ASP A 120 208.654 193.432 156.774 1.00108.02 C
ATOM 273 CG ASP A 120 210.060 192.967 156.446 1.00108.02 C
ATOM 274 OD1 ASP A 120 210.960 193.105 157.301 1.00108.02 O
ATOM 275 OD2 ASP A 120 210.265 192.459 155.324 1.00108.02 O
ATOM 276 N LEU A 121 208.115 191.674 159.020 1.00 94.90 N
ATOM 277 CA LEU A 121 208.103 190.635 160.042 1.00 94.90 C
ATOM 278 C LEU A 121 207.711 189.300 159.421 1.00 94.90 C
ATOM 279 O LEU A 121 207.075 189.246 158.365 1.00 94.90 O
ATOM 280 CB LEU A 121 207.158 191.013 161.189 1.00 94.90 C
ATOM 281 CG LEU A 121 205.649 191.025 160.928 1.00 94.90 C
ATOM 282 CD1 LEU A 121 204.890 191.120 162.237 1.00 94.90 C
ATOM 283 CD2 LEU A 121 205.249 192.169 160.009 1.00 94.90 C
ATOM 284 N ASP A 122 208.104 188.221 160.099 1.00 95.78 N
ATOM 285 CA ASP A 122 207.905 186.847 159.660 1.00 95.78 C
ATOM 286 C ASP A 122 206.901 186.140 160.570 1.00 95.78 C
ATOM 287 O ASP A 122 206.271 186.755 161.437 1.00 95.78 O
ATOM 288 CB ASP A 122 209.244 186.105 159.625 1.00 95.78 C
ATOM 289 CG ASP A 122 210.161 186.605 158.528 1.00 95.78 C
ATOM 290 OD1 ASP A 122 209.649 187.091 157.499 1.00 95.78 O

ATOM 291 OD2 ASP A 122 211.395 186.505 158.692 1.00 95.78 O
ATOM 292 N GLU A 123 206.749 184.832 160.366 1.00102.67 N
ATOM 293 CA GLU A 123 205.846 184.029 161.182 1.00102.67 C
ATOM 294 C GLU A 123 206.245 182.566 161.073 1.00102.67 C
ATOM 295 O GLU A 123 206.483 182.069 159.968 1.00102.67 O
ATOM 296 CB GLU A 123 204.391 184.224 160.745 1.00102.67 C
ATOM 297 CG GLU A 123 204.092 183.742 159.339 1.00102.67 C
ATOM 298 CD GLU A 123 202.659 184.010 158.930 1.00102.67 C
ATOM 299 OE1 GLU A 123 201.905 184.580 159.747 1.00102.67 O
ATOM 300 OE2 GLU A 123 202.284 183.654 157.793 1.00102.67 O
ATOM 301 N GLY A 124 206.323 181.887 162.211 1.00103.93 N
ATOM 302 CA GLY A 124 206.702 180.484 162.235 1.00103.93 C
ATOM 303 C GLY A 124 206.171 179.800 163.473 1.00103.93 C
ATOM 304 O GLY A 124 206.056 180.411 164.540 1.00103.93 O
ATOM 305 N ILE A 125 205.852 178.515 163.330 1.00111.88 N
ATOM 306 CA ILE A 125 205.282 177.731 164.421 1.00111.88 C
ATOM 307 C ILE A 125 206.400 177.219 165.319 1.00111.88 C
ATOM 308 O ILE A 125 207.432 176.737 164.837 1.00111.88 O
ATOM 309 CB ILE A 125 204.427 176.578 163.859 1.00111.88 C
ATOM 310 CG1 ILE A 125 205.251 175.673 162.940 1.00111.88 C
ATOM 311 CG2 ILE A 125 203.236 177.124 163.093 1.00111.88 C
ATOM 312 CD1 ILE A 125 205.906 174.503 163.636 1.00111.88 C
ATOM 313 N MET A 126 206.197 177.311 166.634 1.00115.13 N
ATOM 314 CA MET A 126 207.241 176.972 167.591 1.00115.13 C
ATOM 315 C MET A 126 206.629 176.412 168.865 1.00115.13 C
ATOM 316 O MET A 126 205.559 176.852 169.296 1.00115.13 O
ATOM 317 CB MET A 126 208.113 178.193 167.915 1.00115.13 C
ATOM 318 CG MET A 126 207.383 179.365 168.567 1.00115.13 C
ATOM 319 SD MET A 126 207.276 179.304 170.366 1.00115.13 S
ATOM 320 CE MET A 126 205.805 180.287 170.645 1.00115.13 C
ATOM 321 N VAL A 127 207.322 175.445 169.464 1.00113.61 N
ATOM 322 CA VAL A 127 206.956 174.869 170.751 1.00113.61 C
ATOM 323 C VAL A 127 208.072 175.169 171.741 1.00113.61 C
ATOM 324 O VAL A 127 209.253 175.155 171.380 1.00113.61 O

ATOM 325 CB VAL A 127 206.710 173.351 170.649 1.00113.61 C
ATOM 326 CG1 VAL A 127 205.547 173.068 169.717 1.00113.61 C
ATOM 327 CG2 VAL A 127 207.966 172.645 170.169 1.00113.61 C
ATOM 328 N VAL A 128 207.695 175.438 172.991 1.00114.43 N
ATOM 329 CA VAL A 128 208.655 175.849 174.010 1.00114.43 C
ATOM 330 C VAL A 128 208.740 174.790 175.100 1.00114.43 C
ATOM 331 O VAL A 128 207.988 173.809 175.090 1.00114.43 O
ATOM 332 CB VAL A 128 208.273 177.213 174.608 1.00114.43 C
ATOM 333 CG1 VAL A 128 208.236 178.272 173.522 1.00114.43 C
ATOM 334 CG2 VAL A 128 206.933 177.121 175.316 1.00114.43 C
ATOM 335 N TYR A 129 209.651 174.984 176.049 1.00113.69 N
ATOM 336 CA TYR A 129 209.794 174.079 177.182 1.00113.69 C
ATOM 337 C TYR A 129 210.769 174.704 178.172 1.00113.69 C
ATOM 338 O TYR A 129 211.405 175.723 177.887 1.00113.69 O
ATOM 339 CB TYR A 129 210.244 172.687 176.732 1.00113.69 C
ATOM 340 CG TYR A 129 211.588 172.632 176.056 1.00113.69 C
ATOM 341 CD1 TYR A 129 211.709 172.853 174.693 1.00113.69 C
ATOM 342 CD2 TYR A 129 212.732 172.321 176.773 1.00113.69 C
ATOM 343 CE1 TYR A 129 212.937 172.791 174.068 1.00113.69 C
ATOM 344 CE2 TYR A 129 213.964 172.253 176.160 1.00113.69 C
ATOM 345 CZ TYR A 129 214.062 172.489 174.806 1.00113.69 C
ATOM 346 OH TYR A 129 215.289 172.424 174.188 1.00113.69 O
ATOM 347 N LYS A 130 210.874 174.082 179.346 1.00112.52 N
ATOM 348 CA LYS A 130 211.514 174.699 180.499 1.00112.52 C
ATOM 349 C LYS A 130 212.475 173.719 181.166 1.00112.52 C
ATOM 350 O LYS A 130 212.364 172.501 181.013 1.00112.52 O
ATOM 351 CB LYS A 130 210.447 175.189 181.493 1.00112.52 C
ATOM 352 CG LYS A 130 210.961 175.960 182.693 1.00112.52 C
ATOM 353 CD LYS A 130 209.800 176.532 183.496 1.00112.52 C
ATOM 354 CE LYS A 130 209.248 175.516 184.485 1.00112.52 C
ATOM 355 NZ LYS A 130 208.244 174.612 183.856 1.00112.52 N
ATOM 356 N ARG A 131 213.429 174.278 181.911 1.00115.96 N
ATOM 357 CA ARG A 131 214.448 173.511 182.618 1.00115.96 C
ATOM 358 C ARG A 131 213.889 172.920 183.911 1.00115.96 C

ATOM 359 O ARG A 131 212.951 173.456 184.507 1.00115.96 O
ATOM 360 CB ARG A 131 215.648 174.410 182.926 1.00115.96 C
ATOM 361 CG ARG A 131 216.782 173.767 183.717 1.00115.96 C
ATOM 362 CD ARG A 131 217.540 172.731 182.910 1.00115.96 C
ATOM 363 NE ARG A 131 218.661 172.165 183.657 1.00115.96 N
ATOM 364 CZ ARG A 131 219.404 171.145 183.237 1.00115.96 C
ATOM 365 NH1 ARG A 131 220.402 170.699 183.988 1.00115.96 N
ATOM 366 NH2 ARG A 131 219.154 170.574 182.069 1.00115.96 N
ATOM 367 N ASN A 132 214.477 171.802 184.346 1.00108.47 N
ATOM 368 CA ASN A 132 214.061 171.120 185.566 1.00108.47 C
ATOM 369 C ASN A 132 215.265 170.805 186.446 1.00108.47 C
ATOM 370 O ASN A 132 216.360 170.514 185.957 1.00108.47 O
ATOM 371 CB ASN A 132 213.294 169.830 185.256 1.00108.47 C
ATOM 372 CG ASN A 132 211.908 170.097 184.710 1.00108.47 C
ATOM 373 OD1 ASN A 132 211.199 170.981 185.192 1.00108.47 O
ATOM 374 ND2 ASN A 132 211.512 169.334 183.698 1.00108.47 N
ATOM 375 N ILE A 133 215.038 170.869 187.759 1.00 94.76 N
ATOM 376 CA ILE A 133 216.076 170.743 188.779 1.00 94.76 C
ATOM 377 C ILE A 133 215.706 169.617 189.742 1.00 94.76 C
ATOM 378 O ILE A 133 215.852 169.762 190.961 1.00 94.76 O
ATOM 379 CB ILE A 133 216.293 172.078 189.516 1.00 94.76 C
ATOM 380 CG1 ILE A 133 216.477 173.207 188.503 1.00 94.76 C
ATOM 381 CG2 ILE A 133 217.551 172.026 190.371 1.00 94.76 C
ATOM 382 CD1 ILE A 133 217.673 173.023 187.593 1.00 94.76 C
ATOM 383 N VAL A 134 215.186 168.512 189.196 1.00 85.55 N
ATOM 384 CA VAL A 134 214.476 167.436 189.897 1.00 85.55 C
ATOM 385 C VAL A 134 215.079 167.068 191.252 1.00 85.55 C
ATOM 386 O VAL A 134 216.300 166.953 191.398 1.00 85.55 O
ATOM 387 CB VAL A 134 214.412 166.190 188.994 1.00 85.55 C
ATOM 388 CG1 VAL A 134 213.767 165.028 189.726 1.00 85.55 C
ATOM 389 CG2 VAL A 134 213.664 166.505 187.709 1.00 85.55 C
ATOM 390 N ALA A 135 214.209 166.890 192.250 1.00 66.23 N
ATOM 391 CA ALA A 135 214.576 166.807 193.657 1.00 66.23 C
ATOM 392 C ALA A 135 214.796 165.357 194.096 1.00 66.23 C

ATOM 393 O ALA A 135 214.921 164.444 193.277 1.00 66.23 O
ATOM 394 CB ALA A 135 213.511 167.493 194.507 1.00 66.23 C
ATOM 395 N HIS A 136 214.849 165.139 195.412 1.00 54.30 N
ATOM 396 CA HIS A 136 215.210 163.850 195.988 1.00 54.30 C
ATOM 397 C HIS A 136 214.482 163.680 197.319 1.00 54.30 C
ATOM 398 O HIS A 136 214.306 164.653 198.056 1.00 54.30 O
ATOM 399 CB HIS A 136 216.731 163.776 196.177 1.00 54.30 C
ATOM 400 CG HIS A 136 217.257 162.395 196.400 1.00 54.30 C
ATOM 401 ND1 HIS A 136 218.541 162.154 196.836 1.00 54.30 N
ATOM 402 CD2 HIS A 136 216.685 161.180 196.224 1.00 54.30 C
ATOM 403 CE1 HIS A 136 218.735 160.852 196.930 1.00 54.30 C
ATOM 404 NE2 HIS A 136 217.624 160.238 196.566 1.00 54.30 N
ATOM 405 N THR A 137 214.057 162.450 197.624 1.00 45.28 N
ATOM 406 CA THR A 137 213.307 162.157 198.849 1.00 45.28 C
ATOM 407 C THR A 137 213.739 160.803 199.395 1.00 45.28 C
ATOM 408 O THR A 137 213.697 159.807 198.667 1.00 45.28 O
ATOM 409 CB THR A 137 211.798 162.158 198.590 1.00 45.28 C
ATOM 410 OG1 THR A 137 211.477 161.152 197.623 1.00 45.28 O
ATOM 411 CG2 THR A 137 211.333 163.510 198.078 1.00 45.28 C
ATOM 412 N PHE A 138 214.143 160.752 200.679 1.00 40.92 N
ATOM 413 CA PHE A 138 214.796 159.546 201.181 1.00 40.92 C
ATOM 414 C PHE A 138 214.491 159.128 202.623 1.00 40.92 C
ATOM 415 O PHE A 138 215.157 158.215 203.125 1.00 40.92 O
ATOM 416 CB PHE A 138 216.313 159.683 200.994 1.00 40.92 C
ATOM 417 CG PHE A 138 216.899 160.908 201.629 1.00 40.92 C
ATOM 418 CD1 PHE A 138 216.937 162.106 200.939 1.00 40.92 C
ATOM 419 CD2 PHE A 138 217.442 160.859 202.894 1.00 40.92 C
ATOM 420 CE1 PHE A 138 217.477 163.230 201.507 1.00 40.92 C
ATOM 421 CE2 PHE A 138 217.990 161.984 203.462 1.00 40.92 C
ATOM 422 CZ PHE A 138 218.003 163.169 202.766 1.00 40.92 C
ATOM 423 N LYS A 139 213.505 159.718 203.303 1.00 37.64 N
ATOM 424 CA LYS A 139 212.978 159.164 204.559 1.00 37.64 C
ATOM 425 C LYS A 139 214.034 159.095 205.673 1.00 37.64 C
ATOM 426 O LYS A 139 214.521 158.025 206.041 1.00 37.64 O

ATOM 427 CB LYS A 139 212.374 157.775 204.324 1.00 37.64 C
ATOM 428 CG LYS A 139 211.106 157.769 203.496 1.00 37.64 C
ATOM 429 CD LYS A 139 210.542 156.363 203.362 1.00 37.64 C
ATOM 430 CE LYS A 139 209.220 156.371 202.615 1.00 37.64 C
ATOM 431 NZ LYS A 139 209.397 156.784 201.197 1.00 37.64 N
ATOM 432 N VAL A 140 214.389 160.270 206.194 1.00 33.55 N
ATOM 433 CA VAL A 140 215.262 160.368 207.366 1.00 33.55 C
ATOM 434 C VAL A 140 214.552 159.847 208.611 1.00 33.55 C
ATOM 435 O VAL A 140 213.340 159.609 208.593 1.00 33.55 O
ATOM 436 CB VAL A 140 215.729 161.814 207.599 1.00 33.55 C
ATOM 437 CG1 VAL A 140 216.479 162.328 206.396 1.00 33.55 C
ATOM 438 CG2 VAL A 140 214.549 162.701 207.923 1.00 33.55 C
ATOM 439 N ARG A 141 215.304 159.667 209.699 1.00 30.47 N
ATOM 440 CA ARG A 141 214.773 159.153 210.963 1.00 30.47 C
ATOM 441 C ARG A 141 215.327 159.995 212.104 1.00 30.47 C
ATOM 442 O ARG A 141 216.540 160.008 212.328 1.00 30.47 O
ATOM 443 CB ARG A 141 215.145 157.687 211.166 1.00 30.47 C
ATOM 444 CG ARG A 141 214.505 156.735 210.191 1.00 30.47 C
ATOM 445 CD ARG A 141 214.771 155.303 210.605 1.00 30.47 C
ATOM 446 NE ARG A 141 216.198 155.001 210.606 1.00 30.47 N
ATOM 447 CZ ARG A 141 216.870 154.584 209.540 1.00 30.47 C
ATOM 448 NH1 ARG A 141 216.245 154.422 208.384 1.00 30.47 N
ATOM 449 NH2 ARG A 141 218.167 154.332 209.629 1.00 30.47 N
ATOM 450 N VAL A 142 214.451 160.685 212.829 1.00 26.41 N
ATOM 451 CA VAL A 142 214.852 161.563 213.924 1.00 26.41 C
ATOM 452 C VAL A 142 214.576 160.875 215.252 1.00 26.41 C
ATOM 453 O VAL A 142 213.487 160.327 215.462 1.00 26.41 O
ATOM 454 CB VAL A 142 214.122 162.912 213.851 1.00 26.41 C
ATOM 455 CG1 VAL A 142 214.465 163.749 215.061 1.00 26.41 C
ATOM 456 CG2 VAL A 142 214.491 163.639 212.577 1.00 26.41 C
ATOM 457 N TYR A 143 215.555 160.906 216.150 1.00 28.53 N
ATOM 458 CA TYR A 143 215.404 160.402 217.506 1.00 28.53 C
ATOM 459 C TYR A 143 215.268 161.566 218.479 1.00 28.53 C
ATOM 460 O TYR A 143 215.586 162.712 218.158 1.00 28.53 O

ATOM 461 CB TYR A 143 216.598 159.530 217.892 1.00 28.53 C
ATOM 462 CG TYR A 143 216.727 158.281 217.065 1.00 28.53 C
ATOM 463 CD1 TYR A 143 215.989 157.151 217.362 1.00 28.53 C
ATOM 464 CD2 TYR A 143 217.584 158.235 215.980 1.00 28.53 C
ATOM 465 CE1 TYR A 143 216.106 156.008 216.605 1.00 28.53 C
ATOM 466 CE2 TYR A 143 217.707 157.100 215.217 1.00 28.53 C
ATOM 467 CZ TYR A 143 216.968 155.988 215.532 1.00 28.53 C
ATOM 468 OH TYR A 143 217.092 154.853 214.768 1.00 28.53 O
ATOM 469 N GLN A 144 214.807 161.257 219.691 1.00 19.12 N
ATOM 470 CA GLN A 144 214.622 162.291 220.703 1.00 19.12 C
ATOM 471 C GLN A 144 214.187 161.656 222.019 1.00 19.12 C
ATOM 472 O GLN A 144 213.922 160.452 222.069 1.00 19.12 O
ATOM 473 CB GLN A 144 213.603 163.322 220.210 1.00 19.12 C
ATOM 474 CG GLN A 144 213.560 164.619 220.985 1.00 19.12 C
ATOM 475 CD GLN A 144 212.677 165.650 220.317 1.00 19.12 C
ATOM 476 OE1 GLN A 144 212.007 165.359 219.326 1.00 19.12 O
ATOM 477 NE2 GLN A 144 212.699 166.873 220.833 1.00 19.12 N
ATOM 478 N LYS A 145 214.125 162.444 223.092 1.00 35.49 N
ATOM 479 CA LYS A 145 213.691 161.933 224.392 1.00 35.49 C
ATOM 480 C LYS A 145 213.191 163.113 225.211 1.00 35.49 C
ATOM 481 O LYS A 145 213.950 164.053 225.464 1.00 35.49 O
ATOM 482 CB LYS A 145 214.822 161.209 225.110 1.00 35.49 C
ATOM 483 CG LYS A 145 214.396 160.564 226.418 1.00 35.49 C
ATOM 484 CD LYS A 145 215.562 159.902 227.129 1.00 35.49 C
ATOM 485 CE LYS A 145 215.993 158.626 226.435 1.00 35.49 C
ATOM 486 NZ LYS A 145 214.958 157.567 226.545 1.00 35.49 N
ATOM 487 N VAL A 146 211.929 163.059 225.626 1.00 39.03 N
ATOM 488 CA VAL A 146 211.276 164.156 226.328 1.00 39.03 C
ATOM 489 C VAL A 146 211.155 163.800 227.800 1.00 39.03 C
ATOM 490 O VAL A 146 210.816 162.662 228.145 1.00 39.03 O
ATOM 491 CB VAL A 146 209.891 164.446 225.731 1.00 39.03 C
ATOM 492 CG1 VAL A 146 209.220 165.583 226.478 1.00 39.03 C
ATOM 493 CG2 VAL A 146 210.008 164.743 224.258 1.00 39.03 C
ATOM 494 N LEU A 147 211.413 164.774 228.667 1.00 40.06 N

ATOM 495 CA LEU A 147 211.192 164.611 230.097 1.00 40.06 C
ATOM 496 C LEU A 147 210.624 165.906 230.649 1.00 40.06 C
ATOM 497 O LEU A 147 211.162 166.984 230.383 1.00 40.06 O
ATOM 498 CB LEU A 147 212.483 164.235 230.833 1.00 40.06 C
ATOM 499 CG LEU A 147 213.544 165.312 231.041 1.00 40.06 C
ATOM 500 CD1 LEU A 147 214.501 164.888 232.133 1.00 40.06 C
ATOM 501 CD2 LEU A 147 214.297 165.550 229.759 1.00 40.06 C
ATOM 502 N THR A 148 209.542 165.798 231.416 1.00 44.50 N
ATOM 503 CA THR A 148 208.832 166.959 231.934 1.00 44.50 C
ATOM 504 C THR A 148 208.671 166.828 233.438 1.00 44.50 C
ATOM 505 O THR A 148 208.320 165.756 233.938 1.00 44.50 O
ATOM 506 CB THR A 148 207.458 167.107 231.283 1.00 44.50 C
ATOM 507 OG1 THR A 148 206.641 165.986 231.634 1.00 44.50 O
ATOM 508 CG2 THR A 148 207.602 167.154 229.781 1.00 44.50 C
ATOM 509 N PHE A 149 208.923 167.918 234.150 1.00 50.81 N
ATOM 510 CA PHE A 149 208.711 167.965 235.585 1.00 50.81 C
ATOM 511 C PHE A 149 207.325 168.523 235.897 1.00 50.81 C
ATOM 512 O PHE A 149 206.676 169.158 235.066 1.00 50.81 O
ATOM 513 CB PHE A 149 209.789 168.813 236.255 1.00 50.81 C
ATOM 514 CG PHE A 149 211.159 168.210 236.191 1.00 50.81 C
ATOM 515 CD1 PHE A 149 211.542 167.238 237.096 1.00 50.81 C
ATOM 516 CD2 PHE A 149 212.065 168.616 235.229 1.00 50.81 C
ATOM 517 CE1 PHE A 149 212.802 166.682 237.044 1.00 50.81 C
ATOM 518 CE2 PHE A 149 213.328 168.063 235.172 1.00 50.81 C
ATOM 519 CZ PHE A 149 213.696 167.094 236.080 1.00 50.81 C
ATOM 520 N ARG A 150 206.874 168.272 237.122 1.00 62.61 N
ATOM 521 CA ARG A 150 205.630 168.839 237.618 1.00 62.61 C
ATOM 522 C ARG A 150 205.759 169.041 239.116 1.00 62.61 C
ATOM 523 O ARG A 150 206.544 168.369 239.787 1.00 62.61 O
ATOM 524 CB ARG A 150 204.422 167.949 237.312 1.00 62.61 C
ATOM 525 CG ARG A 150 204.032 167.884 235.852 1.00 62.61 C
ATOM 526 CD ARG A 150 202.827 166.979 235.673 1.00 62.61 C
ATOM 527 NE ARG A 150 202.433 166.850 234.275 1.00 62.61 N
ATOM 528 CZ ARG A 150 201.463 166.048 233.849 1.00 62.61 C

ATOM 529 NH1 ARG A 150 200.792 165.301 234.715 1.00 62.61 N
ATOM 530 NH2 ARG A 150 201.168 165.989 232.558 1.00 62.61 N
ATOM 531 N ARG A 151 204.972 169.977 239.637 1.00 67.13 N
ATOM 532 CA ARG A 151 204.974 170.284 241.061 1.00 67.13 C
ATOM 533 C ARG A 151 203.543 170.567 241.477 1.00 67.13 C
ATOM 534 O ARG A 151 202.945 171.543 241.017 1.00 67.13 O
ATOM 535 CB ARG A 151 205.886 171.475 241.364 1.00 67.13 C
ATOM 536 CG ARG A 151 207.355 171.181 241.111 1.00 67.13 C
ATOM 537 CD ARG A 151 208.250 172.309 241.580 1.00 67.13 C
ATOM 538 NE ARG A 151 208.013 173.538 240.832 1.00 67.13 N
ATOM 539 CZ ARG A 151 208.625 173.844 239.694 1.00 67.13 C
ATOM 540 NH1 ARG A 151 209.509 173.006 239.171 1.00 67.13 N
ATOM 541 NH2 ARG A 151 208.352 174.985 239.077 1.00 67.13 N
ATOM 542 N SER A 152 202.990 169.712 242.334 1.00 71.05 N
ATOM 543 CA SER A 152 201.573 169.774 242.668 1.00 71.05 C
ATOM 544 C SER A 152 201.390 169.534 244.156 1.00 71.05 C
ATOM 545 O SER A 152 201.892 168.543 244.693 1.00 71.05 O
ATOM 546 CB SER A 152 200.778 168.744 241.861 1.00 71.05 C
ATOM 547 OG SER A 152 201.143 167.424 242.224 1.00 71.05 O
ATOM 548 N TYR A 153 200.674 170.438 244.814 1.00 70.20 N
ATOM 549 CA TYR A 153 200.240 170.242 246.188 1.00 70.20 C
ATOM 550 C TYR A 153 198.776 169.828 246.180 1.00 70.20 C
ATOM 551 O TYR A 153 197.974 170.367 245.412 1.00 70.20 O
ATOM 552 CB TYR A 153 200.432 171.515 247.012 1.00 70.20 C
ATOM 553 CG TYR A 153 200.107 171.349 248.475 1.00 70.20 C
ATOM 554 CD1 TYR A 153 200.966 170.666 249.319 1.00 70.20 C
ATOM 555 CD2 TYR A 153 198.948 171.882 249.014 1.00 70.20 C
ATOM 556 CE1 TYR A 153 200.678 170.511 250.657 1.00 70.20 C
ATOM 557 CE2 TYR A 153 198.652 171.733 250.352 1.00 70.20 C
ATOM 558 CZ TYR A 153 199.521 171.045 251.168 1.00 70.20 C
ATOM 559 OH TYR A 153 199.235 170.890 252.503 1.00 70.20 O
ATOM 560 N ALA A 154 198.430 168.871 247.037 1.00 76.52 N
ATOM 561 CA ALA A 154 197.139 168.195 246.969 1.00 76.52 C
ATOM 562 C ALA A 154 196.370 168.430 248.261 1.00 76.52 C

ATOM 563 O ALA A 154 196.762 167.928 249.319 1.00 76.52 O
ATOM 564 CB ALA A 154 197.322 166.699 246.716 1.00 76.52 C
ATOM 565 N TYR A 155 195.276 169.187 248.177 1.00 75.88 N
ATOM 566 CA TYR A 155 194.361 169.317 249.304 1.00 75.88 C
ATOM 567 C TYR A 155 193.634 168.008 249.567 1.00 75.88 C
ATOM 568 O TYR A 155 193.844 167.018 248.860 1.00 75.88 O
ATOM 569 CB TYR A 155 193.332 170.424 249.070 1.00 75.88 C
ATOM 570 CG TYR A 155 193.865 171.820 249.247 1.00 75.88 C
ATOM 571 CD1 TYR A 155 195.116 172.040 249.795 1.00 75.88 C
ATOM 572 CD2 TYR A 155 193.095 172.920 248.907 1.00 75.88 C
ATOM 573 CE1 TYR A 155 195.601 173.319 249.970 1.00 75.88 C
ATOM 574 CE2 TYR A 155 193.569 174.202 249.078 1.00 75.88 C
ATOM 575 CZ TYR A 155 194.821 174.397 249.613 1.00 75.88 C
ATOM 576 OH TYR A 155 195.294 175.675 249.785 1.00 75.88 O
ATOM 577 N ILE A 156 192.770 167.998 250.585 1.00 81.92 N
ATOM 578 CA ILE A 156 191.935 166.835 250.848 1.00 81.92 C
ATOM 579 C ILE A 156 190.875 166.643 249.772 1.00 81.92 C
ATOM 580 O ILE A 156 190.319 165.546 249.645 1.00 81.92 O
ATOM 581 CB ILE A 156 191.284 166.953 252.239 1.00 81.92 C
ATOM 582 CG1 ILE A 156 190.596 165.644 252.628 1.00 81.92 C
ATOM 583 CG2 ILE A 156 190.311 168.116 252.273 1.00 81.92 C
ATOM 584 CD1 ILE A 156 191.547 164.491 252.823 1.00 81.92 C
ATOM 585 N HIS A 157 190.572 167.681 248.992 1.00 84.48 N
ATOM 586 CA HIS A 157 189.608 167.577 247.904 1.00 84.48 C
ATOM 587 C HIS A 157 190.254 167.770 246.538 1.00 84.48 C
ATOM 588 O HIS A 157 190.138 166.898 245.674 1.00 84.48 O
ATOM 589 CB HIS A 157 188.474 168.593 248.098 1.00 84.48 C
ATOM 590 CG HIS A 157 187.604 168.309 249.282 1.00 84.48 C
ATOM 591 ND1 HIS A 157 187.849 168.840 250.529 1.00 84.48 N
ATOM 592 CD2 HIS A 157 186.495 167.543 249.409 1.00 84.48 C
ATOM 593 CE1 HIS A 157 186.925 168.417 251.374 1.00 84.48 C
ATOM 594 NE2 HIS A 157 186.092 167.629 250.720 1.00 84.48 N
ATOM 595 N THR A 158 190.938 168.888 246.319 1.00 82.91 N
ATOM 596 CA THR A 158 191.485 169.229 245.015 1.00 82.91 C

ATOM 597 C THR A 158 193.006 169.279 245.064 1.00 82.91 C
ATOM 598 O THR A 158 193.607 169.460 246.127 1.00 82.91 O
ATOM 599 CB THR A 158 190.942 170.575 244.528 1.00 82.91 C
ATOM 600 OG1 THR A 158 191.312 171.603 245.454 1.00 82.91 O
ATOM 601 CG2 THR A 158 189.428 170.524 244.413 1.00 82.91 C
ATOM 602 N THR A 159 193.622 169.117 243.897 1.00 78.81 N
ATOM 603 CA THR A 159 195.071 169.149 243.749 1.00 78.81 C
ATOM 604 C THR A 159 195.444 170.234 242.749 1.00 78.81 C
ATOM 605 O THR A 159 194.881 170.291 241.651 1.00 78.81 O
ATOM 606 CB THR A 159 195.603 167.792 243.284 1.00 78.81 C
ATOM 607 OG1 THR A 159 195.097 167.504 241.976 1.00 78.81 O
ATOM 608 CG2 THR A 159 195.151 166.697 244.236 1.00 78.81 C
ATOM 609 N TYR A 160 196.383 171.092 243.131 1.00 74.16 N
ATOM 610 CA TYR A 160 196.784 172.223 242.309 1.00 74.16 C
ATOM 611 C TYR A 160 198.002 171.877 241.457 1.00 74.16 C
ATOM 612 O TYR A 160 198.712 170.902 241.708 1.00 74.16 O
ATOM 613 CB TYR A 160 197.077 173.437 243.190 1.00 74.16 C
ATOM 614 CG TYR A 160 195.848 174.005 243.858 1.00 74.16 C
ATOM 615 CD1 TYR A 160 194.995 174.853 243.171 1.00 74.16 C
ATOM 616 CD2 TYR A 160 195.535 173.687 245.173 1.00 74.16 C
ATOM 617 CE1 TYR A 160 193.868 175.375 243.772 1.00 74.16 C
ATOM 618 CE2 TYR A 160 194.406 174.206 245.782 1.00 74.16 C
ATOM 619 CZ TYR A 160 193.580 175.048 245.074 1.00 74.16 C
ATOM 620 OH TYR A 160 192.453 175.572 245.667 1.00 74.16 O
ATOM 621 N LEU A 161 198.234 172.695 240.432 1.00 70.40 N
ATOM 622 CA LEU A 161 199.375 172.541 239.531 1.00 70.40 C
ATOM 623 C LEU A 161 200.280 173.752 239.732 1.00 70.40 C
ATOM 624 O LEU A 161 199.982 174.850 239.253 1.00 70.40 O
ATOM 625 CB LEU A 161 198.917 172.409 238.081 1.00 70.40 C
ATOM 626 CG LEU A 161 199.992 172.147 237.022 1.00 70.40 C
ATOM 627 CD1 LEU A 161 200.677 170.809 237.256 1.00 70.40 C
ATOM 628 CD2 LEU A 161 199.399 172.208 235.622 1.00 70.40 C
ATOM 629 N LEU A 162 201.389 173.546 240.443 1.00 68.87 N
ATOM 630 CA LEU A 162 202.245 174.660 240.832 1.00 68.87 C

ATOM 631 C LEU A 162 203.231 175.044 239.734 1.00 68.87 C
ATOM 632 O LEU A 162 203.568 176.224 239.590 1.00 68.87 O
ATOM 633 CB LEU A 162 202.983 174.316 242.123 1.00 68.87 C
ATOM 634 CG LEU A 162 202.058 174.239 243.334 1.00 68.87 C
ATOM 635 CD1 LEU A 162 202.780 173.686 244.540 1.00 68.87 C
ATOM 636 CD2 LEU A 162 201.531 175.621 243.630 1.00 68.87 C
ATOM 637 N GLY A 163 203.711 174.078 238.960 1.00 66.57 N
ATOM 638 CA GLY A 163 204.660 174.409 237.914 1.00 66.57 C
ATOM 639 C GLY A 163 204.852 173.250 236.965 1.00 66.57 C
ATOM 640 O GLY A 163 204.349 172.145 237.181 1.00 66.57 O
ATOM 641 N SER A 164 205.593 173.525 235.895 1.00 58.31 N
ATOM 642 CA SER A 164 205.951 172.509 234.916 1.00 58.31 C
ATOM 643 C SER A 164 206.930 173.121 233.929 1.00 58.31 C
ATOM 644 O SER A 164 206.868 174.318 233.638 1.00 58.31 O
ATOM 645 CB SER A 164 204.720 171.970 234.179 1.00 58.31 C
ATOM 646 OG SER A 164 204.141 172.966 233.356 1.00 58.31 O
ATOM 647 N ASN A 165 207.842 172.290 233.428 1.00 56.35 N
ATOM 648 CA ASN A 165 208.817 172.757 232.447 1.00 56.35 C
ATOM 649 C ASN A 165 209.325 171.559 231.644 1.00 56.35 C
ATOM 650 O ASN A 165 210.167 170.798 232.127 1.00 56.35 O
ATOM 651 CB ASN A 165 209.951 173.512 233.125 1.00 56.35 C
ATOM 652 CG ASN A 165 210.547 172.750 234.289 1.00 56.35 C
ATOM 653 OD1 ASN A 165 210.110 171.646 234.613 1.00 56.35 O
ATOM 654 ND2 ASN A 165 211.564 173.331 234.916 1.00 56.35 N
ATOM 655 N THR A 166 208.811 171.408 230.426 1.00 47.78 N
ATOM 656 CA THR A 166 209.345 170.396 229.531 1.00 47.78 C
ATOM 657 C THR A 166 210.806 170.709 229.217 1.00 47.78 C
ATOM 658 O THR A 166 211.271 171.843 229.357 1.00 47.78 O
ATOM 659 CB THR A 166 208.526 170.334 228.242 1.00 47.78 C
ATOM 660 OG1 THR A 166 208.643 171.577 227.539 1.00 47.78 O
ATOM 661 CG2 THR A 166 207.054 170.083 228.554 1.00 47.78 C
ATOM 662 N GLU A 167 211.541 169.682 228.797 1.00 46.33 N
ATOM 663 CA GLU A 167 212.950 169.868 228.455 1.00 46.33 C
ATOM 664 C GLU A 167 213.339 168.786 227.459 1.00 46.33 C

ATOM 665 O GLU A 167 213.459 167.616 227.831 1.00 46.33 O
ATOM 666 CB GLU A 167 213.826 169.819 229.701 1.00 46.33 C
ATOM 667 CG GLU A 167 215.299 170.095 229.440 1.00 46.33 C
ATOM 668 CD GLU A 167 216.121 170.129 230.714 1.00 46.33 C
ATOM 669 OE1 GLU A 167 215.539 169.923 231.799 1.00 46.33 O
ATOM 670 OE2 GLU A 167 217.346 170.362 230.632 1.00 46.33 O
ATOM 671 N TYR A 168 213.531 169.179 226.205 1.00 41.15 N
ATOM 672 CA TYR A 168 213.873 168.232 225.156 1.00 41.15 C
ATOM 673 C TYR A 168 215.380 168.027 225.105 1.00 41.15 C
ATOM 674 O TYR A 168 216.154 168.986 225.155 1.00 41.15 O
ATOM 675 CB TYR A 168 213.358 168.746 223.817 1.00 41.15 C
ATOM 676 CG TYR A 168 211.856 168.875 223.785 1.00 41.15 C
ATOM 677 CD1 TYR A 168 211.054 167.797 223.459 1.00 41.15 C
ATOM 678 CD2 TYR A 168 211.240 170.070 224.119 1.00 41.15 C
ATOM 679 CE1 TYR A 168 209.677 167.911 223.441 1.00 41.15 C
ATOM 680 CE2 TYR A 168 209.868 170.196 224.104 1.00 41.15 C
ATOM 681 CZ TYR A 168 209.090 169.112 223.767 1.00 41.15 C
ATOM 682 OH TYR A 168 207.723 169.232 223.756 1.00 41.15 O
ATOM 683 N VAL A 169 215.799 166.770 224.999 1.00 38.77 N
ATOM 684 CA VAL A 169 217.220 166.447 225.025 1.00 38.77 C
ATOM 685 C VAL A 169 217.454 165.131 224.298 1.00 38.77 C
ATOM 686 O VAL A 169 216.693 164.173 224.467 1.00 38.77 O
ATOM 687 CB VAL A 169 217.742 166.387 226.472 1.00 38.77 C
ATOM 688 CG1 VAL A 169 217.122 165.215 227.211 1.00 38.77 C
ATOM 689 CG2 VAL A 169 219.254 166.304 226.490 1.00 38.77 C
ATOM 690 N ALA A 170 218.499 165.078 223.477 1.00 34.69 N
ATOM 691 CA ALA A 170 218.780 163.874 222.717 1.00 34.69 C
ATOM 692 C ALA A 170 219.355 162.790 223.625 1.00 34.69 C
ATOM 693 O ALA A 170 219.951 163.090 224.663 1.00 34.69 O
ATOM 694 CB ALA A 170 219.755 164.169 221.583 1.00 34.69 C
ATOM 695 N PRO A 171 219.191 161.525 223.258 1.00 32.53 N
ATOM 696 CA PRO A 171 219.644 160.437 224.120 1.00 32.53 C
ATOM 697 C PRO A 171 221.129 160.188 223.947 1.00 32.53 C
ATOM 698 O PRO A 171 221.772 160.794 223.078 1.00 32.53 O

ATOM 699 CB PRO A 171 218.824 159.239 223.623 1.00 32.53 C
ATOM 700 CG PRO A 171 218.603 159.538 222.189 1.00 32.53 C
ATOM 701 CD PRO A 171 218.454 161.031 222.085 1.00 32.53 C
ATOM 702 N PRO A 172 221.711 159.303 224.753 1.00 35.57 N
ATOM 703 CA PRO A 172 223.119 158.939 224.556 1.00 35.57 C
ATOM 704 C PRO A 172 223.318 158.148 223.277 1.00 35.57 C
ATOM 705 O PRO A 172 222.362 157.908 222.535 1.00 35.57 O
ATOM 706 CB PRO A 172 223.440 158.092 225.793 1.00 35.57 C
ATOM 707 CG PRO A 172 222.410 158.478 226.800 1.00 35.57 C
ATOM 708 CD PRO A 172 221.172 158.752 226.006 1.00 35.57 C
ATOM 709 N MET A 173 224.550 157.725 223.010 1.00 43.04 N
ATOM 710 CA MET A 173 224.830 156.986 221.788 1.00 43.04 C
ATOM 711 C MET A 173 224.573 155.494 221.923 1.00 43.04 C
ATOM 712 O MET A 173 224.144 154.862 220.952 1.00 43.04 O
ATOM 713 CB MET A 173 226.276 157.217 221.348 1.00 43.04 C
ATOM 714 CG MET A 173 226.609 156.604 220.001 1.00 43.04 C
ATOM 715 SD MET A 173 225.671 157.347 218.655 1.00 43.04 S
ATOM 716 CE MET A 173 225.731 156.033 217.442 1.00 43.04 C
ATOM 717 N TRP A 174 224.825 154.908 223.097 1.00 55.11 N
ATOM 718 CA TRP A 174 224.556 153.484 223.267 1.00 55.11 C
ATOM 719 C TRP A 174 223.075 153.172 223.114 1.00 55.11 C
ATOM 720 O TRP A 174 222.714 152.080 222.663 1.00 55.11 O
ATOM 721 CB TRP A 174 225.054 152.998 224.629 1.00 55.11 C
ATOM 722 CG TRP A 174 224.399 153.663 225.804 1.00 55.11 C
ATOM 723 CD1 TRP A 174 223.216 153.316 226.394 1.00 55.11 C
ATOM 724 CD2 TRP A 174 224.905 154.773 226.550 1.00 55.11 C
ATOM 725 NE1 TRP A 174 222.951 154.150 227.449 1.00 55.11 N
ATOM 726 CE2 TRP A 174 223.973 155.053 227.568 1.00 55.11 C
ATOM 727 CE3 TRP A 174 226.054 155.563 226.452 1.00 55.11 C
ATOM 728 CZ2 TRP A 174 224.153 156.088 228.480 1.00 55.11 C
ATOM 729 CZ3 TRP A 174 226.231 156.589 227.360 1.00 55.11 C
ATOM 730 CH2 TRP A 174 225.286 156.843 228.360 1.00 55.11 C
ATOM 731 N GLU A 175 222.206 154.112 223.481 1.00 44.00 N
ATOM 732 CA GLU A 175 220.772 153.869 223.449 1.00 44.00 C

ATOM 733 C GLU A 175 220.203 153.888 222.038 1.00 44.00 C
ATOM 734 O GLU A 175 219.103 153.368 221.826 1.00 44.00 O
ATOM 735 CB GLU A 175 220.055 154.896 224.327 1.00 44.00 C
ATOM 736 CG GLU A 175 218.571 154.649 224.499 1.00 44.00 C
ATOM 737 CD GLU A 175 217.937 155.604 225.490 1.00 44.00 C
ATOM 738 OE1 GLU A 175 218.657 156.472 226.027 1.00 44.00 O
ATOM 739 OE2 GLU A 175 216.720 155.485 225.740 1.00 44.00 O
ATOM 740 N ILE A 176 220.920 154.456 221.074 1.00 32.07 N
ATOM 741 CA ILE A 176 220.544 154.354 219.674 1.00 32.07 C
ATOM 742 C ILE A 176 221.167 153.108 219.037 1.00 32.07 C
ATOM 743 O ILE A 176 221.064 152.901 217.830 1.00 32.07 O
ATOM 744 CB ILE A 176 220.903 155.634 218.903 1.00 32.07 C
ATOM 745 CG1 ILE A 176 220.308 156.846 219.611 1.00 32.07 C
ATOM 746 CG2 ILE A 176 220.294 155.632 217.520 1.00 32.07 C
ATOM 747 CD1 ILE A 176 220.804 158.166 219.075 1.00 32.07 C
ATOM 748 N HIS A 177 221.806 152.266 219.845 1.00 41.04 N
ATOM 749 CA HIS A 177 222.120 150.897 219.469 1.00 41.04 C
ATOM 750 C HIS A 177 221.210 149.902 220.166 1.00 41.04 C
ATOM 751 O HIS A 177 221.335 148.694 219.940 1.00 41.04 O
ATOM 752 CB HIS A 177 223.580 150.564 219.787 1.00 41.04 C
ATOM 753 CG HIS A 177 224.565 151.341 218.977 1.00 41.04 C
ATOM 754 ND1 HIS A 177 224.784 151.095 217.640 1.00 41.04 N
ATOM 755 CD2 HIS A 177 225.398 152.352 219.316 1.00 41.04 C
ATOM 756 CE1 HIS A 177 225.705 151.927 217.188 1.00 41.04 C
ATOM 757 NE2 HIS A 177 226.094 152.699 218.186 1.00 41.04 N
ATOM 758 N HIS A 178 220.304 150.380 221.013 1.00 45.86 N
ATOM 759 CA HIS A 178 219.306 149.541 221.645 1.00 45.86 C
ATOM 760 C HIS A 178 217.905 149.878 221.165 1.00 45.86 C
ATOM 761 O HIS A 178 216.976 149.101 221.407 1.00 45.86 O
ATOM 762 CB HIS A 178 219.390 149.677 223.169 1.00 45.86 C
ATOM 763 CG HIS A 178 218.563 148.677 223.910 1.00 45.86 C
ATOM 764 ND1 HIS A 178 217.232 148.882 224.199 1.00 45.86 N
ATOM 765 CD2 HIS A 178 218.877 147.462 224.417 1.00 45.86 C
ATOM 766 CE1 HIS A 178 216.761 147.837 224.855 1.00 45.86 C

ATOM 767 NE2 HIS A 178 217.739 146.961 225.000 1.00 45.86 N
ATOM 768 N ILE A 179 217.731 151.005 220.478 1.00 37.69 N
ATOM 769 CA ILE A 179 216.478 151.300 219.798 1.00 37.69 C
ATOM 770 C ILE A 179 216.469 150.746 218.378 1.00 37.69 C
ATOM 771 O ILE A 179 215.385 150.483 217.837 1.00 37.69 O
ATOM 772 CB ILE A 179 216.201 152.818 219.782 1.00 37.69 C
ATOM 773 CG1 ILE A 179 216.031 153.348 221.202 1.00 37.69 C
ATOM 774 CG2 ILE A 179 214.967 153.140 218.966 1.00 37.69 C
ATOM 775 CD1 ILE A 179 215.981 154.855 221.278 1.00 37.69 C
ATOM 776 N ASN A 180 217.636 150.541 217.769 1.00 34.14 N
ATOM 777 CA ASN A 180 217.728 149.968 216.434 1.00 34.14 C
ATOM 778 C ASN A 180 218.122 148.498 216.464 1.00 34.14 C
ATOM 779 O ASN A 180 218.608 147.970 215.461 1.00 34.14 O
ATOM 780 CB ASN A 180 218.714 150.762 215.580 1.00 34.14 C
ATOM 781 CG ASN A 180 218.182 152.122 215.196 1.00 34.14 C
ATOM 782 OD1 ASN A 180 217.002 152.271 214.886 1.00 34.14 O
ATOM 783 ND2 ASN A 180 219.051 153.124 215.202 1.00 34.14 N
ATOM 784 N SER A 181 217.923 147.825 217.595 1.00 42.06 N
ATOM 785 CA SER A 181 218.154 146.386 217.667 1.00 42.06 C
ATOM 786 C SER A 181 217.023 145.607 218.318 1.00 42.06 C
ATOM 787 O SER A 181 216.884 144.414 218.028 1.00 42.06 O
ATOM 788 CB SER A 181 219.455 146.088 218.422 1.00 42.06 C
ATOM 789 OG SER A 181 220.579 146.587 217.719 1.00 42.06 O
ATOM 790 N HIS A 182 216.216 146.214 219.183 1.00 44.56 N
ATOM 791 CA HIS A 182 215.064 145.531 219.754 1.00 44.56 C
ATOM 792 C HIS A 182 213.831 146.406 219.879 1.00 44.56 C
ATOM 793 O HIS A 182 212.794 145.904 220.322 1.00 44.56 O
ATOM 794 CB HIS A 182 215.413 144.962 221.132 1.00 44.56 C
ATOM 795 CG HIS A 182 216.447 143.884 221.089 1.00 44.56 C
ATOM 796 ND1 HIS A 182 217.798 144.149 221.134 1.00 44.56 N
ATOM 797 CD2 HIS A 182 216.330 142.539 220.995 1.00 44.56 C
ATOM 798 CE1 HIS A 182 218.469 143.013 221.075 1.00 44.56 C
ATOM 799 NE2 HIS A 182 217.602 142.021 220.991 1.00 44.56 N
ATOM 800 N SER A 183 213.895 147.685 219.512 1.00 45.48 N

ATOM 801 CA SER A 183 212.768 148.607 219.642 1.00 45.48 C
ATOM 802 C SER A 183 212.340 148.777 221.097 1.00 45.48 C
ATOM 803 O SER A 183 211.179 149.076 221.380 1.00 45.48 O
ATOM 804 CB SER A 183 211.582 148.163 218.782 1.00 45.48 C
ATOM 805 OG SER A 183 211.019 146.955 219.259 1.00 45.48 O
ATOM 806 N GLN A 184 213.268 148.593 222.031 1.00 48.22 N
ATOM 807 CA GLN A 184 213.015 148.797 223.453 1.00 48.22 C
ATOM 808 C GLN A 184 213.786 150.028 223.909 1.00 48.22 C
ATOM 809 O GLN A 184 214.970 150.182 223.593 1.00 48.22 O
ATOM 810 CB GLN A 184 213.408 147.572 224.274 1.00 48.22 C
ATOM 811 CG GLN A 184 212.511 146.372 224.063 1.00 48.22 C
ATOM 812 CD GLN A 184 212.895 145.207 224.946 1.00 48.22 C
ATOM 813 OE1 GLN A 184 213.877 145.273 225.684 1.00 48.22 O
ATOM 814 NE2 GLN A 184 212.121 144.131 224.878 1.00 48.22 N
ATOM 815 N CYS A 185 213.113 150.898 224.650 1.00 51.93 N
ATOM 816 CA CYS A 185 213.692 152.142 225.124 1.00 51.93 C
ATOM 817 C CYS A 185 213.775 152.143 226.645 1.00 51.93 C
ATOM 818 O CYS A 185 212.859 151.690 227.336 1.00 51.93 O
ATOM 819 CB CYS A 185 212.851 153.317 224.630 1.00 51.93 C
ATOM 820 SG CYS A 185 213.413 154.961 225.062 1.00 51.93 S
ATOM 821 N TYR A 186 214.886 152.663 227.164 1.00 55.06 N
ATOM 822 CA TYR A 186 215.142 152.640 228.596 1.00 55.06 C
ATOM 823 C TYR A 186 214.244 153.638 229.323 1.00 55.06 C
ATOM 824 O TYR A 186 213.483 154.394 228.714 1.00 55.06 O
ATOM 825 CB TYR A 186 216.614 152.926 228.874 1.00 55.06 C
ATOM 826 CG TYR A 186 217.525 151.794 228.484 1.00 55.06 C
ATOM 827 CD1 TYR A 186 217.024 150.519 228.278 1.00 55.06 C
ATOM 828 CD2 TYR A 186 218.883 151.999 228.313 1.00 55.06 C
ATOM 829 CE1 TYR A 186 217.850 149.479 227.921 1.00 55.06 C
ATOM 830 CE2 TYR A 186 219.718 150.965 227.953 1.00 55.06 C
ATOM 831 CZ TYR A 186 219.195 149.706 227.758 1.00 55.06 C
ATOM 832 OH TYR A 186 220.021 148.667 227.398 1.00 55.06 O
ATOM 833 N SER A 187 214.343 153.648 230.650 1.00 53.71 N
ATOM 834 CA SER A 187 213.512 154.504 231.488 1.00 53.71 C

ATOM 835 C SER A 187 214.348 155.171 232.568 1.00 53.71 C
ATOM 836 O SER A 187 213.932 155.272 233.726 1.00 53.71 O
ATOM 837 CB SER A 187 212.367 153.713 232.114 1.00 53.71 C
ATOM 838 OG SER A 187 212.864 152.750 233.026 1.00 53.71 O
ATOM 839 N SER A 188 215.542 155.632 232.206 1.00 54.51 N
ATOM 840 CA SER A 188 216.406 156.343 233.145 1.00 54.51 C
ATOM 841 C SER A 188 217.425 157.125 232.338 1.00 54.51 C
ATOM 842 O SER A 188 218.247 156.525 231.640 1.00 54.51 O
ATOM 843 CB SER A 188 217.100 155.374 234.099 1.00 54.51 C
ATOM 844 OG SER A 188 218.026 154.557 233.407 1.00 54.51 O
ATOM 845 N TYR A 189 217.381 158.448 232.434 1.00 53.36 N
ATOM 846 CA TYR A 189 218.226 159.321 231.624 1.00 53.36 C
ATOM 847 C TYR A 189 219.251 160.002 232.525 1.00 53.36 C
ATOM 848 O TYR A 189 219.035 161.116 233.002 1.00 53.36 O
ATOM 849 CB TYR A 189 217.380 160.337 230.876 1.00 53.36 C
ATOM 850 CG TYR A 189 218.183 161.250 229.988 1.00 53.36 C
ATOM 851 CD1 TYR A 189 218.791 160.765 228.843 1.00 53.36 C
ATOM 852 CD2 TYR A 189 218.309 162.599 230.274 1.00 53.36 C
ATOM 853 CE1 TYR A 189 219.521 161.589 228.020 1.00 53.36 C
ATOM 854 CE2 TYR A 189 219.032 163.433 229.450 1.00 53.36 C
ATOM 855 CZ TYR A 189 219.638 162.923 228.328 1.00 53.36 C
ATOM 856 OH TYR A 189 220.366 163.747 227.504 1.00 53.36 O
ATOM 857 N SER A 190 220.379 159.330 232.740 1.00 61.72 N
ATOM 858 CA SER A 190 221.463 159.925 233.504 1.00 61.72 C
ATOM 859 C SER A 190 222.030 161.128 232.758 1.00 61.72 C
ATOM 860 O SER A 190 221.876 161.267 231.543 1.00 61.72 O
ATOM 861 CB SER A 190 222.561 158.896 233.767 1.00 61.72 C
ATOM 862 OG SER A 190 223.187 158.502 232.559 1.00 61.72 O
ATOM 863 N ARG A 191 222.695 162.008 233.503 1.00 70.75 N
ATOM 864 CA ARG A 191 223.211 163.246 232.936 1.00 70.75 C
ATOM 865 C ARG A 191 224.435 163.696 233.719 1.00 70.75 C
ATOM 866 O ARG A 191 224.864 163.050 234.679 1.00 70.75 O
ATOM 867 CB ARG A 191 222.149 164.349 232.943 1.00 70.75 C
ATOM 868 CG ARG A 191 220.998 164.123 231.993 1.00 70.75 C

ATOM 869 CD ARG A 191 219.979 165.242 232.096 1.00 70.75 C
ATOM 870 NE ARG A 191 220.522 166.523 231.656 1.00 70.75 N
ATOM 871 CZ ARG A 191 219.894 167.686 231.799 1.00 70.75 C
ATOM 872 NH1 ARG A 191 218.701 167.729 232.373 1.00 70.75 N
ATOM 873 NH2 ARG A 191 220.459 168.805 231.368 1.00 70.75 N
ATOM 874 N VAL A 192 224.996 164.824 233.287 1.00 86.36 N
ATOM 875 CA VAL A 192 226.077 165.513 233.981 1.00 86.36 C
ATOM 876 C VAL A 192 225.883 167.004 233.759 1.00 86.36 C
ATOM 877 O VAL A 192 225.973 167.481 232.622 1.00 86.36 O
ATOM 878 CB VAL A 192 227.462 165.069 233.474 1.00 86.36 C
ATOM 879 CG1 VAL A 192 228.556 165.903 234.124 1.00 86.36 C
ATOM 880 CG2 VAL A 192 227.688 163.590 233.724 1.00 86.36 C
ATOM 881 N ILE A 193 225.614 167.758 234.823 1.00 95.83 N
ATOM 882 CA ILE A 193 225.517 169.201 234.647 1.00 95.83 C
ATOM 883 C ILE A 193 226.748 169.871 235.245 1.00 95.83 C
ATOM 884 O ILE A 193 226.728 170.378 236.372 1.00 95.83 O
ATOM 885 CB ILE A 193 224.207 169.743 235.254 1.00 95.83 C
ATOM 886 CG1 ILE A 193 224.085 171.251 235.022 1.00 95.83 C
ATOM 887 CG2 ILE A 193 224.053 169.343 236.725 1.00 95.83 C
ATOM 888 CD1 ILE A 193 222.704 171.796 235.296 1.00 95.83 C
ATOM 889 N ALA A 194 227.829 169.877 234.467 1.00104.14 N
ATOM 890 CA ALA A 194 229.032 170.682 234.653 1.00104.14 C
ATOM 891 C ALA A 194 229.870 170.319 235.876 1.00104.14 C
ATOM 892 O ALA A 194 231.047 170.688 235.941 1.00104.14 O
ATOM 893 CB ALA A 194 228.650 172.163 234.728 1.00104.14 C
ATOM 894 N GLY A 195 229.306 169.599 236.843 1.00102.38 N
ATOM 895 CA GLY A 195 230.113 169.104 237.940 1.00102.38 C
ATOM 896 C GLY A 195 229.600 167.860 238.633 1.00102.38 C
ATOM 897 O GLY A 195 230.203 167.407 239.610 1.00102.38 O
ATOM 898 N THR A 196 228.498 167.291 238.152 1.00 93.29 N
ATOM 899 CA THR A 196 227.779 166.282 238.919 1.00 93.29 C
ATOM 900 C THR A 196 227.114 165.294 237.971 1.00 93.29 C
ATOM 901 O THR A 196 227.275 165.360 236.749 1.00 93.29 O
ATOM 902 CB THR A 196 226.726 166.917 239.842 1.00 93.29 C

ATOM 903 OG1 THR A 196 225.818 167.709 239.066 1.00 93.29 O
ATOM 904 CG2 THR A 196 227.369 167.778 240.924 1.00 93.29 C
ATOM 905 N VAL A 197 226.359 164.368 238.558 1.00 78.88 N
ATOM 906 CA VAL A 197 225.562 163.397 237.819 1.00 78.88 C
ATOM 907 C VAL A 197 224.261 163.181 238.581 1.00 78.88 C
ATOM 908 O VAL A 197 224.271 162.668 239.705 1.00 78.88 O
ATOM 909 CB VAL A 197 226.302 162.062 237.616 1.00 78.88 C
ATOM 910 CG1 VAL A 197 227.470 162.251 236.676 1.00 78.88 C
ATOM 911 CG2 VAL A 197 226.808 161.517 238.943 1.00 78.88 C
ATOM 912 N PHE A 198 223.147 163.590 237.986 1.00 74.12 N
ATOM 913 CA PHE A 198 221.829 163.321 238.535 1.00 74.12 C
ATOM 914 C PHE A 198 221.099 162.355 237.615 1.00 74.12 C
ATOM 915 O PHE A 198 221.108 162.519 236.392 1.00 74.12 O
ATOM 916 CB PHE A 198 221.024 164.612 238.715 1.00 74.12 C
ATOM 917 CG PHE A 198 220.711 165.323 237.431 1.00 74.12 C
ATOM 918 CD1 PHE A 198 221.611 166.220 236.886 1.00 74.12 C
ATOM 919 CD2 PHE A 198 219.504 165.113 236.781 1.00 74.12 C
ATOM 920 CE1 PHE A 198 221.323 166.879 235.708 1.00 74.12 C
ATOM 921 CE2 PHE A 198 219.212 165.770 235.603 1.00 74.12 C
ATOM 922 CZ PHE A 198 220.121 166.656 235.069 1.00 74.12 C
ATOM 923 N VAL A 199 220.472 161.345 238.210 1.00 59.69 N
ATOM 924 CA VAL A 199 219.846 160.277 237.444 1.00 59.69 C
ATOM 925 C VAL A 199 218.336 160.437 237.495 1.00 59.69 C
ATOM 926 O VAL A 199 217.703 160.099 238.499 1.00 59.69 O
ATOM 927 CB VAL A 199 220.261 158.895 237.977 1.00 59.69 C
ATOM 928 CG1 VAL A 199 219.563 157.804 237.194 1.00 59.69 C
ATOM 929 CG2 VAL A 199 221.766 158.729 237.915 1.00 59.69 C
ATOM 930 N ALA A 200 217.748 160.963 236.426 1.00 54.28 N
ATOM 931 CA ALA A 200 216.299 161.033 236.364 1.00 54.28 C
ATOM 932 C ALA A 200 215.709 159.628 236.313 1.00 54.28 C
ATOM 933 O ALA A 200 216.400 158.641 236.050 1.00 54.28 O
ATOM 934 CB ALA A 200 215.849 161.844 235.151 1.00 54.28 C
ATOM 935 N TYR A 201 214.411 159.543 236.582 1.00 56.33 N
ATOM 936 CA TYR A 201 213.693 158.280 236.543 1.00 56.33 C

```
ATOM   937  C   TYR A 201    212.286 158.539 236.029  1.00 56.33           C
ATOM   938  O   TYR A 201    211.786 159.665 236.082  1.00 56.33           O
ATOM   939  CB  TYR A 201    213.672 157.602 237.920  1.00 56.33           C
ATOM   940  CG  TYR A 201    215.019 157.053 238.341  1.00 56.33           C
ATOM   941  CD1 TYR A 201    215.443 155.804 237.915  1.00 56.33           C
ATOM   942  CD2 TYR A 201    215.871 157.790 239.148  1.00 56.33           C
ATOM   943  CE1 TYR A 201    216.671 155.299 238.290  1.00 56.33           C
ATOM   944  CE2 TYR A 201    217.105 157.294 239.525  1.00 56.33           C
ATOM   945  CZ  TYR A 201    217.498 156.047 239.096  1.00 56.33           C
ATOM   946  OH  TYR A 201    218.725 155.549 239.470  1.00 56.33           O
ATOM   947  N   HIS A 202    211.656 157.481 235.516  1.00 55.22           N
ATOM   948  CA  HIS A 202    210.381 157.632 234.821  1.00 55.22           C
ATOM   949  C   HIS A 202    209.305 158.196 235.738  1.00 55.22           C
ATOM   950  O   HIS A 202    208.807 159.306 235.527  1.00 55.22           O
ATOM   951  CB  HIS A 202    209.934 156.289 234.245  1.00 55.22           C
ATOM   952  CG  HIS A 202    208.651 156.363 233.479  1.00 55.22           C
ATOM   953  ND1 HIS A 202    207.418 156.248 234.084  1.00 55.22           N
ATOM   954  CD2 HIS A 202    208.409 156.544 232.160  1.00 55.22           C
ATOM   955  CE1 HIS A 202    206.471 156.353 233.169  1.00 55.22           C
ATOM   956  NE2 HIS A 202    207.045 156.532 231.994  1.00 55.22           N
ATOM   957  N   ARG A 203    208.936 157.442 236.767  1.00 68.37           N
ATOM   958  CA  ARG A 203    207.825 157.795 237.639  1.00 68.37           C
ATOM   959  C   ARG A 203    208.307 157.981 239.074  1.00 68.37           C
ATOM   960  O   ARG A 203    207.568 157.749 240.031  1.00 68.37           O
ATOM   961  CB  ARG A 203    206.737 156.724 237.546  1.00 68.37           C
ATOM   962  CG  ARG A 203    205.427 157.042 238.234  1.00 68.37           C
ATOM   963  CD  ARG A 203    204.431 155.922 238.008  1.00 68.37           C
ATOM   964  NE  ARG A 203    203.984 155.861 236.620  1.00 68.37           N
ATOM   965  CZ  ARG A 203    203.250 154.874 236.119  1.00 68.37           C
ATOM   966  NH1 ARG A 203    202.883 153.864 236.893  1.00 68.37           N
ATOM   967  NH2 ARG A 203    202.884 154.897 234.845  1.00 68.37           N
ATOM   968  N   ASP A 204    209.562 158.399 239.231  1.00 72.76           N
ATOM   969  CA  ASP A 204    210.219 158.495 240.532  1.00 72.76           C
ATOM   970  C   ASP A 204    210.303 157.144 241.234  1.00 72.76           C
```

ATOM 971 O ASP A 204 210.457 157.084 242.458 1.00 72.76 O
ATOM 972 CB ASP A 204 209.524 159.522 241.432 1.00 72.76 C
ATOM 973 CG ASP A 204 209.725 160.946 240.950 1.00 72.76 C
ATOM 974 OD1 ASP A 204 210.766 161.216 240.316 1.00 72.76 O
ATOM 975 OD2 ASP A 204 208.845 161.795 241.208 1.00 72.76 O
ATOM 976 N SER A 205 210.210 156.058 240.472 1.00 72.84 N
ATOM 977 CA SER A 205 210.381 154.704 240.981 1.00 72.84 C
ATOM 978 C SER A 205 211.779 154.248 240.588 1.00 72.84 C
ATOM 979 O SER A 205 212.063 154.046 239.403 1.00 72.84 O
ATOM 980 CB SER A 205 209.317 153.769 240.417 1.00 72.84 C
ATOM 981 OG SER A 205 209.481 153.618 239.018 1.00 72.84 O
ATOM 982 N TYR A 206 212.646 154.079 241.581 1.00 68.11 N
ATOM 983 CA TYR A 206 214.060 153.850 241.318 1.00 68.11 C
ATOM 984 C TYR A 206 214.315 152.445 240.795 1.00 68.11 C
ATOM 985 O TYR A 206 214.948 151.631 241.473 1.00 68.11 O
ATOM 986 CB TYR A 206 214.876 154.093 242.588 1.00 68.11 C
ATOM 987 CG TYR A 206 214.866 155.530 243.045 1.00 68.11 C
ATOM 988 CD1 TYR A 206 215.740 156.458 242.500 1.00 68.11 C
ATOM 989 CD2 TYR A 206 213.968 155.964 244.008 1.00 68.11 C
ATOM 990 CE1 TYR A 206 215.730 157.774 242.910 1.00 68.11 C
ATOM 991 CE2 TYR A 206 213.949 157.278 244.424 1.00 68.11 C
ATOM 992 CZ TYR A 206 214.832 158.179 243.872 1.00 68.11 C
ATOM 993 OH TYR A 206 214.817 159.489 244.284 1.00 68.11 O
ATOM 994 N GLU A 207 213.832 152.149 239.592 1.00 67.94 N
ATOM 995 CA GLU A 207 214.107 150.873 238.951 1.00 67.94 C
ATOM 996 C GLU A 207 214.569 151.112 237.523 1.00 67.94 C
ATOM 997 O GLU A 207 214.113 152.046 236.857 1.00 67.94 O
ATOM 998 CB GLU A 207 212.887 149.953 238.967 1.00 67.94 C
ATOM 999 CG GLU A 207 213.192 148.561 238.449 1.00 67.94 C
ATOM 1000 CD GLU A 207 212.018 147.621 238.575 1.00 67.94 C
ATOM 1001 OE1 GLU A 207 210.942 148.071 239.019 1.00 67.94 O
ATOM 1002 OE2 GLU A 207 212.175 146.428 238.242 1.00 67.94 O
ATOM 1003 N ASN A 208 215.483 150.263 237.067 1.00 66.59 N
ATOM 1004 CA ASN A 208 216.198 150.441 235.805 1.00 66.59 C

ATOM 1005 C ASN A 208 215.550 149.659 234.665 1.00 66.59 C
ATOM 1006 O ASN A 208 216.196 148.858 233.992 1.00 66.59 O
ATOM 1007 CB ASN A 208 217.649 150.035 236.013 1.00 66.59 C
ATOM 1008 CG ASN A 208 218.564 150.564 234.942 1.00 66.59 C
ATOM 1009 OD1 ASN A 208 218.110 151.073 233.916 1.00 66.59 O
ATOM 1010 ND2 ASN A 208 219.874 150.478 235.202 1.00 66.59 N
ATOM 1011 N LYS A 209 214.262 149.899 234.430 1.00 61.57 N
ATOM 1012 CA LYS A 209 213.469 149.087 233.519 1.00 61.57 C
ATOM 1013 C LYS A 209 213.775 149.412 232.058 1.00 61.57 C
ATOM 1014 O LYS A 209 214.563 150.305 231.737 1.00 61.57 O
ATOM 1015 CB LYS A 209 211.982 149.277 233.804 1.00 61.57 C
ATOM 1016 CG LYS A 209 211.553 148.778 235.164 1.00 61.57 C
ATOM 1017 CD LYS A 209 211.769 147.279 235.271 1.00 61.57 C
ATOM 1018 CE LYS A 209 210.803 146.517 234.379 1.00 61.57 C
ATOM 1019 NZ LYS A 209 210.956 145.045 234.536 1.00 61.57 N
ATOM 1020 N THR A 210 213.124 148.671 231.160 1.00 56.29 N
ATOM 1021 CA THR A 210 213.241 148.860 229.716 1.00 56.29 C
ATOM 1022 C THR A 210 211.838 148.960 229.133 1.00 56.29 C
ATOM 1023 O THR A 210 211.114 147.961 229.079 1.00 56.29 O
ATOM 1024 CB THR A 210 214.010 147.712 229.064 1.00 56.29 C
ATOM 1025 OG1 THR A 210 213.292 146.488 229.257 1.00 56.29 O
ATOM 1026 CG2 THR A 210 215.397 147.582 229.674 1.00 56.29 C
ATOM 1027 N MET A 211 211.460 150.154 228.689 1.00 53.45 N
ATOM 1028 CA MET A 211 210.118 150.393 228.184 1.00 53.45 C
ATOM 1029 C MET A 211 209.948 149.809 226.782 1.00 53.45 C
ATOM 1030 O MET A 211 210.865 149.223 226.203 1.00 53.45 O
ATOM 1031 CB MET A 211 209.815 151.888 228.173 1.00 53.45 C
ATOM 1032 CG MET A 211 209.742 152.524 229.549 1.00 53.45 C
ATOM 1033 SD MET A 211 208.401 151.862 230.552 1.00 53.45 S
ATOM 1034 CE MET A 211 209.301 150.753 231.630 1.00 53.45 C
ATOM 1035 N GLN A 212 208.745 149.981 226.239 1.00 49.83 N
ATOM 1036 CA GLN A 212 208.382 149.495 224.916 1.00 49.83 C
ATOM 1037 C GLN A 212 207.823 150.642 224.084 1.00 49.83 C
ATOM 1038 O GLN A 212 207.266 151.602 224.622 1.00 49.83 O

ATOM 1039 CB GLN A 212 207.348 148.367 225.012 1.00 49.83 C
ATOM 1040 CG GLN A 212 206.938 147.763 223.684 1.00 49.83 C
ATOM 1041 CD GLN A 212 208.056 146.990 223.032 1.00 49.83 C
ATOM 1042 OE1 GLN A 212 208.791 146.261 223.696 1.00 49.83 O
ATOM 1043 NE2 GLN A 212 208.190 147.139 221.722 1.00 49.83 N
ATOM 1044 N LEU A 213 207.973 150.539 222.767 1.00 44.43 N
ATOM 1045 CA LEU A 213 207.444 151.553 221.867 1.00 44.43 C
ATOM 1046 C LEU A 213 206.052 151.164 221.377 1.00 44.43 C
ATOM 1047 O LEU A 213 205.633 150.008 221.461 1.00 44.43 O
ATOM 1048 CB LEU A 213 208.384 151.770 220.683 1.00 44.43 C
ATOM 1049 CG LEU A 213 209.600 152.663 220.919 1.00 44.43 C
ATOM 1050 CD1 LEU A 213 210.621 151.962 221.786 1.00 44.43 C
ATOM 1051 CD2 LEU A 213 210.216 153.074 219.599 1.00 44.43 C
ATOM 1052 N MET A 214 205.334 152.150 220.856 1.00 42.76 N
ATOM 1053 CA MET A 214 203.959 151.960 220.419 1.00 42.76 C
ATOM 1054 C MET A 214 203.676 152.933 219.291 1.00 42.76 C
ATOM 1055 O MET A 214 204.472 153.842 219.025 1.00 42.76 O
ATOM 1056 CB MET A 214 202.970 152.178 221.570 1.00 42.76 C
ATOM 1057 CG MET A 214 203.063 151.157 222.688 1.00 42.76 C
ATOM 1058 SD MET A 214 201.905 151.510 224.024 1.00 42.76 S
ATOM 1059 CE MET A 214 202.341 150.229 225.196 1.00 42.76 C
ATOM 1060 N PRO A 215 202.549 152.773 218.604 1.00 37.60 N
ATOM 1061 CA PRO A 215 202.155 153.756 217.593 1.00 37.60 C
ATOM 1062 C PRO A 215 201.528 154.982 218.230 1.00 37.60 C
ATOM 1063 O PRO A 215 201.089 154.964 219.382 1.00 37.60 O
ATOM 1064 CB PRO A 215 201.134 152.994 216.743 1.00 37.60 C
ATOM 1065 CG PRO A 215 200.562 151.990 217.674 1.00 37.60 C
ATOM 1066 CD PRO A 215 201.681 151.585 218.590 1.00 37.60 C
ATOM 1067 N ASP A 216 201.484 156.059 217.458 1.00 43.93 N
ATOM 1068 CA ASP A 216 201.042 157.345 217.968 1.00 43.93 C
ATOM 1069 C ASP A 216 199.812 157.826 217.212 1.00 43.93 C
ATOM 1070 O ASP A 216 199.550 157.436 216.071 1.00 43.93 O
ATOM 1071 CB ASP A 216 202.169 158.378 217.877 1.00 43.93 C
ATOM 1072 CG ASP A 216 201.856 159.647 218.636 1.00 43.93 C

ATOM 1073 OD1 ASP A 216 201.901 159.618 219.883 1.00 43.93 O
ATOM 1074 OD2 ASP A 216 201.560 160.672 217.989 1.00 43.93 O
ATOM 1075 N ASP A 217 199.059 158.699 217.876 1.00 48.37 N
ATOM 1076 CA ASP A 217 197.795 159.209 217.370 1.00 48.37 C
ATOM 1077 C ASP A 217 197.945 160.073 216.130 1.00 48.37 C
ATOM 1078 O ASP A 217 196.939 160.352 215.470 1.00 48.37 O
ATOM 1079 CB ASP A 217 197.107 160.030 218.459 1.00 48.37 C
ATOM 1080 CG ASP A 217 196.778 159.208 219.681 1.00 48.37 C
ATOM 1081 OD1 ASP A 217 196.500 158.000 219.533 1.00 48.37 O
ATOM 1082 OD2 ASP A 217 196.826 159.770 220.794 1.00 48.37 O
ATOM 1083 N TYR A 218 199.155 160.513 215.799 1.00 43.71 N
ATOM 1084 CA TYR A 218 199.360 161.490 214.735 1.00 43.71 C
ATOM 1085 C TYR A 218 200.114 160.791 213.612 1.00 43.71 C
ATOM 1086 O TYR A 218 201.331 160.903 213.479 1.00 43.71 O
ATOM 1087 CB TYR A 218 200.122 162.701 215.273 1.00 43.71 C
ATOM 1088 CG TYR A 218 199.374 163.451 216.350 1.00 43.71 C
ATOM 1089 CD1 TYR A 218 198.000 163.330 216.479 1.00 43.71 C
ATOM 1090 CD2 TYR A 218 200.044 164.246 217.263 1.00 43.71 C
ATOM 1091 CE1 TYR A 218 197.314 163.990 217.468 1.00 43.71 C
ATOM 1092 CE2 TYR A 218 199.363 164.927 218.252 1.00 43.71 C
ATOM 1093 CZ TYR A 218 197.997 164.785 218.356 1.00 43.71 C
ATOM 1094 OH TYR A 218 197.308 165.444 219.345 1.00 43.71 O
ATOM 1095 N SER A 219 199.367 160.071 212.786 1.00 40.40 N
ATOM 1096 CA SER A 219 199.939 159.363 211.655 1.00 40.40 C
ATOM 1097 C SER A 219 199.783 160.229 210.411 1.00 40.40 C
ATOM 1098 O SER A 219 199.362 161.387 210.484 1.00 40.40 O
ATOM 1099 CB SER A 219 199.283 157.995 211.506 1.00 40.40 C
ATOM 1100 OG SER A 219 199.533 157.195 212.647 1.00 40.40 O
ATOM 1101 N ASN A 220 200.114 159.677 209.250 1.00 35.06 N
ATOM 1102 CA ASN A 220 200.095 160.461 208.021 1.00 35.06 C
ATOM 1103 C ASN A 220 200.412 159.515 206.871 1.00 35.06 C
ATOM 1104 O ASN A 220 200.704 158.333 207.080 1.00 35.06 O
ATOM 1105 CB ASN A 220 201.109 161.601 208.081 1.00 35.06 C
ATOM 1106 CG ASN A 220 200.659 162.812 207.311 1.00 35.06 C

ATOM 1107 OD1 ASN A 220 201.271 163.875 207.391 1.00 35.06 O
ATOM 1108 ND2 ASN A 220 199.549 162.678 206.602 1.00 35.06 N
ATOM 1109 N THR A 221 200.341 160.045 205.646 1.00 35.53 N
ATOM 1110 CA THR A 221 200.805 159.276 204.495 1.00 35.53 C
ATOM 1111 C THR A 221 202.291 158.975 204.615 1.00 35.53 C
ATOM 1112 O THR A 221 202.732 157.859 204.325 1.00 35.53 O
ATOM 1113 CB THR A 221 200.486 160.011 203.190 1.00 35.53 C
ATOM 1114 OG1 THR A 221 200.892 159.210 202.073 1.00 35.53 O
ATOM 1115 CG2 THR A 221 201.171 161.371 203.124 1.00 35.53 C
ATOM 1116 N HIS A 222 203.089 159.965 205.032 1.00 36.09 N
ATOM 1117 CA HIS A 222 204.443 159.672 205.487 1.00 36.09 C
ATOM 1118 C HIS A 222 204.828 160.721 206.535 1.00 36.09 C
ATOM 1119 O HIS A 222 205.466 161.740 206.260 1.00 36.09 O
ATOM 1120 CB HIS A 222 205.411 159.642 204.305 1.00 36.09 C
ATOM 1121 CG HIS A 222 205.362 160.874 203.454 1.00 36.09 C
ATOM 1122 ND1 HIS A 222 206.134 161.986 203.712 1.00 36.09 N
ATOM 1123 CD2 HIS A 222 204.622 161.177 202.361 1.00 36.09 C
ATOM 1124 CE1 HIS A 222 205.882 162.914 202.806 1.00 36.09 C
ATOM 1125 NE2 HIS A 222 204.966 162.449 201.977 1.00 36.09 N
ATOM 1126 N SER A 223 204.412 160.470 207.780 1.00 36.47 N
ATOM 1127 CA SER A 223 204.965 161.235 208.903 1.00 36.47 C
ATOM 1128 C SER A 223 204.952 160.452 210.210 1.00 36.47 C
ATOM 1129 O SER A 223 204.939 161.092 211.266 1.00 36.47 O
ATOM 1130 CB SER A 223 204.207 162.554 209.066 1.00 36.47 C
ATOM 1131 OG SER A 223 204.711 163.300 210.159 1.00 36.47 O
ATOM 1132 N THR A 224 204.931 159.121 210.192 1.00 37.10 N
ATOM 1133 CA THR A 224 204.579 158.347 211.375 1.00 37.10 C
ATOM 1134 C THR A 224 205.561 158.587 212.516 1.00 37.10 C
ATOM 1135 O THR A 224 206.757 158.801 212.312 1.00 37.10 O
ATOM 1136 CB THR A 224 204.540 156.858 211.048 1.00 37.10 C
ATOM 1137 OG1 THR A 224 204.036 156.136 212.178 1.00 37.10 O
ATOM 1138 CG2 THR A 224 205.932 156.359 210.725 1.00 37.10 C
ATOM 1139 N ARG A 225 205.036 158.532 213.737 1.00 37.92 N
ATOM 1140 CA ARG A 225 205.837 158.753 214.931 1.00 37.92 C

ATOM 1141 C ARG A 225 205.475 157.707 215.969 1.00 37.92 C
ATOM 1142 O ARG A 225 204.313 157.313 216.084 1.00 37.92 O
ATOM 1143 CB ARG A 225 205.629 160.158 215.505 1.00 37.92 C
ATOM 1144 CG ARG A 225 206.467 160.447 216.743 1.00 37.92 C
ATOM 1145 CD ARG A 225 206.328 161.896 217.193 1.00 37.92 C
ATOM 1146 NE ARG A 225 204.984 162.221 217.656 1.00 37.92 N
ATOM 1147 CZ ARG A 225 204.568 162.054 218.905 1.00 37.92 C
ATOM 1148 NH1 ARG A 225 203.328 162.374 219.241 1.00 37.92 N
ATOM 1149 NH2 ARG A 225 205.397 161.578 219.821 1.00 37.92 N
ATOM 1150 N TYR A 226 206.476 157.258 216.712 1.00 40.03 N
ATOM 1151 CA TYR A 226 206.299 156.287 217.778 1.00 40.03 C
ATOM 1152 C TYR A 226 206.591 156.949 219.117 1.00 40.03 C
ATOM 1153 O TYR A 226 207.180 158.029 219.187 1.00 40.03 O
ATOM 1154 CB TYR A 226 207.210 155.079 217.552 1.00 40.03 C
ATOM 1155 CG TYR A 226 206.880 154.317 216.292 1.00 40.03 C
ATOM 1156 CD1 TYR A 226 205.874 153.364 216.277 1.00 40.03 C
ATOM 1157 CD2 TYR A 226 207.559 154.567 215.111 1.00 40.03 C
ATOM 1158 CE1 TYR A 226 205.567 152.671 215.125 1.00 40.03 C
ATOM 1159 CE2 TYR A 226 207.258 153.881 213.956 1.00 40.03 C
ATOM 1160 CZ TYR A 226 206.262 152.935 213.968 1.00 40.03 C
ATOM 1161 OH TYR A 226 205.960 152.251 212.817 1.00 40.03 O
ATOM 1162 N VAL A 227 206.175 156.289 220.194 1.00 38.23 N
ATOM 1163 CA VAL A 227 206.310 156.876 221.521 1.00 38.23 C
ATOM 1164 C VAL A 227 206.158 155.795 222.582 1.00 38.23 C
ATOM 1165 O VAL A 227 205.492 154.780 222.357 1.00 38.23 O
ATOM 1166 CB VAL A 227 205.282 158.003 221.725 1.00 38.23 C
ATOM 1167 CG1 VAL A 227 203.879 157.438 221.721 1.00 38.23 C
ATOM 1168 CG2 VAL A 227 205.556 158.751 223.013 1.00 38.23 C
ATOM 1169 N THR A 228 206.779 156.003 223.742 1.00 40.69 N
ATOM 1170 CA THR A 228 206.687 155.055 224.847 1.00 40.69 C
ATOM 1171 C THR A 228 205.558 155.413 225.808 1.00 40.69 C
ATOM 1172 O THR A 228 204.645 154.613 226.028 1.00 40.69 O
ATOM 1173 CB THR A 228 208.016 154.995 225.604 1.00 40.69 C
ATOM 1174 OG1 THR A 228 209.035 154.468 224.748 1.00 40.69 O

ATOM 1175 CG2 THR A 228 207.879 154.126 226.835 1.00 40.69 C
ATOM 1176 N VAL A 229 205.610 156.610 226.386 1.00 41.60 N
ATOM 1177 CA VAL A 229 204.629 157.042 227.375 1.00 41.60 C
ATOM 1178 C VAL A 229 203.481 157.688 226.608 1.00 41.60 C
ATOM 1179 O VAL A 229 203.603 158.805 226.105 1.00 41.60 O
ATOM 1180 CB VAL A 229 205.240 158.000 228.395 1.00 41.60 C
ATOM 1181 CG1 VAL A 229 204.203 158.397 229.427 1.00 41.60 C
ATOM 1182 CG2 VAL A 229 206.452 157.366 229.045 1.00 41.60 C
ATOM 1183 N LYS A 230 202.356 156.979 226.520 1.00 54.05 N
ATOM 1184 CA LYS A 230 201.273 157.426 225.652 1.00 54.05 C
ATOM 1185 C LYS A 230 200.582 158.665 226.208 1.00 54.05 C
ATOM 1186 O LYS A 230 200.628 159.740 225.600 1.00 54.05 O
ATOM 1187 CB LYS A 230 200.269 156.291 225.446 1.00 54.05 C
ATOM 1188 CG LYS A 230 199.121 156.637 224.511 1.00 54.05 C
ATOM 1189 CD LYS A 230 199.617 156.954 223.112 1.00 54.05 C
ATOM 1190 CE LYS A 230 200.251 155.736 222.467 1.00 54.05 C
ATOM 1191 NZ LYS A 230 199.248 154.673 222.193 1.00 54.05 N
ATOM 1192 N ASP A 231 199.932 158.539 227.366 1.00 68.23 N
ATOM 1193 CA ASP A 231 199.060 159.617 227.816 1.00 68.23 C
ATOM 1194 C ASP A 231 199.699 160.585 228.804 1.00 68.23 C
ATOM 1195 O ASP A 231 199.922 161.753 228.471 1.00 68.23 O
ATOM 1196 CB ASP A 231 197.797 159.026 228.447 1.00 68.23 C
ATOM 1197 CG ASP A 231 196.796 160.090 228.852 1.00 68.23 C
ATOM 1198 OD1 ASP A 231 196.132 160.656 227.958 1.00 68.23 O
ATOM 1199 OD2 ASP A 231 196.674 160.362 230.065 1.00 68.23 O
ATOM 1200 N GLN A 232 200.021 160.110 230.008 1.00 74.49 N
ATOM 1201 CA GLN A 232 200.337 161.030 231.094 1.00 74.49 C
ATOM 1202 C GLN A 232 200.623 160.265 232.383 1.00 74.49 C
ATOM 1203 O GLN A 232 200.463 159.042 232.431 1.00 74.49 O
ATOM 1204 CB GLN A 232 199.168 162.007 231.282 1.00 74.49 C
ATOM 1205 CG GLN A 232 199.408 163.200 232.193 1.00 74.49 C
ATOM 1206 CD GLN A 232 198.187 164.095 232.290 1.00 74.49 C
ATOM 1207 OE1 GLN A 232 197.138 163.798 231.716 1.00 74.49 O
ATOM 1208 NE2 GLN A 232 198.316 165.197 233.017 1.00 74.49 N

ATOM 1209 N TRP A 233 201.052 160.971 233.429 1.00 78.14 N
ATOM 1210 CA TRP A 233 201.019 160.430 234.786 1.00 78.14 C
ATOM 1211 C TRP A 233 200.745 161.586 235.738 1.00 78.14 C
ATOM 1212 O TRP A 233 201.625 162.421 235.970 1.00 78.14 O
ATOM 1213 CB TRP A 233 202.317 159.717 235.146 1.00 78.14 C
ATOM 1214 CG TRP A 233 202.248 159.104 236.504 1.00 78.14 C
ATOM 1215 CD1 TRP A 233 202.854 159.552 237.641 1.00 78.14 C
ATOM 1216 CD2 TRP A 233 201.488 157.952 236.880 1.00 78.14 C
ATOM 1217 NE1 TRP A 233 202.535 158.736 238.699 1.00 78.14 N
ATOM 1218 CE2 TRP A 233 201.694 157.748 238.258 1.00 78.14 C
ATOM 1219 CE3 TRP A 233 200.659 157.068 236.183 1.00 78.14 C
ATOM 1220 CZ2 TRP A 233 201.107 156.693 238.952 1.00 78.14 C
ATOM 1221 CZ3 TRP A 233 200.074 156.024 236.873 1.00 78.14 C
ATOM 1222 CH2 TRP A 233 200.300 155.845 238.243 1.00 78.14 C
ATOM 1223 N HIS A 234 199.529 161.636 236.281 1.00 79.86 N
ATOM 1224 CA HIS A 234 199.089 162.740 237.129 1.00 79.86 C
ATOM 1225 C HIS A 234 198.293 162.225 238.323 1.00 79.86 C
ATOM 1226 O HIS A 234 197.253 162.785 238.686 1.00 79.86 O
ATOM 1227 CB HIS A 234 198.272 163.749 236.322 1.00 79.86 C
ATOM 1228 CG HIS A 234 197.010 163.182 235.748 1.00 79.86 C
ATOM 1229 ND1 HIS A 234 196.999 162.378 234.629 1.00 79.86 N
ATOM 1230 CD2 HIS A 234 195.718 163.311 236.132 1.00 79.86 C
ATOM 1231 CE1 HIS A 234 195.755 162.029 234.353 1.00 79.86 C
ATOM 1232 NE2 HIS A 234 194.959 162.583 235.249 1.00 79.86 N
ATOM 1233 N SER A 235 198.774 161.160 238.960 1.00 83.73 N
ATOM 1234 CA SER A 235 198.059 160.590 240.092 1.00 83.73 C
ATOM 1235 C SER A 235 197.996 161.583 241.251 1.00 83.73 C
ATOM 1236 O SER A 235 198.796 162.518 241.353 1.00 83.73 O
ATOM 1237 CB SER A 235 198.720 159.290 240.545 1.00 83.73 C
ATOM 1238 OG SER A 235 198.602 158.294 239.546 1.00 83.73 O
ATOM 1239 N ARG A 236 197.020 161.366 242.135 1.00 86.32 N
ATOM 1240 CA ARG A 236 196.749 162.323 243.202 1.00 86.32 C
ATOM 1241 C ARG A 236 197.898 162.373 244.202 1.00 86.32 C
ATOM 1242 O ARG A 236 198.518 163.423 244.404 1.00 86.32 O

ATOM 1243 CB ARG A 236 195.436 161.963 243.904 1.00 86.32 C
ATOM 1244 CG ARG A 236 194.900 163.031 244.856 1.00 86.32 C
ATOM 1245 CD ARG A 236 195.486 162.925 246.256 1.00 86.32 C
ATOM 1246 NE ARG A 236 195.296 161.602 246.844 1.00 86.32 N
ATOM 1247 CZ ARG A 236 194.179 161.204 247.444 1.00 86.32 C
ATOM 1248 NH1 ARG A 236 193.144 162.027 247.536 1.00 86.32 N
ATOM 1249 NH2 ARG A 236 194.098 159.982 247.952 1.00 86.32 N
ATOM 1250 N GLY A 237 198.190 161.249 244.841 1.00 86.87 N
ATOM 1251 CA GLY A 237 199.203 161.198 245.871 1.00 86.87 C
ATOM 1252 C GLY A 237 198.619 161.331 247.263 1.00 86.87 C
ATOM 1253 O GLY A 237 197.438 161.081 247.510 1.00 86.87 O
ATOM 1254 N SER A 238 199.481 161.731 248.191 1.00 82.05 N
ATOM 1255 CA SER A 238 199.079 161.931 249.574 1.00 82.05 C
ATOM 1256 C SER A 238 198.634 163.370 249.798 1.00 82.05 C
ATOM 1257 O SER A 238 199.070 164.292 249.104 1.00 82.05 O
ATOM 1258 CB SER A 238 200.226 161.589 250.525 1.00 82.05 C
ATOM 1259 OG SER A 238 201.301 162.497 250.369 1.00 82.05 O
ATOM 1260 N THR A 239 197.755 163.553 250.779 1.00 78.57 N
ATOM 1261 CA THR A 239 197.242 164.875 251.103 1.00 78.57 C
ATOM 1262 C THR A 239 198.243 165.646 251.952 1.00 78.57 C
ATOM 1263 O THR A 239 198.862 165.093 252.865 1.00 78.57 O
ATOM 1264 CB THR A 239 195.910 164.768 251.843 1.00 78.57 C
ATOM 1265 OG1 THR A 239 196.096 164.032 253.058 1.00 78.57 O
ATOM 1266 CG2 THR A 239 194.879 164.063 250.982 1.00 78.57 C
ATOM 1267 N TRP A 240 198.401 166.934 251.639 1.00 71.98 N
ATOM 1268 CA TRP A 240 199.273 167.829 252.399 1.00 71.98 C
ATOM 1269 C TRP A 240 200.737 167.408 252.269 1.00 71.98 C
ATOM 1270 O TRP A 240 201.472 167.335 253.254 1.00 71.98 O
ATOM 1271 CB TRP A 240 198.855 167.889 253.870 1.00 71.98 C
ATOM 1272 CG TRP A 240 197.518 168.508 254.109 1.00 71.98 C
ATOM 1273 CD1 TRP A 240 196.724 169.134 253.195 1.00 71.98 C
ATOM 1274 CD2 TRP A 240 196.813 168.558 255.353 1.00 71.98 C
ATOM 1275 NE1 TRP A 240 195.568 169.572 253.793 1.00 71.98 N
ATOM 1276 CE2 TRP A 240 195.600 169.230 255.119 1.00 71.98 C

ATOM 1277 CE3 TRP A 240 197.093 168.100 256.643 1.00 71.98 C
ATOM 1278 CZ2 TRP A 240 194.668 169.455 256.125 1.00 71.98 C
ATOM 1279 CZ3 TRP A 240 196.167 168.324 257.639 1.00 71.98 C
ATOM 1280 CH2 TRP A 240 194.970 168.995 257.376 1.00 71.98 C
ATOM 1281 N LEU A 241 201.158 167.128 251.038 1.00 75.66 N
ATOM 1282 CA LEU A 241 202.524 166.683 250.787 1.00 75.66 C
ATOM 1283 C LEU A 241 202.974 167.233 249.443 1.00 75.66 C
ATOM 1284 O LEU A 241 202.302 167.025 248.429 1.00 75.66 O
ATOM 1285 CB LEU A 241 202.618 165.157 250.815 1.00 75.66 C
ATOM 1286 CG LEU A 241 204.017 164.538 250.801 1.00 75.66 C
ATOM 1287 CD1 LEU A 241 204.007 163.210 251.537 1.00 75.66 C
ATOM 1288 CD2 LEU A 241 204.518 164.351 249.379 1.00 75.66 C
ATOM 1289 N TYR A 242 204.107 167.928 249.443 1.00 72.77 N
ATOM 1290 CA TYR A 242 204.619 168.600 248.254 1.00 72.77 C
ATOM 1291 C TYR A 242 205.552 167.657 247.505 1.00 72.77 C
ATOM 1292 O TYR A 242 206.677 167.409 247.948 1.00 72.77 O
ATOM 1293 CB TYR A 242 205.348 169.875 248.659 1.00 72.77 C
ATOM 1294 CG TYR A 242 205.886 170.677 247.504 1.00 72.77 C
ATOM 1295 CD1 TYR A 242 205.062 171.521 246.778 1.00 72.77 C
ATOM 1296 CD2 TYR A 242 207.218 170.583 247.136 1.00 72.77 C
ATOM 1297 CE1 TYR A 242 205.553 172.258 245.726 1.00 72.77 C
ATOM 1298 CE2 TYR A 242 207.715 171.313 246.082 1.00 72.77 C
ATOM 1299 CZ TYR A 242 206.880 172.149 245.382 1.00 72.77 C
ATOM 1300 OH TYR A 242 207.373 172.881 244.331 1.00 72.77 O
ATOM 1301 N ARG A 243 205.098 167.138 246.366 1.00 72.87 N
ATOM 1302 CA ARG A 243 205.874 166.183 245.589 1.00 72.87 C
ATOM 1303 C ARG A 243 205.964 166.631 244.138 1.00 72.87 C
ATOM 1304 O ARG A 243 204.982 167.109 243.564 1.00 72.87 O
ATOM 1305 CB ARG A 243 205.259 164.785 245.658 1.00 72.87 C
ATOM 1306 CG ARG A 243 203.910 164.677 244.978 1.00 72.87 C
ATOM 1307 CD ARG A 243 203.352 163.270 245.085 1.00 72.87 C
ATOM 1308 NE ARG A 243 202.032 163.166 244.472 1.00 72.87 N
ATOM 1309 CZ ARG A 243 201.828 162.880 243.191 1.00 72.87 C
ATOM 1310 NH1 ARG A 243 202.858 162.664 242.390 1.00 72.87 N

ATOM 1311 NH2 ARG A 243 200.596 162.806 242.710 1.00 72.87 N
ATOM 1312 N GLU A 244 207.149 166.468 243.553 1.00 67.82 N
ATOM 1313 CA GLU A 244 207.390 166.740 242.144 1.00 67.82 C
ATOM 1314 C GLU A 244 207.762 165.442 241.442 1.00 67.82 C
ATOM 1315 O GLU A 244 208.515 164.627 241.984 1.00 67.82 O
ATOM 1316 CB GLU A 244 208.500 167.777 241.957 1.00 67.82 C
ATOM 1317 CG GLU A 244 209.880 167.276 242.325 1.00 67.82 C
ATOM 1318 CD GLU A 244 210.155 167.390 243.808 1.00 67.82 C
ATOM 1319 OE1 GLU A 244 209.188 167.565 244.577 1.00 67.82 O
ATOM 1320 OE2 GLU A 244 211.335 167.305 244.206 1.00 67.82 O
ATOM 1321 N THR A 245 207.236 165.251 240.235 1.00 59.55 N
ATOM 1322 CA THR A 245 207.375 163.991 239.523 1.00 59.55 C
ATOM 1323 C THR A 245 207.991 164.211 238.151 1.00 59.55 C
ATOM 1324 O THR A 245 207.964 165.317 237.607 1.00 59.55 O
ATOM 1325 CB THR A 245 206.025 163.289 239.366 1.00 59.55 C
ATOM 1326 OG1 THR A 245 205.124 164.137 238.645 1.00 59.55 O
ATOM 1327 CG2 THR A 245 205.441 162.970 240.722 1.00 59.55 C
ATOM 1328 N CYS A 246 208.548 163.138 237.603 1.00 51.18 N
ATOM 1329 CA CYS A 246 209.113 163.126 236.264 1.00 51.18 C
ATOM 1330 C CYS A 246 208.199 162.359 235.318 1.00 51.18 C
ATOM 1331 O CYS A 246 207.383 161.534 235.734 1.00 51.18 O
ATOM 1332 CB CYS A 246 210.507 162.497 236.272 1.00 51.18 C
ATOM 1333 SG CYS A 246 211.734 163.418 237.222 1.00 51.18 S
ATOM 1334 N ASN A 247 208.330 162.659 234.032 1.00 44.80 N
ATOM 1335 CA ASN A 247 207.506 162.039 233.001 1.00 44.80 C
ATOM 1336 C ASN A 247 208.367 161.661 231.801 1.00 44.80 C
ATOM 1337 O ASN A 247 208.085 162.053 230.668 1.00 44.80 O
ATOM 1338 CB ASN A 247 206.360 162.958 232.589 1.00 44.80 C
ATOM 1339 CG ASN A 247 205.321 162.248 231.747 1.00 44.80 C
ATOM 1340 OD1 ASN A 247 205.444 161.057 231.466 1.00 44.80 O
ATOM 1341 ND2 ASN A 247 204.293 162.977 231.335 1.00 44.80 N
ATOM 1342 N LEU A 248 209.466 160.944 232.060 1.00 45.00 N
ATOM 1343 CA LEU A 248 210.400 160.534 231.014 1.00 45.00 C
ATOM 1344 C LEU A 248 209.676 159.888 229.841 1.00 45.00 C

ATOM 1345 O LEU A 248 208.699 159.155 230.009 1.00 45.00 O
ATOM 1346 CB LEU A 248 211.434 159.555 231.571 1.00 45.00 C
ATOM 1347 CG LEU A 248 212.690 160.151 232.199 1.00 45.00 C
ATOM 1348 CD1 LEU A 248 213.472 160.904 231.145 1.00 45.00 C
ATOM 1349 CD2 LEU A 248 212.344 161.059 233.363 1.00 45.00 C
ATOM 1350 N ASN A 249 210.168 160.174 228.640 1.00 40.42 N
ATOM 1351 CA ASN A 249 209.486 159.777 227.418 1.00 40.42 C
ATOM 1352 C ASN A 249 210.439 159.863 226.236 1.00 40.42 C
ATOM 1353 O ASN A 249 211.163 160.852 226.087 1.00 40.42 O
ATOM 1354 CB ASN A 249 208.261 160.661 227.186 1.00 40.42 C
ATOM 1355 CG ASN A 249 207.412 160.193 226.024 1.00 40.42 C
ATOM 1356 OD1 ASN A 249 207.733 159.211 225.359 1.00 40.42 O
ATOM 1357 ND2 ASN A 249 206.319 160.901 225.770 1.00 40.42 N
ATOM 1358 N CYS A 250 210.443 158.836 225.394 1.00 39.26 N
ATOM 1359 CA CYS A 250 211.304 158.775 224.222 1.00 39.26 C
ATOM 1360 C CYS A 250 210.468 158.447 222.996 1.00 39.26 C
ATOM 1361 O CYS A 250 209.494 157.695 223.081 1.00 39.26 O
ATOM 1362 CB CYS A 250 212.404 157.735 224.406 1.00 39.26 C
ATOM 1363 SG CYS A 250 211.773 156.079 224.647 1.00 39.26 S
ATOM 1364 N MET A 251 210.855 159.011 221.855 1.00 38.67 N
ATOM 1365 CA MET A 251 210.060 158.898 220.643 1.00 38.67 C
ATOM 1366 C MET A 251 210.980 158.877 219.433 1.00 38.67 C
ATOM 1367 O MET A 251 211.987 159.587 219.400 1.00 38.67 O
ATOM 1368 CB MET A 251 209.058 160.050 220.545 1.00 38.67 C
ATOM 1369 CG MET A 251 209.693 161.421 220.475 1.00 38.67 C
ATOM 1370 SD MET A 251 208.462 162.732 220.550 1.00 38.67 S
ATOM 1371 CE MET A 251 207.985 162.632 222.272 1.00 38.67 C
ATOM 1372 N VAL A 252 210.623 158.064 218.440 1.00 56.06 N
ATOM 1373 CA VAL A 252 211.448 157.846 217.252 1.00 56.06 C
ATOM 1374 C VAL A 252 210.569 158.142 216.041 1.00 56.06 C
ATOM 1375 O VAL A 252 209.861 157.264 215.540 1.00 56.06 O
ATOM 1376 CB VAL A 252 212.013 156.425 217.184 1.00 56.06 C
ATOM 1377 CG1 VAL A 252 212.753 156.217 215.881 1.00 56.06 C
ATOM 1378 CG2 VAL A 252 212.918 156.158 218.367 1.00 56.06 C

ATOM 1379 N THR A 253 210.619 159.376 215.553 1.00 23.11 N
ATOM 1380 CA THR A 253 209.825 159.748 214.393 1.00 23.11 C
ATOM 1381 C THR A 253 210.480 159.253 213.107 1.00 23.11 C
ATOM 1382 O THR A 253 211.664 158.917 213.070 1.00 23.11 O
ATOM 1383 CB THR A 253 209.642 161.262 214.331 1.00 23.11 C
ATOM 1384 OG1 THR A 253 208.768 161.592 213.246 1.00 23.11 O
ATOM 1385 CG2 THR A 253 210.973 161.944 214.119 1.00 23.11 C
ATOM 1386 N ILE A 254 209.684 159.210 212.038 1.00 31.93 N
ATOM 1387 CA ILE A 254 210.178 158.823 210.721 1.00 31.93 C
ATOM 1388 C ILE A 254 209.576 159.731 209.658 1.00 31.93 C
ATOM 1389 O ILE A 254 208.450 159.510 209.203 1.00 31.93 O
ATOM 1390 CB ILE A 254 209.860 157.350 210.417 1.00 31.93 C
ATOM 1391 CG1 ILE A 254 210.611 156.432 211.377 1.00 31.93 C
ATOM 1392 CG2 ILE A 254 210.200 157.021 208.979 1.00 31.93 C
ATOM 1393 CD1 ILE A 254 210.169 154.997 211.303 1.00 31.93 C
ATOM 1394 N THR A 255 210.325 160.744 209.244 1.00 34.08 N
ATOM 1395 CA THR A 255 209.879 161.700 208.247 1.00 34.08 C
ATOM 1396 C THR A 255 210.456 161.340 206.881 1.00 34.08 C
ATOM 1397 O THR A 255 211.052 160.276 206.693 1.00 34.08 O
ATOM 1398 CB THR A 255 210.274 163.111 208.670 1.00 34.08 C
ATOM 1399 OG1 THR A 255 211.700 163.216 208.700 1.00 34.08 O
ATOM 1400 CG2 THR A 255 209.738 163.401 210.051 1.00 34.08 C
ATOM 1401 N THR A 256 210.280 162.237 205.910 1.00 34.80 N
ATOM 1402 CA THR A 256 210.859 162.075 204.575 1.00 34.80 C
ATOM 1403 C THR A 256 211.456 163.418 204.167 1.00 34.80 C
ATOM 1404 O THR A 256 210.720 164.379 203.932 1.00 34.80 O
ATOM 1405 CB THR A 256 209.820 161.614 203.563 1.00 34.80 C
ATOM 1406 OG1 THR A 256 208.818 162.628 203.424 1.00 34.80 O
ATOM 1407 CG2 THR A 256 209.162 160.330 204.024 1.00 34.80 C
ATOM 1408 N ALA A 257 212.782 163.480 204.079 1.00 37.87 N
ATOM 1409 CA ALA A 257 213.446 164.719 203.710 1.00 37.87 C
ATOM 1410 C ALA A 257 213.346 164.950 202.206 1.00 37.87 C
ATOM 1411 O ALA A 257 212.957 164.070 201.437 1.00 37.87 O
ATOM 1412 CB ALA A 257 214.910 164.694 204.141 1.00 37.87 C

ATOM 1413 N ARG A 258 213.710 166.163 201.785 1.00 46.88 N
ATOM 1414 CA ARG A 258 213.650 166.516 200.368 1.00 46.88 C
ATOM 1415 C ARG A 258 214.650 167.643 200.115 1.00 46.88 C
ATOM 1416 O ARG A 258 214.371 168.800 200.438 1.00 46.88 O
ATOM 1417 CB ARG A 258 212.242 166.920 199.969 1.00 46.88 C
ATOM 1418 CG ARG A 258 212.079 167.226 198.496 1.00 46.88 C
ATOM 1419 CD ARG A 258 210.625 167.478 198.162 1.00 46.88 C
ATOM 1420 NE ARG A 258 210.434 167.800 196.754 1.00 46.88 N
ATOM 1421 CZ ARG A 258 209.249 168.025 196.200 1.00 46.88 C
ATOM 1422 NH1 ARG A 258 209.161 168.313 194.911 1.00 46.88 N
ATOM 1423 NH2 ARG A 258 208.150 167.959 196.937 1.00 46.88 N
ATOM 1424 N SER A 259 215.795 167.296 199.539 1.00 53.64 N
ATOM 1425 CA SER A 259 216.806 168.270 199.159 1.00 53.64 C
ATOM 1426 C SER A 259 216.802 168.450 197.648 1.00 53.64 C
ATOM 1427 O SER A 259 216.410 167.551 196.901 1.00 53.64 O
ATOM 1428 CB SER A 259 218.195 167.834 199.624 1.00 53.64 C
ATOM 1429 OG SER A 259 218.619 166.678 198.926 1.00 53.64 O
ATOM 1430 N LYS A 260 217.251 169.621 197.202 1.00 58.66 N
ATOM 1431 CA LYS A 260 217.239 169.956 195.787 1.00 58.66 C
ATOM 1432 C LYS A 260 218.601 170.500 195.379 1.00 58.66 C
ATOM 1433 O LYS A 260 219.392 170.932 196.221 1.00 58.66 O
ATOM 1434 CB LYS A 260 216.126 170.961 195.460 1.00 58.66 C
ATOM 1435 CG LYS A 260 216.277 172.325 196.105 1.00 58.66 C
ATOM 1436 CD LYS A 260 216.962 173.300 195.168 1.00 58.66 C
ATOM 1437 CE LYS A 260 216.995 174.694 195.754 1.00 58.66 C
ATOM 1438 NZ LYS A 260 217.677 175.654 194.845 1.00 58.66 N
ATOM 1439 N TYR A 261 218.864 170.446 194.075 1.00 65.61 N
ATOM 1440 CA TYR A 261 220.164 170.794 193.520 1.00 65.61 C
ATOM 1441 C TYR A 261 220.544 172.221 193.915 1.00 65.61 C
ATOM 1442 O TYR A 261 219.675 173.099 193.964 1.00 65.61 O
ATOM 1443 CB TYR A 261 220.113 170.651 191.996 1.00 65.61 C
ATOM 1444 CG TYR A 261 221.403 170.914 191.253 1.00 65.61 C
ATOM 1445 CD1 TYR A 261 222.424 169.975 191.237 1.00 65.61 C
ATOM 1446 CD2 TYR A 261 221.584 172.090 190.540 1.00 65.61 C

ATOM 1447 CE1 TYR A 261 223.597 170.208 190.547 1.00 65.61 C
ATOM 1448 CE2 TYR A 261 222.752 172.331 189.848 1.00 65.61 C
ATOM 1449 CZ TYR A 261 223.755 171.387 189.855 1.00 65.61 C
ATOM 1450 OH TYR A 261 224.923 171.623 189.167 1.00 65.61 O
ATOM 1451 N PRO A 262 221.830 172.501 194.191 1.00 60.32 N
ATOM 1452 CA PRO A 262 222.988 171.603 194.094 1.00 60.32 C
ATOM 1453 C PRO A 262 223.252 170.718 195.316 1.00 60.32 C
ATOM 1454 O PRO A 262 224.411 170.401 195.577 1.00 60.32 O
ATOM 1455 CB PRO A 262 224.151 172.575 193.905 1.00 60.32 C
ATOM 1456 CG PRO A 262 223.727 173.784 194.636 1.00 60.32 C
ATOM 1457 CD PRO A 262 222.241 173.890 194.448 1.00 60.32 C
ATOM 1458 N TYR A 263 222.206 170.331 196.045 1.00 63.47 N
ATOM 1459 CA TYR A 263 222.283 169.242 197.019 1.00 63.47 C
ATOM 1460 C TYR A 263 223.253 169.543 198.165 1.00 63.47 C
ATOM 1461 O TYR A 263 224.246 168.840 198.359 1.00 63.47 O
ATOM 1462 CB TYR A 263 222.698 167.937 196.327 1.00 63.47 C
ATOM 1463 CG TYR A 263 221.731 167.393 195.305 1.00 63.47 C
ATOM 1464 CD1 TYR A 263 220.424 167.832 195.249 1.00 63.47 C
ATOM 1465 CD2 TYR A 263 222.136 166.436 194.389 1.00 63.47 C
ATOM 1466 CE1 TYR A 263 219.543 167.338 194.311 1.00 63.47 C
ATOM 1467 CE2 TYR A 263 221.265 165.933 193.449 1.00 63.47 C
ATOM 1468 CZ TYR A 263 219.969 166.388 193.414 1.00 63.47 C
ATOM 1469 OH TYR A 263 219.095 165.888 192.477 1.00 63.47 O
ATOM 1470 N HIS A 264 222.975 170.600 198.929 1.00 54.98 N
ATOM 1471 CA HIS A 264 223.765 170.791 200.145 1.00 54.98 C
ATOM 1472 C HIS A 264 222.921 171.301 201.312 1.00 54.98 C
ATOM 1473 O HIS A 264 223.369 172.151 202.088 1.00 54.98 O
ATOM 1474 CB HIS A 264 224.967 171.705 199.894 1.00 54.98 C
ATOM 1475 CG HIS A 264 224.609 173.100 199.493 1.00 54.98 C
ATOM 1476 ND1 HIS A 264 224.286 173.443 198.198 1.00 54.98 N
ATOM 1477 CD2 HIS A 264 224.547 174.245 200.212 1.00 54.98 C
ATOM 1478 CE1 HIS A 264 224.029 174.737 198.139 1.00 54.98 C
ATOM 1479 NE2 HIS A 264 224.179 175.247 199.348 1.00 54.98 N
ATOM 1480 N PHE A 265 221.698 170.777 201.468 1.00 45.34 N

ATOM 1481 CA PHE A 265 220.974 170.848 202.739 1.00 45.34 C
ATOM 1482 C PHE A 265 219.650 170.093 202.681 1.00 45.34 C
ATOM 1483 O PHE A 265 219.030 169.997 201.618 1.00 45.34 O
ATOM 1484 CB PHE A 265 220.729 172.298 203.180 1.00 45.34 C
ATOM 1485 CG PHE A 265 219.813 173.078 202.284 1.00 45.34 C
ATOM 1486 CD1 PHE A 265 220.309 173.761 201.191 1.00 45.34 C
ATOM 1487 CD2 PHE A 265 218.462 173.173 202.568 1.00 45.34 C
ATOM 1488 CE1 PHE A 265 219.469 174.496 200.377 1.00 45.34 C
ATOM 1489 CE2 PHE A 265 217.618 173.904 201.759 1.00 45.34 C
ATOM 1490 CZ PHE A 265 218.122 174.567 200.663 1.00 45.34 C
ATOM 1491 N PHE A 266 219.211 169.554 203.817 1.00 40.16 N
ATOM 1492 CA PHE A 266 217.934 168.861 203.884 1.00 40.16 C
ATOM 1493 C PHE A 266 216.809 169.848 204.185 1.00 40.16 C
ATOM 1494 O PHE A 266 217.035 170.999 204.563 1.00 40.16 O
ATOM 1495 CB PHE A 266 217.936 167.780 204.965 1.00 40.16 C
ATOM 1496 CG PHE A 266 218.893 166.653 204.718 1.00 40.16 C
ATOM 1497 CD1 PHE A 266 219.530 166.505 203.503 1.00 40.16 C
ATOM 1498 CD2 PHE A 266 219.135 165.724 205.711 1.00 40.16 C
ATOM 1499 CE1 PHE A 266 220.410 165.469 203.295 1.00 40.16 C
ATOM 1500 CE2 PHE A 266 220.009 164.686 205.510 1.00 40.16 C
ATOM 1501 CZ PHE A 266 220.647 164.554 204.301 1.00 40.16 C
ATOM 1502 N ALA A 267 215.578 169.380 204.010 1.00 40.11 N
ATOM 1503 CA ALA A 267 214.388 170.130 204.397 1.00 40.11 C
ATOM 1504 C ALA A 267 213.357 169.187 205.008 1.00 40.11 C
ATOM 1505 O ALA A 267 212.184 169.205 204.639 1.00 40.11 O
ATOM 1506 CB ALA A 267 213.807 170.889 203.208 1.00 40.11 C
ATOM 1507 N THR A 268 213.811 168.330 205.931 1.00 37.31 N
ATOM 1508 CA THR A 268 213.011 167.228 206.465 1.00 37.31 C
ATOM 1509 C THR A 268 211.636 167.692 206.932 1.00 37.31 C
ATOM 1510 O THR A 268 211.466 168.813 207.417 1.00 37.31 O
ATOM 1511 CB THR A 268 213.745 166.563 207.627 1.00 37.31 C
ATOM 1512 OG1 THR A 268 213.931 167.517 208.678 1.00 37.31 O
ATOM 1513 CG2 THR A 268 215.100 166.056 207.172 1.00 37.31 C
ATOM 1514 N SER A 269 210.648 166.809 206.786 1.00 40.17 N

ATOM 1515 CA SER A 269 209.249 167.201 206.904 1.00 40.17 C
ATOM 1516 C SER A 269 208.768 167.279 208.347 1.00 40.17 C
ATOM 1517 O SER A 269 207.698 166.760 208.678 1.00 40.17 O
ATOM 1518 CB SER A 269 208.376 166.215 206.127 1.00 40.17 C
ATOM 1519 OG SER A 269 207.001 166.489 206.309 1.00 40.17 O
ATOM 1520 N THR A 270 209.548 167.937 209.205 1.00 39.52 N
ATOM 1521 CA THR A 270 209.078 168.383 210.510 1.00 39.52 C
ATOM 1522 C THR A 270 209.682 169.728 210.889 1.00 39.52 C
ATOM 1523 O THR A 270 209.466 170.189 212.016 1.00 39.52 O
ATOM 1524 CB THR A 270 209.383 167.358 211.610 1.00 39.52 C
ATOM 1525 OG1 THR A 270 210.781 167.047 211.609 1.00 39.52 O
ATOM 1526 CG2 THR A 270 208.566 166.096 211.423 1.00 39.52 C
ATOM 1527 N GLY A 271 210.426 170.367 209.991 1.00 40.09 N
ATOM 1528 CA GLY A 271 211.088 171.625 210.265 1.00 40.09 C
ATOM 1529 C GLY A 271 212.590 171.524 210.402 1.00 40.09 C
ATOM 1530 O GLY A 271 213.277 172.540 210.240 1.00 40.09 O
ATOM 1531 N ASP A 272 213.122 170.341 210.693 1.00 39.03 N
ATOM 1532 CA ASP A 272 214.557 170.182 210.868 1.00 39.03 C
ATOM 1533 C ASP A 272 215.300 170.473 209.570 1.00 39.03 C
ATOM 1534 O ASP A 272 214.794 170.237 208.470 1.00 39.03 O
ATOM 1535 CB ASP A 272 214.876 168.769 211.346 1.00 39.03 C
ATOM 1536 CG ASP A 272 214.385 168.510 212.753 1.00 39.03 C
ATOM 1537 OD1 ASP A 272 214.328 169.471 213.546 1.00 39.03 O
ATOM 1538 OD2 ASP A 272 214.048 167.349 213.065 1.00 39.03 O
ATOM 1539 N VAL A 273 216.516 170.991 209.707 1.00 39.64 N
ATOM 1540 CA VAL A 273 217.357 171.336 208.564 1.00 39.64 C
ATOM 1541 C VAL A 273 218.808 171.097 208.947 1.00 39.64 C
ATOM 1542 O VAL A 273 219.236 171.462 210.045 1.00 39.64 O
ATOM 1543 CB VAL A 273 217.153 172.795 208.113 1.00 39.64 C
ATOM 1544 CG1 VAL A 273 218.166 173.160 207.048 1.00 39.64 C
ATOM 1545 CG2 VAL A 273 215.751 172.992 207.585 1.00 39.64 C
ATOM 1546 N VAL A 274 219.565 170.487 208.042 1.00 43.99 N
ATOM 1547 CA VAL A 274 220.979 170.226 208.265 1.00 43.99 C
ATOM 1548 C VAL A 274 221.745 170.604 207.008 1.00 43.99 C

ATOM 1549 O VAL A 274 221.244 170.465 205.888 1.00 43.99 O
ATOM 1550 CB VAL A 274 221.240 168.755 208.638 1.00 43.99 C
ATOM 1551 CG1 VAL A 274 220.474 168.389 209.891 1.00 43.99 C
ATOM 1552 CG2 VAL A 274 220.855 167.854 207.496 1.00 43.99 C
ATOM 1553 N ASP A 275 222.971 171.089 207.199 1.00 49.48 N
ATOM 1554 CA ASP A 275 223.808 171.543 206.091 1.00 49.48 C
ATOM 1555 C ASP A 275 224.795 170.438 205.729 1.00 49.48 C
ATOM 1556 O ASP A 275 225.987 170.503 206.025 1.00 49.48 O
ATOM 1557 CB ASP A 275 224.517 172.841 206.456 1.00 49.48 C
ATOM 1558 CG ASP A 275 223.565 174.011 206.560 1.00 49.48 C
ATOM 1559 OD1 ASP A 275 222.524 173.988 205.872 1.00 49.48 O
ATOM 1560 OD2 ASP A 275 223.857 174.954 207.324 1.00 49.48 O
ATOM 1561 N ILE A 276 224.276 169.407 205.068 1.00 48.45 N
ATOM 1562 CA ILE A 276 225.091 168.322 204.536 1.00 48.45 C
ATOM 1563 C ILE A 276 224.425 167.806 203.274 1.00 48.45 C
ATOM 1564 O ILE A 276 223.202 167.656 203.222 1.00 48.45 O
ATOM 1565 CB ILE A 276 225.273 167.173 205.550 1.00 48.45 C
ATOM 1566 CG1 ILE A 276 226.070 167.633 206.767 1.00 48.45 C
ATOM 1567 CG2 ILE A 276 225.961 165.998 204.890 1.00 48.45 C
ATOM 1568 CD1 ILE A 276 226.084 166.629 207.890 1.00 48.45 C
ATOM 1569 N SER A 277 225.228 167.536 202.255 1.00 53.03 N
ATOM 1570 CA SER A 277 224.696 166.880 201.075 1.00 53.03 C
ATOM 1571 C SER A 277 224.232 165.475 201.448 1.00 53.03 C
ATOM 1572 O SER A 277 224.853 164.823 202.291 1.00 53.03 O
ATOM 1573 CB SER A 277 225.750 166.809 199.975 1.00 53.03 C
ATOM 1574 OG SER A 277 226.816 165.959 200.354 1.00 53.03 O
ATOM 1575 N PRO A 278 223.136 164.992 200.855 1.00 47.21 N
ATOM 1576 CA PRO A 278 222.624 163.666 201.238 1.00 47.21 C
ATOM 1577 C PRO A 278 223.624 162.544 201.035 1.00 47.21 C
ATOM 1578 O PRO A 278 223.789 161.700 201.924 1.00 47.21 O
ATOM 1579 CB PRO A 278 221.396 163.498 200.335 1.00 47.21 C
ATOM 1580 CG PRO A 278 220.982 164.886 200.005 1.00 47.21 C
ATOM 1581 CD PRO A 278 222.250 165.671 199.898 1.00 47.21 C
ATOM 1582 N PHE A 279 224.295 162.505 199.888 1.00 58.58 N

ATOM 1583 CA PHE A 279 225.250 161.442 199.587 1.00 58.58 C
ATOM 1584 C PHE A 279 226.680 161.922 199.842 1.00 58.58 C
ATOM 1585 O PHE A 279 227.540 161.953 198.967 1.00 58.58 O
ATOM 1586 CB PHE A 279 225.041 160.934 198.159 1.00 58.58 C
ATOM 1587 CG PHE A 279 225.110 162.005 197.097 1.00 58.58 C
ATOM 1588 CD1 PHE A 279 223.997 162.773 196.799 1.00 58.58 C
ATOM 1589 CD2 PHE A 279 226.260 162.193 196.349 1.00 58.58 C
ATOM 1590 CE1 PHE A 279 224.049 163.741 195.822 1.00 58.58 C
ATOM 1591 CE2 PHE A 279 226.317 163.160 195.368 1.00 58.58 C
ATOM 1592 CZ PHE A 279 225.210 163.933 195.103 1.00 58.58 C
ATOM 1593 N TYR A 280 226.932 162.272 201.095 1.00 59.66 N
ATOM 1594 CA TYR A 280 228.278 162.582 201.565 1.00 59.66 C
ATOM 1595 C TYR A 280 228.804 161.366 202.313 1.00 59.66 C
ATOM 1596 O TYR A 280 228.589 161.232 203.519 1.00 59.66 O
ATOM 1597 CB TYR A 280 228.292 163.810 202.466 1.00 59.66 C
ATOM 1598 CG TYR A 280 229.670 164.119 203.003 1.00 59.66 C
ATOM 1599 CD1 TYR A 280 230.617 164.749 202.214 1.00 59.66 C
ATOM 1600 CD2 TYR A 280 230.031 163.756 204.291 1.00 59.66 C
ATOM 1601 CE1 TYR A 280 231.882 165.026 202.700 1.00 59.66 C
ATOM 1602 CE2 TYR A 280 231.291 164.024 204.784 1.00 59.66 C
ATOM 1603 CZ TYR A 280 232.212 164.659 203.987 1.00 59.66 C
ATOM 1604 OH TYR A 280 233.466 164.927 204.481 1.00 59.66 O
ATOM 1605 N ASN A 281 229.502 160.485 201.611 1.00 66.12 N
ATOM 1606 CA ASN A 281 230.167 159.388 202.296 1.00 66.12 C
ATOM 1607 C ASN A 281 231.465 159.923 202.902 1.00 66.12 C
ATOM 1608 O ASN A 281 231.686 161.134 202.982 1.00 66.12 O
ATOM 1609 CB ASN A 281 230.355 158.197 201.357 1.00 66.12 C
ATOM 1610 CG ASN A 281 231.170 158.529 200.127 1.00 66.12 C
ATOM 1611 OD1 ASN A 281 231.664 159.643 199.970 1.00 66.12 O
ATOM 1612 ND2 ASN A 281 231.314 157.547 199.240 1.00 66.12 N
ATOM 1613 N GLY A 282 232.335 159.027 203.363 1.00 66.56 N
ATOM 1614 CA GLY A 282 233.504 159.462 204.104 1.00 66.56 C
ATOM 1615 C GLY A 282 234.529 160.225 203.289 1.00 66.56 C
ATOM 1616 O GLY A 282 235.373 160.913 203.873 1.00 66.56 O

ATOM 1617 N THR A 283 234.479 160.128 201.962 1.00 71.11 N
ATOM 1618 CA THR A 283 235.559 160.618 201.105 1.00 71.11 C
ATOM 1619 C THR A 283 235.021 161.423 199.926 1.00 71.11 C
ATOM 1620 O THR A 283 235.397 161.202 198.774 1.00 71.11 O
ATOM 1621 CB THR A 283 236.417 159.461 200.598 1.00 71.11 C
ATOM 1622 OG1 THR A 283 235.615 158.582 199.800 1.00 71.11 O
ATOM 1623 CG2 THR A 283 237.006 158.682 201.764 1.00 71.11 C
ATOM 1624 N ASN A 284 234.127 162.379 200.190 1.00 70.78 N
ATOM 1625 CA ASN A 284 233.644 163.246 199.120 1.00 70.78 C
ATOM 1626 C ASN A 284 233.558 164.703 199.552 1.00 70.78 C
ATOM 1627 O ASN A 284 232.662 165.427 199.107 1.00 70.78 O
ATOM 1628 CB ASN A 284 232.274 162.807 198.610 1.00 70.78 C
ATOM 1629 CG ASN A 284 232.334 161.540 197.803 1.00 70.78 C
ATOM 1630 OD1 ASN A 284 233.271 161.322 197.038 1.00 70.78 O
ATOM 1631 ND2 ASN A 284 231.317 160.704 197.948 1.00 70.78 N
ATOM 1632 N ARG A 285 234.468 165.155 200.415 1.00 75.35 N
ATOM 1633 CA ARG A 285 234.394 166.540 200.867 1.00 75.35 C
ATOM 1634 C ARG A 285 234.735 167.510 199.742 1.00 75.35 C
ATOM 1635 O ARG A 285 234.156 168.600 199.661 1.00 75.35 O
ATOM 1636 CB ARG A 285 235.314 166.765 202.064 1.00 75.35 C
ATOM 1637 CG ARG A 285 235.204 168.164 202.648 1.00 75.35 C
ATOM 1638 CD ARG A 285 236.027 168.310 203.914 1.00 75.35 C
ATOM 1639 NE ARG A 285 236.020 169.687 204.394 1.00 75.35 N
ATOM 1640 CZ ARG A 285 235.083 170.200 205.183 1.00 75.35 C
ATOM 1641 NH1 ARG A 285 234.070 169.448 205.586 1.00 75.35 N
ATOM 1642 NH2 ARG A 285 235.158 171.467 205.566 1.00 75.35 N
ATOM 1643 N ASN A 286 235.669 167.138 198.863 1.00 83.41 N
ATOM 1644 CA ASN A 286 235.988 168.002 197.731 1.00 83.41 C
ATOM 1645 C ASN A 286 234.890 167.978 196.675 1.00 83.41 C
ATOM 1646 O ASN A 286 234.611 169.006 196.049 1.00 83.41 O
ATOM 1647 CB ASN A 286 237.321 167.596 197.104 1.00 83.41 C
ATOM 1648 CG ASN A 286 238.529 168.048 197.916 1.00 83.41 C
ATOM 1649 OD1 ASN A 286 238.543 169.141 198.480 1.00 83.41 O
ATOM 1650 ND2 ASN A 286 239.559 167.205 197.954 1.00 83.41 N

ATOM 1651 N ALA A 287 234.262 166.823 196.463 1.00 75.35 N
ATOM 1652 CA ALA A 287 233.238 166.690 195.435 1.00 75.35 C
ATOM 1653 C ALA A 287 231.840 167.010 195.943 1.00 75.35 C
ATOM 1654 O ALA A 287 231.000 167.475 195.165 1.00 75.35 O
ATOM 1655 CB ALA A 287 233.257 165.275 194.853 1.00 75.35 C
ATOM 1656 N SER A 288 231.572 166.773 197.225 1.00 67.21 N
ATOM 1657 CA SER A 288 230.262 167.005 197.811 1.00 67.21 C
ATOM 1658 C SER A 288 230.398 167.842 199.076 1.00 67.21 C
ATOM 1659 O SER A 288 231.375 167.722 199.821 1.00 67.21 O
ATOM 1660 CB SER A 288 229.558 165.687 198.131 1.00 67.21 C
ATOM 1661 OG SER A 288 230.257 164.980 199.136 1.00 67.21 O
ATOM 1662 N TYR A 289 229.402 168.689 199.307 1.00 56.70 N
ATOM 1663 CA TYR A 289 229.441 169.679 200.370 1.00 56.70 C
ATOM 1664 C TYR A 289 229.329 169.015 201.741 1.00 56.70 C
ATOM 1665 O TYR A 289 228.738 167.944 201.897 1.00 56.70 O
ATOM 1666 CB TYR A 289 228.313 170.690 200.171 1.00 56.70 C
ATOM 1667 CG TYR A 289 228.297 171.831 201.156 1.00 56.70 C
ATOM 1668 CD1 TYR A 289 229.169 172.898 201.025 1.00 56.70 C
ATOM 1669 CD2 TYR A 289 227.407 171.839 202.216 1.00 56.70 C
ATOM 1670 CE1 TYR A 289 229.153 173.943 201.923 1.00 56.70 C
ATOM 1671 CE2 TYR A 289 227.384 172.877 203.118 1.00 56.70 C
ATOM 1672 CZ TYR A 289 228.258 173.927 202.969 1.00 56.70 C
ATOM 1673 OH TYR A 289 228.235 174.965 203.871 1.00 56.70 O
ATOM 1674 N PHE A 290 229.921 169.666 202.740 1.00 58.21 N
ATOM 1675 CA PHE A 290 229.805 169.229 204.130 1.00 58.21 C
ATOM 1676 C PHE A 290 230.233 170.377 205.028 1.00 58.21 C
ATOM 1677 O PHE A 290 231.361 170.862 204.906 1.00 58.21 O
ATOM 1678 CB PHE A 290 230.664 168.000 204.396 1.00 58.21 C
ATOM 1679 CG PHE A 290 230.569 167.499 205.803 1.00 58.21 C
ATOM 1680 CD1 PHE A 290 229.493 166.733 206.207 1.00 58.21 C
ATOM 1681 CD2 PHE A 290 231.540 167.822 206.731 1.00 58.21 C
ATOM 1682 CE1 PHE A 290 229.401 166.279 207.504 1.00 58.21 C
ATOM 1683 CE2 PHE A 290 231.452 167.374 208.026 1.00 58.21 C
ATOM 1684 CZ PHE A 290 230.381 166.602 208.414 1.00 58.21 C

ATOM 1685 N GLY A 291 229.347 170.815 205.920 1.00 56.59 N
ATOM 1686 CA GLY A 291 229.675 171.942 206.772 1.00 56.59 C
ATOM 1687 C GLY A 291 229.173 171.909 208.202 1.00 56.59 C
ATOM 1688 O GLY A 291 228.921 172.972 208.777 1.00 56.59 O
ATOM 1689 N GLU A 292 229.017 170.728 208.804 1.00 55.26 N
ATOM 1690 CA GLU A 292 228.456 170.646 210.148 1.00 55.26 C
ATOM 1691 C GLU A 292 229.517 170.495 211.230 1.00 55.26 C
ATOM 1692 O GLU A 292 229.662 171.386 212.071 1.00 55.26 O
ATOM 1693 CB GLU A 292 227.459 169.486 210.231 1.00 55.26 C
ATOM 1694 CG GLU A 292 226.195 169.716 209.439 1.00 55.26 C
ATOM 1695 CD GLU A 292 225.364 170.849 210.000 1.00 55.26 C
ATOM 1696 OE1 GLU A 292 225.376 171.048 211.234 1.00 55.26 O
ATOM 1697 OE2 GLU A 292 224.702 171.545 209.204 1.00 55.26 O
ATOM 1698 N ASN A 293 230.283 169.404 211.222 1.00 60.72 N
ATOM 1699 CA ASN A 293 231.247 169.169 212.290 1.00 60.72 C
ATOM 1700 C ASN A 293 232.025 167.887 212.028 1.00 60.72 C
ATOM 1701 O ASN A 293 231.794 167.210 211.023 1.00 60.72 O
ATOM 1702 CB ASN A 293 230.532 169.091 213.641 1.00 60.72 C
ATOM 1703 CG ASN A 293 231.377 169.631 214.778 1.00 60.72 C
ATOM 1704 OD1 ASN A 293 230.888 169.822 215.892 1.00 60.72 O
ATOM 1705 ND2 ASN A 293 232.637 169.932 214.492 1.00 60.72 N
ATOM 1706 N ALA A 294 232.950 167.537 212.914 1.00 61.84 N
ATOM 1707 CA ALA A 294 233.633 166.255 212.865 1.00 61.84 C
ATOM 1708 C ALA A 294 233.425 165.409 214.110 1.00 61.84 C
ATOM 1709 O ALA A 294 233.459 164.183 214.015 1.00 61.84 O
ATOM 1710 CB ALA A 294 235.139 166.450 212.645 1.00 61.84 C
ATOM 1711 N ASP A 295 233.209 166.030 215.269 1.00 61.29 N
ATOM 1712 CA ASP A 295 232.906 165.314 216.499 1.00 61.29 C
ATOM 1713 C ASP A 295 231.407 165.085 216.670 1.00 61.29 C
ATOM 1714 O ASP A 295 230.973 164.643 217.736 1.00 61.29 O
ATOM 1715 CB ASP A 295 233.468 166.084 217.697 1.00 61.29 C
ATOM 1716 CG ASP A 295 233.609 165.223 218.938 1.00 61.29 C
ATOM 1717 OD1 ASP A 295 233.293 164.015 218.869 1.00 61.29 O
ATOM 1718 OD2 ASP A 295 234.041 165.754 219.982 1.00 61.29 O

ATOM 1719 N LYS A 296 230.613 165.378 215.644 1.00 52.49 N
ATOM 1720 CA LYS A 296 229.161 165.237 215.661 1.00 52.49 C
ATOM 1721 C LYS A 296 228.690 164.540 214.394 1.00 52.49 C
ATOM 1722 O LYS A 296 227.761 164.980 213.714 1.00 52.49 O
ATOM 1723 CB LYS A 296 228.483 166.594 215.813 1.00 52.49 C
ATOM 1724 CG LYS A 296 228.844 167.322 217.093 1.00 52.49 C
ATOM 1725 CD LYS A 296 228.285 166.609 218.309 1.00 52.49 C
ATOM 1726 CE LYS A 296 228.663 167.330 219.590 1.00 52.49 C
ATOM 1727 NZ LYS A 296 227.983 168.649 219.706 1.00 52.49 N
ATOM 1728 N PHE A 297 229.341 163.431 214.056 1.00 45.87 N
ATOM 1729 CA PHE A 297 229.058 162.742 212.805 1.00 45.87 C
ATOM 1730 C PHE A 297 229.658 161.348 212.879 1.00 45.87 C
ATOM 1731 O PHE A 297 230.789 161.185 213.344 1.00 45.87 O
ATOM 1732 CB PHE A 297 229.636 163.526 211.625 1.00 45.87 C
ATOM 1733 CG PHE A 297 229.316 162.940 210.288 1.00 45.87 C
ATOM 1734 CD1 PHE A 297 228.072 163.125 209.716 1.00 45.87 C
ATOM 1735 CD2 PHE A 297 230.262 162.210 209.599 1.00 45.87 C
ATOM 1736 CE1 PHE A 297 227.780 162.589 208.481 1.00 45.87 C
ATOM 1737 CE2 PHE A 297 229.976 161.673 208.368 1.00 45.87 C
ATOM 1738 CZ PHE A 297 228.733 161.861 207.807 1.00 45.87 C
ATOM 1739 N PHE A 298 228.902 160.351 212.432 1.00 42.19 N
ATOM 1740 CA PHE A 298 229.336 158.963 212.484 1.00 42.19 C
ATOM 1741 C PHE A 298 228.789 158.218 211.278 1.00 42.19 C
ATOM 1742 O PHE A 298 227.626 158.394 210.909 1.00 42.19 O
ATOM 1743 CB PHE A 298 228.860 158.275 213.768 1.00 42.19 C
ATOM 1744 CG PHE A 298 229.493 158.806 215.018 1.00 42.19 C
ATOM 1745 CD1 PHE A 298 230.749 158.381 215.409 1.00 42.19 C
ATOM 1746 CD2 PHE A 298 228.826 159.722 215.810 1.00 42.19 C
ATOM 1747 CE1 PHE A 298 231.329 158.864 216.563 1.00 42.19 C
ATOM 1748 CE2 PHE A 298 229.401 160.208 216.964 1.00 42.19 C
ATOM 1749 CZ PHE A 298 230.653 159.779 217.341 1.00 42.19 C
ATOM 1750 N ILE A 299 229.628 157.385 210.669 1.00 39.81 N
ATOM 1751 CA ILE A 299 229.226 156.540 209.550 1.00 39.81 C
ATOM 1752 C ILE A 299 229.526 155.096 209.921 1.00 39.81 C

ATOM 1753 O ILE A 299 230.654 154.772 210.313 1.00 39.81 O
ATOM 1754 CB ILE A 299 229.937 156.928 208.247 1.00 39.81 C
ATOM 1755 CG1 ILE A 299 229.543 158.341 207.822 1.00 39.81 C
ATOM 1756 CG2 ILE A 299 229.603 155.937 207.151 1.00 39.81 C
ATOM 1757 CD1 ILE A 299 230.364 158.869 206.676 1.00 39.81 C
ATOM 1758 N PHE A 300 228.519 154.235 209.800 1.00 38.82 N
ATOM 1759 CA PHE A 300 228.631 152.830 210.151 1.00 38.82 C
ATOM 1760 C PHE A 300 228.396 151.957 208.932 1.00 38.82 C
ATOM 1761 O PHE A 300 227.403 152.157 208.220 1.00 38.82 O
ATOM 1762 CB PHE A 300 227.617 152.470 211.242 1.00 38.82 C
ATOM 1763 CG PHE A 300 227.934 153.049 212.590 1.00 38.82 C
ATOM 1764 CD1 PHE A 300 228.824 152.415 213.435 1.00 38.82 C
ATOM 1765 CD2 PHE A 300 227.337 154.221 213.017 1.00 38.82 C
ATOM 1766 CE1 PHE A 300 229.113 152.938 214.677 1.00 38.82 C
ATOM 1767 CE2 PHE A 300 227.626 154.748 214.259 1.00 38.82 C
ATOM 1768 CZ PHE A 300 228.514 154.105 215.089 1.00 38.82 C
ATOM 1769 N PRO A 301 229.269 150.989 208.655 1.00 41.73 N
ATOM 1770 CA PRO A 301 228.976 150.002 207.609 1.00 41.73 C
ATOM 1771 C PRO A 301 228.226 148.805 208.172 1.00 41.73 C
ATOM 1772 O PRO A 301 228.585 148.245 209.210 1.00 41.73 O
ATOM 1773 CB PRO A 301 230.374 149.589 207.134 1.00 41.73 C
ATOM 1774 CG PRO A 301 231.211 149.725 208.355 1.00 41.73 C
ATOM 1775 CD PRO A 301 230.666 150.907 209.113 1.00 41.73 C
ATOM 1776 N ASN A 302 227.175 148.399 207.460 1.00 43.93 N
ATOM 1777 CA ASN A 302 226.336 147.270 207.864 1.00 43.93 C
ATOM 1778 C ASN A 302 225.737 147.496 209.253 1.00 43.93 C
ATOM 1779 O ASN A 302 226.028 146.779 210.211 1.00 43.93 O
ATOM 1780 CB ASN A 302 227.122 145.958 207.828 1.00 43.93 C
ATOM 1781 CG ASN A 302 227.442 145.512 206.426 1.00 43.93 C
ATOM 1782 OD1 ASN A 302 226.621 145.634 205.519 1.00 43.93 O
ATOM 1783 ND2 ASN A 302 228.638 144.977 206.240 1.00 43.93 N
ATOM 1784 N TYR A 303 224.893 148.517 209.349 1.00 41.28 N
ATOM 1785 CA TYR A 303 224.218 148.844 210.602 1.00 41.28 C
ATOM 1786 C TYR A 303 222.824 148.228 210.549 1.00 41.28 C

ATOM 1787 O TYR A 303 221.903 148.783 209.951 1.00 41.28 O
ATOM 1788 CB TYR A 303 224.171 150.350 210.821 1.00 41.28 C
ATOM 1789 CG TYR A 303 223.579 150.750 212.149 1.00 41.28 C
ATOM 1790 CD1 TYR A 303 224.276 150.539 213.329 1.00 41.28 C
ATOM 1791 CD2 TYR A 303 222.335 151.355 212.224 1.00 41.28 C
ATOM 1792 CE1 TYR A 303 223.746 150.903 214.546 1.00 41.28 C
ATOM 1793 CE2 TYR A 303 221.799 151.728 213.438 1.00 41.28 C
ATOM 1794 CZ TYR A 303 222.508 151.499 214.595 1.00 41.28 C
ATOM 1795 OH TYR A 303 221.977 151.868 215.809 1.00 41.28 O
ATOM 1796 N THR A 304 222.683 147.056 211.168 1.00 41.05 N
ATOM 1797 CA THR A 304 221.404 146.362 211.192 1.00 41.05 C
ATOM 1798 C THR A 304 220.344 147.228 211.859 1.00 41.05 C
ATOM 1799 O THR A 304 220.626 147.982 212.794 1.00 41.05 O
ATOM 1800 CB THR A 304 221.535 145.029 211.930 1.00 41.05 C
ATOM 1801 OG1 THR A 304 221.868 145.270 213.302 1.00 41.05 O
ATOM 1802 CG2 THR A 304 222.629 144.188 211.304 1.00 41.05 C
ATOM 1803 N ILE A 305 219.113 147.122 211.367 1.00 41.87 N
ATOM 1804 CA ILE A 305 218.017 147.965 211.834 1.00 41.87 C
ATOM 1805 C ILE A 305 216.740 147.141 211.852 1.00 41.87 C
ATOM 1806 O ILE A 305 216.527 146.284 210.991 1.00 41.87 O
ATOM 1807 CB ILE A 305 217.852 149.219 210.947 1.00 41.87 C
ATOM 1808 CG1 ILE A 305 219.062 150.142 211.085 1.00 41.87 C
ATOM 1809 CG2 ILE A 305 216.571 149.959 211.282 1.00 41.87 C
ATOM 1810 CD1 ILE A 305 219.071 151.277 210.089 1.00 41.87 C
ATOM 1811 N VAL A 306 215.893 147.399 212.851 1.00 47.60 N
ATOM 1812 CA VAL A 306 214.563 146.811 212.859 1.00 47.60 C
ATOM 1813 C VAL A 306 213.792 147.304 211.644 1.00 47.60 C
ATOM 1814 O VAL A 306 213.898 148.471 211.247 1.00 47.60 O
ATOM 1815 CB VAL A 306 213.830 147.157 214.165 1.00 47.60 C
ATOM 1816 CG1 VAL A 306 212.398 146.662 214.116 1.00 47.60 C
ATOM 1817 CG2 VAL A 306 214.560 146.556 215.351 1.00 47.60 C
ATOM 1818 N SER A 307 213.014 146.406 211.039 1.00 53.75 N
ATOM 1819 CA SER A 307 212.266 146.750 209.837 1.00 53.75 C
ATOM 1820 C SER A 307 211.012 147.559 210.132 1.00 53.75 C

ATOM 1821 O SER A 307 210.509 148.243 209.234 1.00 53.75 O
ATOM 1822 CB SER A 307 211.884 145.482 209.073 1.00 53.75 C
ATOM 1823 OG SER A 307 210.980 144.693 209.826 1.00 53.75 O
ATOM 1824 N ASP A 308 210.497 147.498 211.358 1.00 52.86 N
ATOM 1825 CA ASP A 308 209.318 148.272 211.720 1.00 52.86 C
ATOM 1826 C ASP A 308 209.165 148.331 213.233 1.00 52.86 C
ATOM 1827 O ASP A 308 209.269 147.306 213.913 1.00 52.86 O
ATOM 1828 CB ASP A 308 208.067 147.675 211.077 1.00 52.86 C
ATOM 1829 CG ASP A 308 206.845 148.549 211.262 1.00 52.86 C
ATOM 1830 OD1 ASP A 308 206.762 149.600 210.592 1.00 52.86 O
ATOM 1831 OD2 ASP A 308 205.966 148.185 212.071 1.00 52.86 O
ATOM 1832 N PHE A 309 208.916 149.524 213.765 1.00 45.56 N
ATOM 1833 CA PHE A 309 208.835 149.712 215.205 1.00 45.56 C
ATOM 1834 C PHE A 309 207.415 149.485 215.703 1.00 45.56 C
ATOM 1835 O PHE A 309 206.440 149.713 214.982 1.00 45.56 O
ATOM 1836 CB PHE A 309 209.302 151.115 215.583 1.00 45.56 C
ATOM 1837 CG PHE A 309 210.749 151.364 215.297 1.00 45.56 C
ATOM 1838 CD1 PHE A 309 211.725 150.899 216.154 1.00 45.56 C
ATOM 1839 CD2 PHE A 309 211.133 152.063 214.168 1.00 45.56 C
ATOM 1840 CE1 PHE A 309 213.057 151.126 215.890 1.00 45.56 C
ATOM 1841 CE2 PHE A 309 212.463 152.294 213.900 1.00 45.56 C
ATOM 1842 CZ PHE A 309 213.426 151.825 214.761 1.00 45.56 C
ATOM 1843 N GLY A 310 207.306 149.037 216.948 1.00 50.34 N
ATOM 1844 CA GLY A 310 206.021 148.716 217.530 1.00 50.34 C
ATOM 1845 C GLY A 310 205.909 147.233 217.802 1.00 50.34 C
ATOM 1846 O GLY A 310 205.397 146.816 218.843 1.00 50.34 O
ATOM 1847 N ARG A 311 206.394 146.429 216.866 1.00 57.26 N
ATOM 1848 CA ARG A 311 206.416 144.992 217.068 1.00 57.26 C
ATOM 1849 C ARG A 311 207.413 144.637 218.168 1.00 57.26 C
ATOM 1850 O ARG A 311 208.497 145.223 218.236 1.00 57.26 O
ATOM 1851 CB ARG A 311 206.795 144.274 215.775 1.00 57.26 C
ATOM 1852 CG ARG A 311 205.834 144.512 214.624 1.00 57.26 C
ATOM 1853 CD ARG A 311 204.499 143.835 214.873 1.00 57.26 C
ATOM 1854 NE ARG A 311 203.565 144.059 213.775 1.00 57.26 N

ATOM 1855 CZ ARG A 311 203.469 143.275 212.707 1.00 57.26 C
ATOM 1856 NH1 ARG A 311 204.256 142.214 212.589 1.00 57.26 N
ATOM 1857 NH2 ARG A 311 202.589 143.554 211.755 1.00 57.26 N
ATOM 1858 N PRO A 312 207.070 143.699 219.053 1.00 60.90 N
ATOM 1859 CA PRO A 312 208.066 143.231 220.030 1.00 60.90 C
ATOM 1860 C PRO A 312 209.293 142.629 219.371 1.00 60.90 C
ATOM 1861 O PRO A 312 210.410 142.780 219.881 1.00 60.90 O
ATOM 1862 CB PRO A 312 207.287 142.195 220.851 1.00 60.90 C
ATOM 1863 CG PRO A 312 205.854 142.578 220.678 1.00 60.90 C
ATOM 1864 CD PRO A 312 205.747 143.096 219.278 1.00 60.90 C
ATOM 1865 N ASN A 313 209.110 141.947 218.243 1.00 60.23 N
ATOM 1866 CA ASN A 313 210.213 141.430 217.450 1.00 60.23 C
ATOM 1867 C ASN A 313 209.809 141.456 215.985 1.00 60.23 C
ATOM 1868 O ASN A 313 208.628 141.328 215.650 1.00 60.23 O
ATOM 1869 CB ASN A 313 210.604 140.009 217.870 1.00 60.23 C
ATOM 1870 CG ASN A 313 211.325 139.974 219.200 1.00 60.23 C
ATOM 1871 OD1 ASN A 313 212.187 140.808 219.472 1.00 60.23 O
ATOM 1872 ND2 ASN A 313 210.977 139.006 220.037 1.00 60.23 N
ATOM 1873 N SER A 314 210.797 141.625 215.117 1.00 62.90 N
ATOM 1874 CA SER A 314 210.550 141.680 213.683 1.00 62.90 C
ATOM 1875 C SER A 314 211.777 141.123 212.972 1.00 62.90 C
ATOM 1876 O SER A 314 212.631 140.480 213.592 1.00 62.90 O
ATOM 1877 CB SER A 314 210.207 143.115 213.252 1.00 62.90 C
ATOM 1878 OG SER A 314 211.322 143.970 213.418 1.00 62.90 O
ATOM 1879 N ALA A 315 211.867 141.366 211.669 1.00 62.16 N
ATOM 1880 CA ALA A 315 212.979 140.906 210.851 1.00 62.16 C
ATOM 1881 C ALA A 315 213.872 142.094 210.519 1.00 62.16 C
ATOM 1882 O ALA A 315 213.417 143.062 209.901 1.00 62.16 O
ATOM 1883 CB ALA A 315 212.476 140.234 209.574 1.00 62.16 C
ATOM 1884 N LEU A 316 215.134 142.019 210.932 1.00 52.18 N
ATOM 1885 CA LEU A 316 216.065 143.104 210.671 1.00 52.18 C
ATOM 1886 C LEU A 316 216.309 143.249 209.172 1.00 52.18 C
ATOM 1887 O LEU A 316 215.950 142.386 208.367 1.00 52.18 O
ATOM 1888 CB LEU A 316 217.385 142.863 211.400 1.00 52.18 C

ATOM 1889 CG LEU A 316 217.415 143.159 212.901 1.00 52.18 C
ATOM 1890 CD1 LEU A 316 216.634 142.115 213.675 1.00 52.18 C
ATOM 1891 CD2 LEU A 316 218.846 143.228 213.403 1.00 52.18 C
ATOM 1892 N GLU A 317 216.936 144.366 208.803 1.00 49.07 N
ATOM 1893 CA GLU A 317 217.241 144.659 207.403 1.00 49.07 C
ATOM 1894 C GLU A 317 218.543 145.455 207.384 1.00 49.07 C
ATOM 1895 O GLU A 317 218.532 146.670 207.600 1.00 49.07 O
ATOM 1896 CB GLU A 317 216.105 145.423 206.738 1.00 49.07 C
ATOM 1897 CG GLU A 317 216.336 145.717 205.269 1.00 49.07 C
ATOM 1898 CD GLU A 317 216.402 144.456 204.435 1.00 49.07 C
ATOM 1899 OE1 GLU A 317 215.819 143.437 204.859 1.00 49.07 O
ATOM 1900 OE2 GLU A 317 217.033 144.481 203.357 1.00 49.07 O
ATOM 1901 N THR A 318 219.649 144.769 207.116 1.00 47.02 N
ATOM 1902 CA THR A 318 220.974 145.369 207.227 1.00 47.02 C
ATOM 1903 C THR A 318 221.202 146.315 206.055 1.00 47.02 C
ATOM 1904 O THR A 318 221.366 145.873 204.914 1.00 47.02 O
ATOM 1905 CB THR A 318 222.044 144.284 207.255 1.00 47.02 C
ATOM 1906 OG1 THR A 318 222.091 143.630 205.982 1.00 47.02 O
ATOM 1907 CG2 THR A 318 221.710 143.255 208.318 1.00 47.02 C
ATOM 1908 N HIS A 319 221.227 147.613 206.334 1.00 43.96 N
ATOM 1909 CA HIS A 319 221.510 148.603 205.305 1.00 43.96 C
ATOM 1910 C HIS A 319 223.013 148.634 205.040 1.00 43.96 C
ATOM 1911 O HIS A 319 223.776 147.805 205.543 1.00 43.96 O
ATOM 1912 CB HIS A 319 220.971 149.968 205.716 1.00 43.96 C
ATOM 1913 CG HIS A 319 219.480 150.025 205.803 1.00 43.96 C
ATOM 1914 ND1 HIS A 319 218.804 151.122 206.289 1.00 43.96 N
ATOM 1915 CD2 HIS A 319 218.533 149.113 205.478 1.00 43.96 C
ATOM 1916 CE1 HIS A 319 217.505 150.888 206.252 1.00 43.96 C
ATOM 1917 NE2 HIS A 319 217.314 149.676 205.765 1.00 43.96 N
ATOM 1918 N ARG A 320 223.459 149.605 204.246 1.00 49.32 N
ATOM 1919 CA ARG A 320 224.854 149.693 203.831 1.00 49.32 C
ATOM 1920 C ARG A 320 225.623 150.775 204.576 1.00 49.32 C
ATOM 1921 O ARG A 320 226.689 150.504 205.136 1.00 49.32 O
ATOM 1922 CB ARG A 320 224.929 149.939 202.322 1.00 49.32 C

ATOM 1923 CG ARG A 320 226.335 149.963 201.765 1.00 49.32 C
ATOM 1924 CD ARG A 320 226.308 150.115 200.257 1.00 49.32 C
ATOM 1925 NE ARG A 320 225.760 148.931 199.603 1.00 49.32 N
ATOM 1926 CZ ARG A 320 225.456 148.868 198.311 1.00 49.32 C
ATOM 1927 NH1 ARG A 320 225.644 149.926 197.534 1.00 49.32 N
ATOM 1928 NH2 ARG A 320 224.964 147.751 197.795 1.00 49.32 N
ATOM 1929 N LEU A 321 225.108 152.001 204.590 1.00 45.96 N
ATOM 1930 CA LEU A 321 225.736 153.081 205.334 1.00 45.96 C
ATOM 1931 C LEU A 321 224.653 153.980 205.905 1.00 45.96 C
ATOM 1932 O LEU A 321 223.619 154.194 205.270 1.00 45.96 O
ATOM 1933 CB LEU A 321 226.686 153.897 204.452 1.00 45.96 C
ATOM 1934 CG LEU A 321 227.920 153.162 203.935 1.00 45.96 C
ATOM 1935 CD1 LEU A 321 228.716 154.064 203.011 1.00 45.96 C
ATOM 1936 CD2 LEU A 321 228.777 152.676 205.089 1.00 45.96 C
ATOM 1937 N VAL A 322 224.898 154.507 207.105 1.00 38.68 N
ATOM 1938 CA VAL A 322 223.974 155.426 207.757 1.00 38.68 C
ATOM 1939 C VAL A 322 224.787 156.446 208.537 1.00 38.68 C
ATOM 1940 O VAL A 322 225.899 156.170 208.990 1.00 38.68 O
ATOM 1941 CB VAL A 322 222.984 154.695 208.692 1.00 38.68 C
ATOM 1942 CG1 VAL A 322 222.083 153.780 207.894 1.00 38.68 C
ATOM 1943 CG2 VAL A 322 223.744 153.902 209.731 1.00 38.68 C
ATOM 1944 N ALA A 323 224.222 157.636 208.694 1.00 37.74 N
ATOM 1945 CA ALA A 323 224.882 158.728 209.390 1.00 37.74 C
ATOM 1946 C ALA A 323 224.207 158.990 210.730 1.00 37.74 C
ATOM 1947 O ALA A 323 223.123 158.482 211.025 1.00 37.74 O
ATOM 1948 CB ALA A 323 224.883 159.998 208.533 1.00 37.74 C
ATOM 1949 N PHE A 324 224.873 159.808 211.543 1.00 36.41 N
ATOM 1950 CA PHE A 324 224.389 160.153 212.879 1.00 36.41 C
ATOM 1951 C PHE A 324 224.872 161.570 213.174 1.00 36.41 C
ATOM 1952 O PHE A 324 226.004 161.758 213.626 1.00 36.41 O
ATOM 1953 CB PHE A 324 224.896 159.168 213.923 1.00 36.41 C
ATOM 1954 CG PHE A 324 224.229 157.827 213.877 1.00 36.41 C
ATOM 1955 CD1 PHE A 324 223.037 157.620 214.533 1.00 36.41 C
ATOM 1956 CD2 PHE A 324 224.795 156.775 213.186 1.00 36.41 C

ATOM 1957 CE1 PHE A 324 222.417 156.393 214.499 1.00 36.41 C
ATOM 1958 CE2 PHE A 324 224.176 155.543 213.152 1.00 36.41 C
ATOM 1959 CZ PHE A 324 222.985 155.354 213.808 1.00 36.41 C
ATOM 1960 N LEU A 325 224.009 162.553 212.931 1.00 35.62 N
ATOM 1961 CA LEU A 325 224.360 163.960 213.110 1.00 35.62 C
ATOM 1962 C LEU A 325 223.841 164.399 214.475 1.00 35.62 C
ATOM 1963 O LEU A 325 222.778 165.000 214.606 1.00 35.62 O
ATOM 1964 CB LEU A 325 223.786 164.800 211.973 1.00 35.62 C
ATOM 1965 CG LEU A 325 224.261 166.244 211.792 1.00 35.62 C
ATOM 1966 CD1 LEU A 325 223.629 167.191 212.792 1.00 35.62 C
ATOM 1967 CD2 LEU A 325 225.771 166.311 211.882 1.00 35.62 C
ATOM 1968 N GLU A 326 224.619 164.087 215.509 1.00 38.60 N
ATOM 1969 CA GLU A 326 224.201 164.366 216.877 1.00 38.60 C
ATOM 1970 C GLU A 326 224.123 165.863 217.138 1.00 38.60 C
ATOM 1971 O GLU A 326 225.150 166.533 217.277 1.00 38.60 O
ATOM 1972 CB GLU A 326 225.158 163.713 217.871 1.00 38.60 C
ATOM 1973 CG GLU A 326 225.117 162.204 217.859 1.00 38.60 C
ATOM 1974 CD GLU A 326 226.095 161.598 218.837 1.00 38.60 C
ATOM 1975 OE1 GLU A 326 226.892 162.358 219.424 1.00 38.60 O
ATOM 1976 OE2 GLU A 326 226.068 160.365 219.020 1.00 38.60 O
ATOM 1977 N ARG A 327 222.908 166.391 217.211 1.00 35.43 N
ATOM 1978 CA ARG A 327 222.693 167.805 217.457 1.00 35.43 C
ATOM 1979 C ARG A 327 222.598 168.040 218.963 1.00 35.43 C
ATOM 1980 O ARG A 327 222.910 167.163 219.772 1.00 35.43 O
ATOM 1981 CB ARG A 327 221.453 168.281 216.707 1.00 35.43 C
ATOM 1982 CG ARG A 327 221.588 168.151 215.203 1.00 35.43 C
ATOM 1983 CD ARG A 327 220.331 168.572 214.466 1.00 35.43 C
ATOM 1984 NE ARG A 327 220.102 170.010 214.529 1.00 35.43 N
ATOM 1985 CZ ARG A 327 219.006 170.606 214.074 1.00 35.43 C
ATOM 1986 NH1 ARG A 327 218.041 169.882 213.526 1.00 35.43 N
ATOM 1987 NH2 ARG A 327 218.874 171.923 214.164 1.00 35.43 N
ATOM 1988 N ALA A 328 222.166 169.238 219.358 1.00 40.68 N
ATOM 1989 CA ALA A 328 222.109 169.572 220.775 1.00 40.68 C
ATOM 1990 C ALA A 328 220.901 168.960 221.469 1.00 40.68 C

ATOM 1991 O ALA A 328 220.945 168.727 222.682 1.00 40.68 O
ATOM 1992 CB ALA A 328 222.097 171.090 220.955 1.00 40.68 C
ATOM 1993 N ASP A 329 219.820 168.696 220.731 1.00 40.51 N
ATOM 1994 CA ASP A 329 218.608 168.173 221.348 1.00 40.51 C
ATOM 1995 C ASP A 329 217.934 167.084 220.519 1.00 40.51 C
ATOM 1996 O ASP A 329 216.730 166.856 220.679 1.00 40.51 O
ATOM 1997 CB ASP A 329 217.611 169.306 221.613 1.00 40.51 C
ATOM 1998 CG ASP A 329 217.232 170.056 220.352 1.00 40.51 C
ATOM 1999 OD1 ASP A 329 217.814 169.767 219.286 1.00 40.51 O
ATOM 2000 OD2 ASP A 329 216.348 170.934 220.425 1.00 40.51 O
ATOM 2001 N SER A 330 218.664 166.406 219.644 1.00 34.97 N
ATOM 2002 CA SER A 330 218.084 165.349 218.823 1.00 34.97 C
ATOM 2003 C SER A 330 219.216 164.635 218.096 1.00 34.97 C
ATOM 2004 O SER A 330 220.380 165.038 218.169 1.00 34.97 O
ATOM 2005 CB SER A 330 217.055 165.910 217.843 1.00 34.97 C
ATOM 2006 OG SER A 330 217.672 166.759 216.893 1.00 34.97 O
ATOM 2007 N VAL A 331 218.861 163.565 217.389 1.00 29.47 N
ATOM 2008 CA VAL A 331 219.827 162.793 216.620 1.00 29.47 C
ATOM 2009 C VAL A 331 219.220 162.430 215.273 1.00 29.47 C
ATOM 2010 O VAL A 331 218.427 161.489 215.172 1.00 29.47 O
ATOM 2011 CB VAL A 331 220.263 161.532 217.385 1.00 29.47 C
ATOM 2012 CG1 VAL A 331 221.139 160.664 216.512 1.00 29.47 C
ATOM 2013 CG2 VAL A 331 220.995 161.916 218.650 1.00 29.47 C
ATOM 2014 N ILE A 332 219.588 163.164 214.233 1.00 32.19 N
ATOM 2015 CA ILE A 332 219.113 162.893 212.884 1.00 32.19 C
ATOM 2016 C ILE A 332 220.010 161.833 212.268 1.00 32.19 C
ATOM 2017 O ILE A 332 221.218 161.790 212.523 1.00 32.19 O
ATOM 2018 CB ILE A 332 219.090 164.176 212.030 1.00 32.19 C
ATOM 2019 CG1 ILE A 332 218.138 165.198 212.643 1.00 32.19 C
ATOM 2020 CG2 ILE A 332 218.663 163.865 210.615 1.00 32.19 C
ATOM 2021 CD1 ILE A 332 218.231 166.565 212.020 1.00 32.19 C
ATOM 2022 N SER A 333 219.419 160.960 211.454 1.00 35.76 N
ATOM 2023 CA SER A 333 220.171 159.849 210.873 1.00 35.76 C
ATOM 2024 C SER A 333 219.488 159.441 209.573 1.00 35.76 C

ATOM 2025 O SER A 333 218.477 158.736 209.598 1.00 35.76 O
ATOM 2026 CB SER A 333 220.246 158.685 211.846 1.00 35.76 C
ATOM 2027 OG SER A 333 220.925 159.072 213.023 1.00 35.76 O
ATOM 2028 N TRP A 334 220.047 159.877 208.451 1.00 39.64 N
ATOM 2029 CA TRP A 334 219.520 159.506 207.147 1.00 39.64 C
ATOM 2030 C TRP A 334 220.189 158.215 206.680 1.00 39.64 C
ATOM 2031 O TRP A 334 220.889 157.536 207.436 1.00 39.64 O
ATOM 2032 CB TRP A 334 219.706 160.655 206.160 1.00 39.64 C
ATOM 2033 CG TRP A 334 221.129 161.031 205.924 1.00 39.64 C
ATOM 2034 CD1 TRP A 334 221.948 160.555 204.948 1.00 39.64 C
ATOM 2035 CD2 TRP A 334 221.911 161.951 206.690 1.00 39.64 C
ATOM 2036 NE1 TRP A 334 223.189 161.129 205.050 1.00 39.64 N
ATOM 2037 CE2 TRP A 334 223.193 161.989 206.115 1.00 39.64 C
ATOM 2038 CE3 TRP A 334 221.651 162.748 207.806 1.00 39.64 C
ATOM 2039 CZ2 TRP A 334 224.210 162.789 206.617 1.00 39.64 C
ATOM 2040 CZ3 TRP A 334 222.660 163.542 208.301 1.00 39.64 C
ATOM 2041 CH2 TRP A 334 223.925 163.558 207.708 1.00 39.64 C
ATOM 2042 N ASP A 335 219.975 157.860 205.420 1.00 44.05 N
ATOM 2043 CA ASP A 335 220.590 156.693 204.807 1.00 44.05 C
ATOM 2044 C ASP A 335 221.459 157.175 203.657 1.00 44.05 C
ATOM 2045 O ASP A 335 220.982 157.912 202.788 1.00 44.05 O
ATOM 2046 CB ASP A 335 219.526 155.707 204.319 1.00 44.05 C
ATOM 2047 CG ASP A 335 220.110 154.375 203.897 1.00 44.05 C
ATOM 2048 OD1 ASP A 335 221.347 154.230 203.922 1.00 44.05 O
ATOM 2049 OD2 ASP A 335 219.328 153.467 203.547 1.00 44.05 O
ATOM 2050 N ILE A 336 222.735 156.779 203.670 1.00 47.16 N
ATOM 2051 CA ILE A 336 223.699 157.309 202.710 1.00 47.16 C
ATOM 2052 C ILE A 336 223.244 156.973 201.299 1.00 47.16 C
ATOM 2053 O ILE A 336 223.136 155.800 200.924 1.00 47.16 O
ATOM 2054 CB ILE A 336 225.100 156.770 202.995 1.00 47.16 C
ATOM 2055 CG1 ILE A 336 225.559 157.216 204.379 1.00 47.16 C
ATOM 2056 CG2 ILE A 336 226.069 157.269 201.950 1.00 47.16 C
ATOM 2057 CD1 ILE A 336 225.645 158.714 204.519 1.00 47.16 C
ATOM 2058 N GLN A 337 222.973 158.007 200.510 1.00 54.18 N

ATOM 2059 CA GLN A 337 222.307 157.843 199.226 1.00 54.18 C
ATOM 2060 C GLN A 337 223.301 157.402 198.152 1.00 54.18 C
ATOM 2061 O GLN A 337 224.425 156.979 198.434 1.00 54.18 O
ATOM 2062 CB GLN A 337 221.581 159.127 198.843 1.00 54.18 C
ATOM 2063 CG GLN A 337 220.422 159.457 199.757 1.00 54.18 C
ATOM 2064 CD GLN A 337 219.370 158.371 199.765 1.00 54.18 C
ATOM 2065 OE1 GLN A 337 219.183 157.682 200.764 1.00 54.18 O
ATOM 2066 NE2 GLN A 337 218.686 158.202 198.644 1.00 54.18 N
ATOM 2067 N ASN A 338 222.875 157.504 196.896 1.00 79.21 N
ATOM 2068 CA ASN A 338 223.500 156.801 195.778 1.00 79.21 C
ATOM 2069 C ASN A 338 223.212 157.609 194.522 1.00 79.21 C
ATOM 2070 O ASN A 338 222.046 157.854 194.200 1.00 79.21 O
ATOM 2071 CB ASN A 338 222.923 155.381 195.719 1.00 79.21 C
ATOM 2072 CG ASN A 338 223.712 154.409 194.839 1.00 79.21 C
ATOM 2073 OD1 ASN A 338 223.755 153.220 195.159 1.00 79.21 O
ATOM 2074 ND2 ASN A 338 224.280 154.878 193.721 1.00 79.21 N
ATOM 2075 N GLU A 339 224.266 158.021 193.822 1.00 86.57 N
ATOM 2076 CA GLU A 339 224.143 159.085 192.829 1.00 86.57 C
ATOM 2077 C GLU A 339 223.275 158.675 191.643 1.00 86.57 C
ATOM 2078 O GLU A 339 223.259 157.514 191.228 1.00 86.57 O
ATOM 2079 CB GLU A 339 225.528 159.509 192.341 1.00 86.57 C
ATOM 2080 CG GLU A 339 226.365 160.206 193.403 1.00 86.57 C
ATOM 2081 CD GLU A 339 227.714 160.665 192.879 1.00 86.57 C
ATOM 2082 OE1 GLU A 339 228.043 160.344 191.718 1.00 86.57 O
ATOM 2083 OE2 GLU A 339 228.445 161.350 193.625 1.00 86.57 O
ATOM 2084 N LYS A 340 222.555 159.653 191.097 1.00103.76 N
ATOM 2085 CA LYS A 340 221.649 159.433 189.980 1.00103.76 C
ATOM 2086 C LYS A 340 222.417 159.442 188.655 1.00103.76 C
ATOM 2087 O LYS A 340 223.639 159.602 188.612 1.00103.76 O
ATOM 2088 CB LYS A 340 220.552 160.494 189.986 1.00103.76 C
ATOM 2089 CG LYS A 340 221.073 161.909 189.810 1.00103.76 C
ATOM 2090 CD LYS A 340 219.939 162.916 189.775 1.00103.76 C
ATOM 2091 CE LYS A 340 219.322 163.103 191.147 1.00103.76 C
ATOM 2092 NZ LYS A 340 218.307 164.190 191.138 1.00103.76 N

ATOM 2093 N ASN A 341 221.683 159.252 187.555 1.00131.08 N
ATOM 2094 CA ASN A 341 222.317 159.234 186.236 1.00131.08 C
ATOM 2095 C ASN A 341 222.514 160.637 185.668 1.00131.08 C
ATOM 2096 O ASN A 341 223.644 161.117 185.534 1.00131.08 O
ATOM 2097 CB ASN A 341 221.481 158.408 185.251 1.00131.08 C
ATOM 2098 CG ASN A 341 221.555 156.915 185.498 1.00131.08 C
ATOM 2099 OD1 ASN A 341 222.565 156.396 185.971 1.00131.08 O
ATOM 2100 ND2 ASN A 341 220.480 156.212 185.120 1.00131.08 N
ATOM 2101 N VAL A 342 221.410 161.310 185.342 1.00128.04 N
ATOM 2102 CA VAL A 342 221.451 162.487 184.482 1.00128.04 C
ATOM 2103 C VAL A 342 220.111 163.211 184.531 1.00128.04 C
ATOM 2104 O VAL A 342 219.076 162.604 184.829 1.00128.04 O
ATOM 2105 CB VAL A 342 221.816 162.089 183.040 1.00128.04 C
ATOM 2106 CG1 VAL A 342 220.705 161.254 182.424 1.00128.04 C
ATOM 2107 CG2 VAL A 342 222.114 163.317 182.196 1.00128.04 C
ATOM 2108 N THR A 343 220.117 164.511 184.233 1.00127.88 N
ATOM 2109 CA THR A 343 218.907 165.321 184.231 1.00127.88 C
ATOM 2110 C THR A 343 218.851 166.177 182.973 1.00127.88 C
ATOM 2111 O THR A 343 219.847 166.790 182.581 1.00127.88 O
ATOM 2112 CB THR A 343 218.839 166.218 185.469 1.00127.88 C
ATOM 2113 OG1 THR A 343 218.866 165.405 186.649 1.00127.88 O
ATOM 2114 CG2 THR A 343 217.562 167.041 185.456 1.00127.88 C
ATOM 2115 N CYS A 344 217.675 166.219 182.350 1.00125.65 N
ATOM 2116 CA CYS A 344 217.456 166.972 181.125 1.00125.65 C
ATOM 2117 C CYS A 344 216.942 168.376 181.444 1.00125.65 C
ATOM 2118 O CYS A 344 216.993 168.842 182.585 1.00125.65 O
ATOM 2119 CB CYS A 344 216.492 166.224 180.207 1.00125.65 C
ATOM 2120 SG CYS A 344 217.149 164.708 179.486 1.00125.65 S
ATOM 2121 N ALA A 345 216.449 169.070 180.419 1.00117.14 N
ATOM 2122 CA ALA A 345 215.946 170.434 180.541 1.00117.14 C
ATOM 2123 C ALA A 345 214.642 170.596 179.775 1.00117.14 C
ATOM 2124 O ALA A 345 214.382 171.646 179.180 1.00117.14 O
ATOM 2125 CB ALA A 345 216.975 171.443 180.035 1.00117.14 C
ATOM 2126 N LEU A 346 213.793 169.572 179.787 1.00113.46 N

```
ATOM   2127  CA  LEU A 346     212.609 169.544 178.941  1.00113.46           C
ATOM   2128  C   LEU A 346     211.344 169.540 179.786  1.00113.46           C
ATOM   2129  O   LEU A 346     211.271 168.861 180.814  1.00113.46           O
ATOM   2130  CB  LEU A 346     212.613 168.316 178.023  1.00113.46           C
ATOM   2131  CG  LEU A 346     212.211 166.981 178.654  1.00113.46           C
ATOM   2132  CD1 LEU A 346     211.938 165.947 177.575  1.00113.46           C
ATOM   2133  CD2 LEU A 346     213.267 166.483 179.625  1.00113.46           C
ATOM   2134  N   THR A 347     210.360 170.306 179.349  1.00114.94           N
ATOM   2135  CA  THR A 347     209.016 170.293 179.916  1.00114.94           C
ATOM   2136  C   THR A 347     207.934 170.109 178.862  1.00114.94           C
ATOM   2137  O   THR A 347     206.955 169.402 179.115  1.00114.94           O
ATOM   2138  CB  THR A 347     208.767 171.586 180.698  1.00114.94           C
ATOM   2139  OG1 THR A 347     209.012 172.710 179.845  1.00114.94           O
ATOM   2140  CG2 THR A 347     209.677 171.659 181.910  1.00114.94           C
ATOM   2141  N   PHE A 348     208.093 170.720 177.686  1.00114.73           N
ATOM   2142  CA  PHE A 348     207.196 170.550 176.543  1.00114.73           C
ATOM   2143  C   PHE A 348     205.752 170.895 176.921  1.00114.73           C
ATOM   2144  O   PHE A 348     204.846 170.063 176.895  1.00114.73           O
ATOM   2145  CB  PHE A 348     207.304 169.126 175.986  1.00114.73           C
ATOM   2146  CG  PHE A 348     208.625 168.834 175.337  1.00114.73           C
ATOM   2147  CD1 PHE A 348     209.468 169.866 174.962  1.00114.73           C
ATOM   2148  CD2 PHE A 348     209.031 167.531 175.117  1.00114.73           C
ATOM   2149  CE1 PHE A 348     210.686 169.603 174.370  1.00114.73           C
ATOM   2150  CE2 PHE A 348     210.249 167.262 174.526  1.00114.73           C
ATOM   2151  CZ  PHE A 348     211.078 168.300 174.152  1.00114.73           C
ATOM   2152  N   TRP A 349     205.567 172.165 177.272  1.00115.60           N
ATOM   2153  CA  TRP A 349     204.286 172.654 177.764  1.00115.60           C
ATOM   2154  C   TRP A 349     203.613 173.594 176.770  1.00115.60           C
ATOM   2155  O   TRP A 349     202.773 174.408 177.153  1.00115.60           O
ATOM   2156  CB  TRP A 349     204.462 173.342 179.118  1.00115.60           C
ATOM   2157  CG  TRP A 349     205.377 174.528 179.074  1.00115.60           C
ATOM   2158  CD1 TRP A 349     206.736 174.510 179.151  1.00115.60           C
ATOM   2159  CD2 TRP A 349     205.001 175.909 178.980  1.00115.60           C
ATOM   2160  NE1 TRP A 349     207.234 175.787 179.091  1.00115.60           N
```

ATOM 2161 CE2 TRP A 349 206.189 176.665 178.989 1.00115.60 C
ATOM 2162 CE3 TRP A 349 203.778 176.578 178.886 1.00115.60 C
ATOM 2163 CZ2 TRP A 349 206.189 178.054 178.903 1.00115.60 C
ATOM 2164 CZ3 TRP A 349 203.781 177.956 178.797 1.00115.60 C
ATOM 2165 CH2 TRP A 349 204.978 178.680 178.808 1.00115.60 C
ATOM 2166 N GLU A 350 203.942 173.483 175.486 1.00118.58 N
ATOM 2167 CA GLU A 350 203.324 174.409 174.550 1.00118.58 C
ATOM 2168 C GLU A 350 203.504 173.920 173.122 1.00118.58 C
ATOM 2169 O GLU A 350 204.536 173.340 172.772 1.00118.58 O
ATOM 2170 CB GLU A 350 203.905 175.818 174.703 1.00118.58 C
ATOM 2171 CG GLU A 350 203.253 176.823 173.788 1.00118.58 C
ATOM 2172 CD GLU A 350 201.769 176.935 174.049 1.00118.58 C
ATOM 2173 OE1 GLU A 350 201.346 176.643 175.187 1.00118.58 O
ATOM 2174 OE2 GLU A 350 201.024 177.304 173.118 1.00118.58 O
ATOM 2175 N ALA A 351 202.480 174.168 172.305 1.00121.28 N
ATOM 2176 CA ALA A 351 202.527 173.922 170.864 1.00121.28 C
ATOM 2177 C ALA A 351 201.796 175.078 170.187 1.00121.28 C
ATOM 2178 O ALA A 351 200.575 175.033 170.015 1.00121.28 O
ATOM 2179 CB ALA A 351 201.904 172.580 170.503 1.00121.28 C
ATOM 2180 N SER A 352 202.545 176.110 169.809 1.00113.72 N
ATOM 2181 CA SER A 352 201.987 177.304 169.186 1.00113.72 C
ATOM 2182 C SER A 352 202.155 177.195 167.676 1.00113.72 C
ATOM 2183 O SER A 352 203.270 177.313 167.158 1.00113.72 O
ATOM 2184 CB SER A 352 202.663 178.563 169.722 1.00113.72 C
ATOM 2185 OG SER A 352 202.400 178.732 171.103 1.00113.72 O
ATOM 2186 N GLU A 353 201.046 176.970 166.972 1.00118.07 N
ATOM 2187 CA GLU A 353 201.039 176.943 165.518 1.00118.07 C
ATOM 2188 C GLU A 353 200.706 178.301 164.911 1.00118.07 C
ATOM 2189 O GLU A 353 200.383 178.378 163.721 1.00118.07 O
ATOM 2190 CB GLU A 353 200.057 175.884 165.011 1.00118.07 C
ATOM 2191 CG GLU A 353 198.596 176.198 165.283 1.00118.07 C
ATOM 2192 CD GLU A 353 198.149 175.738 166.655 1.00118.07 C
ATOM 2193 OE1 GLU A 353 199.021 175.460 167.504 1.00118.07 O
ATOM 2194 OE2 GLU A 353 196.925 175.654 166.884 1.00118.07 O

ATOM 2195 N ARG A 354 200.780 179.372 165.703 1.00112.98 N
ATOM 2196 CA ARG A 354 200.493 180.716 165.206 1.00112.98 C
ATOM 2197 C ARG A 354 201.258 181.705 166.080 1.00112.98 C
ATOM 2198 O ARG A 354 200.829 182.012 167.196 1.00112.98 O
ATOM 2199 CB ARG A 354 198.997 180.999 165.219 1.00112.98 C
ATOM 2200 CG ARG A 354 198.633 182.399 164.753 1.00112.98 C
ATOM 2201 CD ARG A 354 198.970 182.597 163.284 1.00112.98 C
ATOM 2202 NE ARG A 354 198.144 181.761 162.420 1.00112.98 N
ATOM 2203 CZ ARG A 354 198.392 181.543 161.133 1.00112.98 C
ATOM 2204 NH1 ARG A 354 199.449 182.098 160.556 1.00112.98 N
ATOM 2205 NH2 ARG A 354 197.584 180.768 160.423 1.00112.98 N
ATOM 2206 N THR A 355 202.386 182.193 165.569 1.00102.67 N
ATOM 2207 CA THR A 355 203.196 183.188 166.254 1.00102.67 C
ATOM 2208 C THR A 355 203.707 184.186 165.223 1.00102.67 C
ATOM 2209 O THR A 355 203.347 184.131 164.044 1.00102.67 O
ATOM 2210 CB THR A 355 204.359 182.543 167.015 1.00102.67 C
ATOM 2211 OG1 THR A 355 205.211 181.855 166.093 1.00102.67 O
ATOM 2212 CG2 THR A 355 203.841 181.560 168.056 1.00102.67 C
ATOM 2213 N ILE A 356 204.554 185.108 165.674 1.00 95.86 N
ATOM 2214 CA ILE A 356 205.110 186.154 164.823 1.00 95.86 C
ATOM 2215 C ILE A 356 206.566 186.356 165.212 1.00 95.86 C
ATOM 2216 O ILE A 356 206.868 186.611 166.383 1.00 95.86 O
ATOM 2217 CB ILE A 356 204.339 187.479 164.942 1.00 95.86 C
ATOM 2218 CG1 ILE A 356 202.931 187.338 164.361 1.00 95.86 C
ATOM 2219 CG2 ILE A 356 205.106 188.597 164.266 1.00 95.86 C
ATOM 2220 CD1 ILE A 356 201.893 186.908 165.366 1.00 95.86 C
ATOM 2221 N ARG A 357 207.465 186.246 164.239 1.00 98.05 N
ATOM 2222 CA ARG A 357 208.905 186.288 164.485 1.00 98.05 C
ATOM 2223 C ARG A 357 209.430 187.638 164.006 1.00 98.05 C
ATOM 2224 O ARG A 357 209.887 187.781 162.872 1.00 98.05 O
ATOM 2225 CB ARG A 357 209.592 185.130 163.773 1.00 98.05 C
ATOM 2226 CG ARG A 357 211.049 184.935 164.116 1.00 98.05 C
ATOM 2227 CD ARG A 357 211.972 185.735 163.224 1.00 98.05 C
ATOM 2228 NE ARG A 357 213.356 185.318 163.399 1.00 98.05 N

ATOM 2229 CZ ARG A 357 214.010 184.517 162.564 1.00 98.05 C
ATOM 2230 NH1 ARG A 357 215.266 184.174 162.816 1.00 98.05 N
ATOM 2231 NH2 ARG A 357 213.422 184.101 161.450 1.00 98.05 N
ATOM 2232 N SER A 358 209.359 188.639 164.877 1.00101.66 N
ATOM 2233 CA SER A 358 209.855 189.960 164.529 1.00101.66 C
ATOM 2234 C SER A 358 211.369 190.035 164.722 1.00101.66 C
ATOM 2235 O SER A 358 212.014 189.095 165.192 1.00101.66 O
ATOM 2236 CB SER A 358 209.157 191.032 165.360 1.00101.66 C
ATOM 2237 OG SER A 358 209.486 190.905 166.729 1.00101.66 O
ATOM 2238 N GLU A 359 211.939 191.185 164.353 1.00108.15 N
ATOM 2239 CA GLU A 359 213.387 191.376 164.426 1.00108.15 C
ATOM 2240 C GLU A 359 213.650 192.881 164.461 1.00108.15 C
ATOM 2241 O GLU A 359 213.478 193.556 163.442 1.00108.15 O
ATOM 2242 CB GLU A 359 214.077 190.714 163.243 1.00108.15 C
ATOM 2243 CG GLU A 359 215.591 190.657 163.332 1.00108.15 C
ATOM 2244 CD GLU A 359 216.262 191.914 162.819 1.00108.15 C
ATOM 2245 OE1 GLU A 359 215.678 192.584 161.941 1.00108.15 O
ATOM 2246 OE2 GLU A 359 217.372 192.231 163.293 1.00108.15 O
ATOM 2247 N ALA A 360 214.055 193.398 165.623 1.00112.90 N
ATOM 2248 CA ALA A 360 214.287 194.840 165.704 1.00112.90 C
ATOM 2249 C ALA A 360 215.689 195.222 165.231 1.00112.90 C
ATOM 2250 O ALA A 360 215.858 195.751 164.129 1.00112.90 O
ATOM 2251 CB ALA A 360 214.047 195.321 167.139 1.00112.90 C
ATOM 2252 N GLU A 361 216.712 194.954 166.045 1.00116.07 N
ATOM 2253 CA GLU A 361 218.087 195.128 165.586 1.00116.07 C
ATOM 2254 C GLU A 361 218.965 193.920 165.883 1.00116.07 C
ATOM 2255 O GLU A 361 219.645 193.395 164.996 1.00116.07 O
ATOM 2256 CB GLU A 361 218.709 196.379 166.208 1.00116.07 C
ATOM 2257 CG GLU A 361 220.132 196.646 165.734 1.00116.07 C
ATOM 2258 CD GLU A 361 220.209 196.910 164.241 1.00116.07 C
ATOM 2259 OE1 GLU A 361 219.196 197.354 163.662 1.00116.07 O
ATOM 2260 OE2 GLU A 361 221.281 196.671 163.646 1.00116.07 O
ATOM 2261 N ASP A 362 218.945 193.477 167.142 1.00115.01 N
ATOM 2262 CA ASP A 362 219.954 192.558 167.652 1.00115.01 C

ATOM 2263 C ASP A 362 219.336 191.484 168.539 1.00115.01 C
ATOM 2264 O ASP A 362 220.070 190.784 169.248 1.00115.01 O
ATOM 2265 CB ASP A 362 221.023 193.342 168.434 1.00115.01 C
ATOM 2266 CG ASP A 362 222.309 192.561 168.628 1.00115.01 C
ATOM 2267 OD1 ASP A 362 222.409 191.431 168.110 1.00115.01 O
ATOM 2268 OD2 ASP A 362 223.220 193.075 169.311 1.00115.01 O
ATOM 2269 N SER A 363 218.015 191.342 168.533 1.00108.52 N
ATOM 2270 CA SER A 363 217.343 190.366 169.384 1.00108.52 C
ATOM 2271 C SER A 363 215.956 190.125 168.817 1.00108.52 C
ATOM 2272 O SER A 363 215.137 191.050 168.780 1.00108.52 O
ATOM 2273 CB SER A 363 217.269 190.868 170.823 1.00108.52 C
ATOM 2274 OG SER A 363 216.452 192.021 170.920 1.00108.52 O
ATOM 2275 N TYR A 364 215.688 188.896 168.377 1.00102.50 N
ATOM 2276 CA TYR A 364 214.397 188.569 167.787 1.00102.50 C
ATOM 2277 C TYR A 364 213.295 188.647 168.834 1.00102.50 C
ATOM 2278 O TYR A 364 213.571 188.849 170.020 1.00102.50 O
ATOM 2279 CB TYR A 364 214.419 187.172 167.161 1.00102.50 C
ATOM 2280 CG TYR A 364 215.386 187.013 166.012 1.00102.50 C
ATOM 2281 CD1 TYR A 364 215.092 187.518 164.755 1.00102.50 C
ATOM 2282 CD2 TYR A 364 216.584 186.334 166.180 1.00102.50 C
ATOM 2283 CE1 TYR A 364 215.971 187.363 163.699 1.00102.50 C
ATOM 2284 CE2 TYR A 364 217.471 186.176 165.134 1.00102.50 C
ATOM 2285 CZ TYR A 364 217.160 186.693 163.895 1.00102.50 C
ATOM 2286 OH TYR A 364 218.038 186.539 162.848 1.00102.50 O
ATOM 2287 N HIS A 365 212.047 188.479 168.407 1.00100.14 N
ATOM 2288 CA HIS A 365 210.909 188.472 169.313 1.00100.14 C
ATOM 2289 C HIS A 365 209.911 187.423 168.850 1.00100.14 C
ATOM 2290 O HIS A 365 209.780 187.153 167.654 1.00100.14 O
ATOM 2291 CB HIS A 365 210.223 189.839 169.383 1.00100.14 C
ATOM 2292 CG HIS A 365 211.086 190.922 169.947 1.00100.14 C
ATOM 2293 ND1 HIS A 365 211.336 191.048 171.296 1.00100.14 N
ATOM 2294 CD2 HIS A 365 211.759 191.929 169.343 1.00100.14 C
ATOM 2295 CE1 HIS A 365 212.123 192.090 171.499 1.00100.14 C
ATOM 2296 NE2 HIS A 365 212.395 192.640 170.330 1.00100.14 N

ATOM 2297 N PHE A 366 209.201 186.841 169.813 1.00 94.92 N
ATOM 2298 CA PHE A 366 208.220 185.791 169.549 1.00 94.92 C
ATOM 2299 C PHE A 366 206.906 186.234 170.180 1.00 94.92 C
ATOM 2300 O PHE A 366 206.604 185.879 171.321 1.00 94.92 O
ATOM 2301 CB PHE A 366 208.698 184.458 170.099 1.00 94.92 C
ATOM 2302 CG PHE A 366 209.942 183.949 169.439 1.00 94.92 C
ATOM 2303 CD1 PHE A 366 209.876 183.273 168.236 1.00 94.92 C
ATOM 2304 CD2 PHE A 366 211.182 184.161 170.015 1.00 94.92 C
ATOM 2305 CE1 PHE A 366 211.021 182.808 167.626 1.00 94.92 C
ATOM 2306 CE2 PHE A 366 212.330 183.698 169.408 1.00 94.92 C
ATOM 2307 CZ PHE A 366 212.249 183.021 168.213 1.00 94.92 C
ATOM 2308 N SER A 367 206.125 187.010 169.430 1.00 97.00 N
ATOM 2309 CA SER A 367 204.859 187.549 169.923 1.00 97.00 C
ATOM 2310 C SER A 367 203.772 186.498 169.724 1.00 97.00 C
ATOM 2311 O SER A 367 202.974 186.545 168.786 1.00 97.00 O
ATOM 2312 CB SER A 367 204.521 188.854 169.215 1.00 97.00 C
ATOM 2313 OG SER A 367 204.280 188.632 167.837 1.00 97.00 O
ATOM 2314 N SER A 368 203.753 185.526 170.632 1.00107.80 N
ATOM 2315 CA SER A 368 202.742 184.481 170.584 1.00107.80 C
ATOM 2316 C SER A 368 201.349 185.079 170.746 1.00107.80 C
ATOM 2317 O SER A 368 201.151 186.069 171.454 1.00107.80 O
ATOM 2318 CB SER A 368 203.001 183.438 171.672 1.00107.80 C
ATOM 2319 OG SER A 368 202.869 184.005 172.964 1.00107.80 O
ATOM 2320 N ALA A 369 200.376 184.462 170.078 1.00109.99 N
ATOM 2321 CA ALA A 369 199.006 184.954 170.057 1.00109.99 C
ATOM 2322 C ALA A 369 198.051 184.069 170.840 1.00109.99 C
ATOM 2323 O ALA A 369 197.333 184.557 171.718 1.00109.99 O
ATOM 2324 CB ALA A 369 198.518 185.087 168.607 1.00109.99 C
ATOM 2325 N LYS A 370 198.023 182.769 170.541 1.00116.06 N
ATOM 2326 CA LYS A 370 197.150 181.864 171.278 1.00116.06 C
ATOM 2327 C LYS A 370 197.573 181.758 172.737 1.00116.06 C
ATOM 2328 O LYS A 370 196.744 181.468 173.607 1.00116.06 O
ATOM 2329 CB LYS A 370 197.142 180.494 170.602 1.00116.06 C
ATOM 2330 CG LYS A 370 196.529 180.530 169.209 1.00116.06 C

ATOM 2331 CD LYS A 370 196.533 179.171 168.532 1.00116.06 C
ATOM 2332 CE LYS A 370 195.951 179.272 167.129 1.00116.06 C
ATOM 2333 NZ LYS A 370 195.961 177.972 166.408 1.00116.06 N
ATOM 2334 N MET A 371 198.853 181.983 173.019 1.00116.90 N
ATOM 2335 CA MET A 371 199.349 182.146 174.375 1.00116.90 C
ATOM 2336 C MET A 371 199.392 183.632 174.724 1.00116.90 C
ATOM 2337 O MET A 371 198.851 184.481 174.011 1.00116.90 O
ATOM 2338 CB MET A 371 200.723 181.499 174.521 1.00116.90 C
ATOM 2339 CG MET A 371 200.711 179.995 174.414 1.00116.90 C
ATOM 2340 SD MET A 371 199.713 179.244 175.711 1.00116.90 S
ATOM 2341 CE MET A 371 200.709 179.611 177.154 1.00116.90 C
ATOM 2342 N THR A 372 200.045 183.959 175.834 1.00110.81 N
ATOM 2343 CA THR A 372 200.305 185.334 176.242 1.00110.81 C
ATOM 2344 C THR A 372 201.786 185.511 176.542 1.00110.81 C
ATOM 2345 O THR A 372 202.181 186.098 177.551 1.00110.81 O
ATOM 2346 CB THR A 372 199.459 185.715 177.451 1.00110.81 C
ATOM 2347 OG1 THR A 372 199.786 184.858 178.552 1.00110.81 O
ATOM 2348 CG2 THR A 372 197.982 185.575 177.127 1.00110.81 C
ATOM 2349 N ALA A 373 202.629 184.996 175.653 1.00101.76 N
ATOM 2350 CA ALA A 373 204.069 184.959 175.860 1.00101.76 C
ATOM 2351 C ALA A 373 204.775 185.930 174.926 1.00101.76 C
ATOM 2352 O ALA A 373 204.372 186.108 173.773 1.00101.76 O
ATOM 2353 CB ALA A 373 204.615 183.545 175.644 1.00101.76 C
ATOM 2354 N THR A 374 205.835 186.554 175.437 1.00 94.32 N
ATOM 2355 CA THR A 374 206.704 187.423 174.653 1.00 94.32 C
ATOM 2356 C THR A 374 208.136 187.148 175.084 1.00 94.32 C
ATOM 2357 O THR A 374 208.481 187.346 176.252 1.00 94.32 O
ATOM 2358 CB THR A 374 206.349 188.900 174.850 1.00 94.32 C
ATOM 2359 OG1 THR A 374 206.496 189.250 176.231 1.00 94.32 O
ATOM 2360 CG2 THR A 374 204.916 189.167 174.415 1.00 94.32 C
ATOM 2361 N PHE A 375 208.962 186.694 174.148 1.00 94.35 N
ATOM 2362 CA PHE A 375 210.271 186.131 174.450 1.00 94.35 C
ATOM 2363 C PHE A 375 211.366 187.015 173.852 1.00 94.35 C
ATOM 2364 O PHE A 375 211.107 188.116 173.360 1.00 94.35 O

ATOM 2365 CB PHE A 375 210.361 184.695 173.929 1.00 94.35 C
ATOM 2366 CG PHE A 375 209.446 183.731 174.632 1.00 94.35 C
ATOM 2367 CD1 PHE A 375 208.892 184.043 175.862 1.00 94.35 C
ATOM 2368 CD2 PHE A 375 209.131 182.515 174.054 1.00 94.35 C
ATOM 2369 CE1 PHE A 375 208.048 183.159 176.502 1.00 94.35 C
ATOM 2370 CE2 PHE A 375 208.288 181.626 174.691 1.00 94.35 C
ATOM 2371 CZ PHE A 375 207.746 181.949 175.916 1.00 94.35 C
ATOM 2372 N LEU A 376 212.605 186.525 173.907 1.00100.89 N
ATOM 2373 CA LEU A 376 213.736 187.282 173.386 1.00100.89 C
ATOM 2374 C LEU A 376 214.979 186.408 173.254 1.00100.89 C
ATOM 2375 O LEU A 376 215.352 185.705 174.198 1.00100.89 O
ATOM 2376 CB LEU A 376 214.026 188.479 174.291 1.00100.89 C
ATOM 2377 CG LEU A 376 215.092 189.460 173.809 1.00100.89 C
ATOM 2378 CD1 LEU A 376 214.622 190.143 172.543 1.00100.89 C
ATOM 2379 CD2 LEU A 376 215.413 190.481 174.887 1.00100.89 C
ATOM 2380 N SER A 377 215.624 186.447 172.093 1.00105.01 N
ATOM 2381 CA SER A 377 216.876 185.742 171.841 1.00105.01 C
ATOM 2382 C SER A 377 217.929 186.742 171.373 1.00105.01 C
ATOM 2383 O SER A 377 217.669 187.942 171.265 1.00105.01 O
ATOM 2384 CB SER A 377 216.679 184.622 170.817 1.00105.01 C
ATOM 2385 OG SER A 377 217.897 183.943 170.571 1.00105.01 O
ATOM 2386 N LYS A 378 219.131 186.245 171.087 1.00105.37 N
ATOM 2387 CA LYS A 378 220.294 187.106 170.879 1.00105.37 C
ATOM 2388 C LYS A 378 220.997 186.786 169.562 1.00105.37 C
ATOM 2389 O LYS A 378 222.221 186.649 169.500 1.00105.37 O
ATOM 2390 CB LYS A 378 221.271 186.988 172.046 1.00105.37 C
ATOM 2391 CG LYS A 378 221.063 188.015 173.156 1.00105.37 C
ATOM 2392 CD LYS A 378 219.707 187.858 173.824 1.00105.37 C
ATOM 2393 CE LYS A 378 219.446 188.970 174.824 1.00105.37 C
ATOM 2394 NZ LYS A 378 220.449 188.967 175.922 1.00105.37 N
ATOM 2395 N LYS A 379 220.225 186.654 168.485 1.00110.36 N
ATOM 2396 CA LYS A 379 220.703 186.601 167.103 1.00110.36 C
ATOM 2397 C LYS A 379 221.477 185.338 166.749 1.00110.36 C
ATOM 2398 O LYS A 379 221.829 185.164 165.576 1.00110.36 O

ATOM 2399 CB LYS A 379 221.609 187.790 166.753 1.00110.36 C
ATOM 2400 CG LYS A 379 220.984 189.147 166.943 1.00110.36 C
ATOM 2401 CD LYS A 379 219.919 189.432 165.911 1.00110.36 C
ATOM 2402 CE LYS A 379 218.552 189.058 166.442 1.00110.36 C
ATOM 2403 NZ LYS A 379 217.479 189.488 165.515 1.00110.36 N
ATOM 2404 N GLN A 380 221.756 184.453 167.702 1.00102.37 N
ATOM 2405 CA GLN A 380 222.661 183.334 167.475 1.00102.37 C
ATOM 2406 C GLN A 380 221.951 182.042 167.837 1.00102.37 C
ATOM 2407 O GLN A 380 221.503 181.875 168.975 1.00102.37 O
ATOM 2408 CB GLN A 380 223.946 183.497 168.292 1.00102.37 C
ATOM 2409 CG GLN A 380 224.794 184.682 167.855 1.00102.37 C
ATOM 2410 CD GLN A 380 226.032 184.870 168.710 1.00102.37 C
ATOM 2411 OE1 GLN A 380 226.237 184.161 169.694 1.00102.37 O
ATOM 2412 NE2 GLN A 380 226.865 185.833 168.335 1.00102.37 N
ATOM 2413 N GLU A 381 221.849 181.135 166.869 1.00106.96 N
ATOM 2414 CA GLU A 381 221.205 179.856 167.109 1.00106.96 C
ATOM 2415 C GLU A 381 221.995 179.049 168.133 1.00106.96 C
ATOM 2416 O GLU A 381 223.150 179.348 168.446 1.00106.96 O
ATOM 2417 CB GLU A 381 221.078 179.067 165.808 1.00106.96 C
ATOM 2418 CG GLU A 381 220.135 179.688 164.797 1.00106.96 C
ATOM 2419 CD GLU A 381 220.065 178.896 163.508 1.00106.96 C
ATOM 2420 OE1 GLU A 381 220.846 177.932 163.362 1.00106.96 O
ATOM 2421 OE2 GLU A 381 219.232 179.239 162.643 1.00106.96 O
ATOM 2422 N VAL A 382 221.358 178.008 168.652 1.00104.50 N
ATOM 2423 CA VAL A 382 221.972 177.149 169.654 1.00104.50 C
ATOM 2424 C VAL A 382 222.708 176.019 168.949 1.00104.50 C
ATOM 2425 O VAL A 382 222.155 175.363 168.059 1.00104.50 O
ATOM 2426 CB VAL A 382 220.922 176.605 170.635 1.00104.50 C
ATOM 2427 CG1 VAL A 382 221.561 175.629 171.602 1.00104.50 C
ATOM 2428 CG2 VAL A 382 220.255 177.749 171.382 1.00104.50 C
ATOM 2429 N ASN A 383 223.966 175.816 169.333 1.00109.20 N
ATOM 2430 CA ASN A 383 224.797 174.755 168.776 1.00109.20 C
ATOM 2431 C ASN A 383 224.115 173.403 168.955 1.00109.20 C
ATOM 2432 O ASN A 383 223.753 173.026 170.074 1.00109.20 O

ATOM 2433 CB ASN A 383 226.148 174.762 169.483 1.00109.20 C
ATOM 2434 CG ASN A 383 227.284 174.262 168.615 1.00109.20 C
ATOM 2435 OD1 ASN A 383 228.441 174.463 168.979 1.00109.20 O
ATOM 2436 ND2 ASN A 383 226.961 173.630 167.466 1.00109.20 N
ATOM 2437 N MET A 384 223.939 172.671 167.858 1.00109.20 N
ATOM 2438 CA MET A 384 223.230 171.396 167.899 1.00109.20 C
ATOM 2439 C MET A 384 224.121 170.221 168.282 1.00109.20 C
ATOM 2440 O MET A 384 223.693 169.072 168.126 1.00109.20 O
ATOM 2441 CB MET A 384 222.570 171.115 166.550 1.00109.20 C
ATOM 2442 CG MET A 384 221.453 172.073 166.210 1.00109.20 C
ATOM 2443 SD MET A 384 220.122 172.021 167.423 1.00109.20 S
ATOM 2444 CE MET A 384 219.445 170.391 167.118 1.00109.20 C
ATOM 2445 N SER A 385 225.334 170.471 168.768 1.00116.31 N
ATOM 2446 CA SER A 385 226.247 169.419 169.203 1.00116.31 C
ATOM 2447 C SER A 385 226.327 169.346 170.725 1.00116.31 C
ATOM 2448 O SER A 385 227.385 169.071 171.295 1.00116.31 O
ATOM 2449 CB SER A 385 227.638 169.623 168.607 1.00116.31 C
ATOM 2450 OG SER A 385 228.251 170.801 169.103 1.00116.31 O
ATOM 2451 N ASP A 386 225.207 169.590 171.398 1.00121.06 N
ATOM 2452 CA ASP A 386 225.133 169.549 172.852 1.00121.06 C
ATOM 2453 C ASP A 386 224.442 168.263 173.283 1.00121.06 C
ATOM 2454 O ASP A 386 223.370 167.925 172.768 1.00121.06 O
ATOM 2455 CB ASP A 386 224.386 170.769 173.396 1.00121.06 C
ATOM 2456 CG ASP A 386 224.438 170.858 174.907 1.00121.06 C
ATOM 2457 OD1 ASP A 386 225.514 171.191 175.444 1.00121.06 O
ATOM 2458 OD2 ASP A 386 223.403 170.602 175.557 1.00121.06 O
ATOM 2459 N SER A 387 225.059 167.550 174.228 1.00122.33 N
ATOM 2460 CA SER A 387 224.528 166.264 174.664 1.00122.33 C
ATOM 2461 C SER A 387 223.198 166.398 175.392 1.00122.33 C
ATOM 2462 O SER A 387 222.433 165.429 175.439 1.00122.33 O
ATOM 2463 CB SER A 387 225.542 165.553 175.564 1.00122.33 C
ATOM 2464 OG SER A 387 225.039 164.310 176.021 1.00122.33 O
ATOM 2465 N ALA A 388 222.902 167.572 175.954 1.00124.10 N
ATOM 2466 CA ALA A 388 221.637 167.775 176.650 1.00124.10 C

ATOM 2467 C ALA A 388 220.442 167.818 175.707 1.00124.10 C
ATOM 2468 O ALA A 388 219.302 167.817 176.183 1.00124.10 O
ATOM 2469 CB ALA A 388 221.690 169.064 177.472 1.00124.10 C
ATOM 2470 N LEU A 389 220.670 167.858 174.396 1.00124.94 N
ATOM 2471 CA LEU A 389 219.592 167.885 173.420 1.00124.94 C
ATOM 2472 C LEU A 389 219.163 166.498 172.964 1.00124.94 C
ATOM 2473 O LEU A 389 218.140 166.381 172.282 1.00124.94 O
ATOM 2474 CB LEU A 389 220.008 168.711 172.199 1.00124.94 C
ATOM 2475 CG LEU A 389 220.248 170.202 172.435 1.00124.94 C
ATOM 2476 CD1 LEU A 389 220.798 170.855 171.177 1.00124.94 C
ATOM 2477 CD2 LEU A 389 218.970 170.890 172.883 1.00124.94 C
ATOM 2478 N ASP A 390 219.920 165.454 173.319 1.00123.83 N
ATOM 2479 CA ASP A 390 219.587 164.101 172.883 1.00123.83 C
ATOM 2480 C ASP A 390 218.201 163.694 173.364 1.00123.83 C
ATOM 2481 O ASP A 390 217.398 163.149 172.599 1.00123.83 O
ATOM 2482 CB ASP A 390 220.641 163.116 173.389 1.00123.83 C
ATOM 2483 CG ASP A 390 221.987 163.312 172.724 1.00123.83 C
ATOM 2484 OD1 ASP A 390 222.017 163.761 171.559 1.00123.83 O
ATOM 2485 OD2 ASP A 390 223.017 163.019 173.367 1.00123.83 O
ATOM 2486 N CYS A 391 217.902 163.954 174.633 1.00127.06 N
ATOM 2487 CA CYS A 391 216.576 163.705 175.180 1.00127.06 C
ATOM 2488 C CYS A 391 215.561 164.767 174.782 1.00127.06 C
ATOM 2489 O CYS A 391 214.409 164.694 175.225 1.00127.06 O
ATOM 2490 CB CYS A 391 216.655 163.609 176.705 1.00127.06 C
ATOM 2491 SG CYS A 391 217.228 165.123 177.502 1.00127.06 S
ATOM 2492 N VAL A 392 215.951 165.742 173.967 1.00122.90 N
ATOM 2493 CA VAL A 392 215.095 166.860 173.596 1.00122.90 C
ATOM 2494 C VAL A 392 214.934 166.965 172.083 1.00122.90 C
ATOM 2495 O VAL A 392 213.820 167.110 171.578 1.00122.90 O
ATOM 2496 CB VAL A 392 215.633 168.182 174.187 1.00122.90 C
ATOM 2497 CG1 VAL A 392 214.773 169.351 173.738 1.00122.90 C
ATOM 2498 CG2 VAL A 392 215.695 168.101 175.705 1.00122.90 C
ATOM 2499 N ARG A 393 216.044 166.896 171.342 1.00121.53 N
ATOM 2500 CA ARG A 393 215.988 167.139 169.903 1.00121.53 C

ATOM 2501 C ARG A 393 215.212 166.054 169.170 1.00121.53 C
ATOM 2502 O ARG A 393 214.556 166.342 168.162 1.00121.53 O
ATOM 2503 CB ARG A 393 217.399 167.258 169.326 1.00121.53 C
ATOM 2504 CG ARG A 393 218.198 165.968 169.351 1.00121.53 C
ATOM 2505 CD ARG A 393 219.588 166.176 168.782 1.00121.53 C
ATOM 2506 NE ARG A 393 219.547 166.492 167.358 1.00121.53 N
ATOM 2507 CZ ARG A 393 219.467 165.580 166.396 1.00121.53 C
ATOM 2508 NH1 ARG A 393 219.436 165.953 165.124 1.00121.53 N
ATOM 2509 NH2 ARG A 393 219.415 164.292 166.706 1.00121.53 N
ATOM 2510 N ASP A 394 215.279 164.807 169.643 1.00122.11 N
ATOM 2511 CA ASP A 394 214.530 163.738 168.990 1.00122.11 C
ATOM 2512 C ASP A 394 213.032 163.996 169.043 1.00122.11 C
ATOM 2513 O ASP A 394 212.307 163.639 168.107 1.00122.11 O
ATOM 2514 CB ASP A 394 214.868 162.392 169.627 1.00122.11 C
ATOM 2515 CG ASP A 394 216.275 161.933 169.301 1.00122.11 C
ATOM 2516 OD1 ASP A 394 216.788 162.313 168.227 1.00122.11 O
ATOM 2517 OD2 ASP A 394 216.866 161.189 170.112 1.00122.11 O
ATOM 2518 N GLU A 395 212.551 164.615 170.117 1.00121.65 N
ATOM 2519 CA GLU A 395 211.173 165.076 170.182 1.00121.65 C
ATOM 2520 C GLU A 395 210.991 166.445 169.541 1.00121.65 C
ATOM 2521 O GLU A 395 209.852 166.847 169.277 1.00121.65 O
ATOM 2522 CB GLU A 395 210.698 165.110 171.639 1.00121.65 C
ATOM 2523 CG GLU A 395 209.249 165.521 171.815 1.00121.65 C
ATOM 2524 CD GLU A 395 208.293 164.566 171.134 1.00121.65 C
ATOM 2525 OE1 GLU A 395 208.663 163.388 170.944 1.00121.65 O
ATOM 2526 OE2 GLU A 395 207.172 164.992 170.788 1.00121.65 O
ATOM 2527 N ALA A 396 212.087 167.159 169.275 1.00119.44 N
ATOM 2528 CA ALA A 396 211.993 168.458 168.617 1.00119.44 C
ATOM 2529 C ALA A 396 211.387 168.331 167.225 1.00119.44 C
ATOM 2530 O ALA A 396 210.656 169.220 166.774 1.00119.44 O
ATOM 2531 CB ALA A 396 213.376 169.105 168.543 1.00119.44 C
ATOM 2532 N ILE A 397 211.683 167.232 166.530 1.00119.44 N
ATOM 2533 CA ILE A 397 211.155 167.029 165.186 1.00119.44 C
ATOM 2534 C ILE A 397 209.743 166.455 165.205 1.00119.44 C

ATOM 2535 O ILE A 397 209.012 166.589 164.215 1.00119.44 O
ATOM 2536 CB ILE A 397 212.104 166.116 164.390 1.00119.44 C
ATOM 2537 CG1 ILE A 397 213.490 166.755 164.289 1.00119.44 C
ATOM 2538 CG2 ILE A 397 211.562 165.841 162.997 1.00119.44 C
ATOM 2539 CD1 ILE A 397 214.549 165.825 163.745 1.00119.44 C
ATOM 2540 N ASN A 398 209.330 165.840 166.313 1.00122.33 N
ATOM 2541 CA ASN A 398 208.055 165.129 166.342 1.00122.33 C
ATOM 2542 C ASN A 398 206.876 166.092 166.259 1.00122.33 C
ATOM 2543 O ASN A 398 206.066 166.023 165.327 1.00122.33 O
ATOM 2544 CB ASN A 398 207.964 164.276 167.609 1.00122.33 C
ATOM 2545 CG ASN A 398 208.921 163.100 167.591 1.00122.33 C
ATOM 2546 OD1 ASN A 398 209.103 162.449 166.563 1.00122.33 O
ATOM 2547 ND2 ASN A 398 209.531 162.817 168.736 1.00122.33 N
ATOM 2548 N LYS A 399 206.764 167.002 167.228 1.00120.61 N
ATOM 2549 CA LYS A 399 205.547 167.796 167.358 1.00120.61 C
ATOM 2550 C LYS A 399 205.379 168.797 166.220 1.00120.61 C
ATOM 2551 O LYS A 399 204.250 169.044 165.782 1.00120.61 O
ATOM 2552 CB LYS A 399 205.540 168.524 168.701 1.00120.61 C
ATOM 2553 CG LYS A 399 205.410 167.609 169.908 1.00120.61 C
ATOM 2554 CD LYS A 399 205.372 168.414 171.197 1.00120.61 C
ATOM 2555 CE LYS A 399 205.258 167.515 172.415 1.00120.61 C
ATOM 2556 NZ LYS A 399 205.231 168.306 173.676 1.00120.61 N
ATOM 2557 N LEU A 400 206.477 169.378 165.732 1.00120.30 N
ATOM 2558 CA LEU A 400 206.382 170.456 164.751 1.00120.30 C
ATOM 2559 C LEU A 400 205.754 169.972 163.448 1.00120.30 C
ATOM 2560 O LEU A 400 204.774 170.550 162.965 1.00120.30 O
ATOM 2561 CB LEU A 400 207.764 171.062 164.505 1.00120.30 C
ATOM 2562 CG LEU A 400 208.200 172.107 165.534 1.00120.30 C
ATOM 2563 CD1 LEU A 400 208.465 171.467 166.885 1.00120.30 C
ATOM 2564 CD2 LEU A 400 209.430 172.858 165.049 1.00120.30 C
ATOM 2565 N GLN A 401 206.315 168.914 162.856 1.00121.71 N
ATOM 2566 CA GLN A 401 205.680 168.311 161.687 1.00121.71 C
ATOM 2567 C GLN A 401 204.272 167.831 162.012 1.00121.71 C
ATOM 2568 O GLN A 401 203.392 167.847 161.144 1.00121.71 O

ATOM 2569 CB GLN A 401 206.531 167.158 161.159 1.00121.71 C
ATOM 2570 CG GLN A 401 207.872 167.591 160.592 1.00121.71 C
ATOM 2571 CD GLN A 401 208.697 166.424 160.089 1.00121.71 C
ATOM 2572 OE1 GLN A 401 208.295 165.268 160.208 1.00121.71 O
ATOM 2573 NE2 GLN A 401 209.862 166.722 159.526 1.00121.71 N
ATOM 2574 N GLN A 402 204.044 167.401 163.254 1.00122.38 N
ATOM 2575 CA GLN A 402 202.690 167.107 163.706 1.00122.38 C
ATOM 2576 C GLN A 402 201.843 168.373 163.744 1.00122.38 C
ATOM 2577 O GLN A 402 200.697 168.382 163.280 1.00122.38 O
ATOM 2578 CB GLN A 402 202.740 166.446 165.083 1.00122.38 C
ATOM 2579 CG GLN A 402 201.393 166.026 165.634 1.00122.38 C
ATOM 2580 CD GLN A 402 201.516 165.347 166.983 1.00122.38 C
ATOM 2581 OE1 GLN A 402 202.613 165.220 167.527 1.00122.38 O
ATOM 2582 NE2 GLN A 402 200.389 164.908 167.532 1.00122.38 N
ATOM 2583 N ILE A 403 202.395 169.456 164.297 1.00125.90 N
ATOM 2584 CA ILE A 403 201.654 170.710 164.365 1.00125.90 C
ATOM 2585 C ILE A 403 201.621 171.398 163.008 1.00125.90 C
ATOM 2586 O ILE A 403 200.624 172.040 162.656 1.00125.90 O
ATOM 2587 CB ILE A 403 202.249 171.627 165.448 1.00125.90 C
ATOM 2588 CG1 ILE A 403 202.162 170.956 166.819 1.00125.90 C
ATOM 2589 CG2 ILE A 403 201.524 172.958 165.469 1.00125.90 C
ATOM 2590 CD1 ILE A 403 200.745 170.666 167.262 1.00125.90 C
ATOM 2591 N PHE A 404 202.700 171.291 162.228 1.00126.78 N
ATOM 2592 CA PHE A 404 202.676 171.811 160.864 1.00126.78 C
ATOM 2593 C PHE A 404 201.614 171.104 160.035 1.00126.78 C
ATOM 2594 O PHE A 404 200.815 171.746 159.343 1.00126.78 O
ATOM 2595 CB PHE A 404 204.047 171.654 160.208 1.00126.78 C
ATOM 2596 CG PHE A 404 204.084 172.114 158.779 1.00126.78 C
ATOM 2597 CD1 PHE A 404 204.141 173.461 158.471 1.00126.78 C
ATOM 2598 CD2 PHE A 404 204.039 171.197 157.743 1.00126.78 C
ATOM 2599 CE1 PHE A 404 204.167 173.884 157.155 1.00126.78 C
ATOM 2600 CE2 PHE A 404 204.062 171.615 156.428 1.00126.78 C
ATOM 2601 CZ PHE A 404 204.127 172.959 156.134 1.00126.78 C
ATOM 2602 N ASN A 405 201.597 169.775 160.090 1.00128.68 N

ATOM 2603 CA ASN A 405 200.610 168.992 159.366 1.00128.68 C
ATOM 2604 C ASN A 405 199.272 168.942 160.093 1.00128.68 C
ATOM 2605 O ASN A 405 198.316 168.358 159.572 1.00128.68 O
ATOM 2606 CB ASN A 405 201.151 167.578 159.132 1.00128.68 C
ATOM 2607 CG ASN A 405 200.396 166.838 158.054 1.00128.68 C
ATOM 2608 OD1 ASN A 405 199.478 167.389 157.447 1.00128.68 O
ATOM 2609 ND2 ASN A 405 200.784 165.581 157.808 1.00128.68 N
ATOM 2610 N THR A 406 199.186 169.532 161.287 1.00128.87 N
ATOM 2611 CA THR A 406 197.893 169.690 161.942 1.00128.87 C
ATOM 2612 C THR A 406 196.943 170.506 161.075 1.00128.87 C
ATOM 2613 O THR A 406 195.906 170.004 160.628 1.00128.87 O
ATOM 2614 CB THR A 406 198.073 170.347 163.313 1.00128.87 C
ATOM 2615 OG1 THR A 406 198.882 169.508 164.148 1.00128.87 O
ATOM 2616 CG2 THR A 406 196.726 170.572 163.980 1.00128.87 C
ATOM 2617 N SER A 407 197.298 171.763 160.800 1.00132.14 N
ATOM 2618 CA SER A 407 196.439 172.662 160.042 1.00132.14 C
ATOM 2619 C SER A 407 197.042 173.142 158.730 1.00132.14 C
ATOM 2620 O SER A 407 196.472 174.043 158.105 1.00132.14 O
ATOM 2621 CB SER A 407 196.065 173.888 160.888 1.00132.14 C
ATOM 2622 OG SER A 407 195.284 174.800 160.136 1.00132.14 O
ATOM 2623 N TYR A 408 198.171 172.586 158.299 1.00131.17 N
ATOM 2624 CA TYR A 408 198.838 172.998 157.066 1.00131.17 C
ATOM 2625 C TYR A 408 199.302 171.737 156.340 1.00131.17 C
ATOM 2626 O TYR A 408 200.374 171.199 156.628 1.00131.17 O
ATOM 2627 CB TYR A 408 199.998 173.938 157.361 1.00131.17 C
ATOM 2628 CG TYR A 408 199.584 175.192 158.090 1.00131.17 C
ATOM 2629 CD1 TYR A 408 198.940 176.230 157.429 1.00131.17 C
ATOM 2630 CD2 TYR A 408 199.853 175.351 159.445 1.00131.17 C
ATOM 2631 CE1 TYR A 408 198.567 177.379 158.098 1.00131.17 C
ATOM 2632 CE2 TYR A 408 199.480 176.494 160.120 1.00131.17 C
ATOM 2633 CZ TYR A 408 198.831 177.504 159.440 1.00131.17 C
ATOM 2634 OH TYR A 408 198.456 178.648 160.106 1.00131.17 O
ATOM 2635 N ASN A 409 198.481 171.263 155.404 1.00133.86 N
ATOM 2636 CA ASN A 409 198.813 170.059 154.650 1.00133.86 C

ATOM 2637 C ASN A 409 199.764 170.362 153.494 1.00133.86 C
ATOM 2638 O ASN A 409 200.909 169.899 153.480 1.00133.86 O
ATOM 2639 CB ASN A 409 197.519 169.397 154.168 1.00133.86 C
ATOM 2640 CG ASN A 409 196.549 170.393 153.556 1.00133.86 C
ATOM 2641 OD1 ASN A 409 196.877 171.568 153.389 1.00133.86 O
ATOM 2642 ND2 ASN A 409 195.346 169.934 153.237 1.00133.86 N
ATOM 2643 N GLN A 410 199.305 171.137 152.513 1.00132.53 N
ATOM 2644 CA GLN A 410 200.210 171.649 151.491 1.00132.53 C
ATOM 2645 C GLN A 410 199.887 173.089 151.110 1.00132.53 C
ATOM 2646 O GLN A 410 200.492 173.602 150.159 1.00132.53 O
ATOM 2647 CB GLN A 410 200.191 170.753 150.243 1.00132.53 C
ATOM 2648 CG GLN A 410 198.876 170.743 149.488 1.00132.53 C
ATOM 2649 CD GLN A 410 197.917 169.693 150.011 1.00132.53 C
ATOM 2650 OE1 GLN A 410 198.077 169.188 151.121 1.00132.53 O
ATOM 2651 NE2 GLN A 410 196.921 169.349 149.204 1.00132.53 N
ATOM 2652 N THR A 411 198.955 173.751 151.798 1.00128.25 N
ATOM 2653 CA THR A 411 198.679 175.156 151.523 1.00128.25 C
ATOM 2654 C THR A 411 199.926 176.001 151.747 1.00128.25 C
ATOM 2655 O THR A 411 200.468 176.592 150.807 1.00128.25 O
ATOM 2656 CB THR A 411 197.525 175.648 152.398 1.00128.25 C
ATOM 2657 OG1 THR A 411 197.881 175.519 153.780 1.00128.25 O
ATOM 2658 CG2 THR A 411 196.266 174.838 152.123 1.00128.25 C
ATOM 2659 N TYR A 412 200.408 176.054 152.988 1.00121.68 N
ATOM 2660 CA TYR A 412 201.687 176.692 153.261 1.00121.68 C
ATOM 2661 C TYR A 412 202.821 175.702 153.029 1.00121.68 C
ATOM 2662 O TYR A 412 202.720 174.523 153.379 1.00121.68 O
ATOM 2663 CB TYR A 412 201.776 177.214 154.697 1.00121.68 C
ATOM 2664 CG TYR A 412 200.867 178.370 155.053 1.00121.68 C
ATOM 2665 CD1 TYR A 412 200.042 178.960 154.109 1.00121.68 C
ATOM 2666 CD2 TYR A 412 200.880 178.904 156.332 1.00121.68 C
ATOM 2667 CE1 TYR A 412 199.218 180.016 154.447 1.00121.68 C
ATOM 2668 CE2 TYR A 412 200.074 179.974 156.669 1.00121.68 C
ATOM 2669 CZ TYR A 412 199.248 180.527 155.722 1.00121.68 C
ATOM 2670 OH TYR A 412 198.436 181.588 156.053 1.00121.68 O

ATOM 2671 N GLU A 413 203.904 176.193 152.439 1.00120.56 N
ATOM 2672 CA GLU A 413 205.118 175.416 152.257 1.00120.56 C
ATOM 2673 C GLU A 413 206.120 175.766 153.347 1.00120.56 C
ATOM 2674 O GLU A 413 206.230 176.926 153.756 1.00120.56 O
ATOM 2675 CB GLU A 413 205.737 175.672 150.883 1.00120.56 C
ATOM 2676 CG GLU A 413 204.906 175.158 149.727 1.00120.56 C
ATOM 2677 CD GLU A 413 205.562 175.409 148.388 1.00120.56 C
ATOM 2678 OE1 GLU A 413 206.608 176.089 148.355 1.00120.56 O
ATOM 2679 OE2 GLU A 413 205.032 174.924 147.367 1.00120.56 O
ATOM 2680 N LYS A 414 206.843 174.753 153.816 1.00120.41 N
ATOM 2681 CA LYS A 414 207.849 174.962 154.844 1.00120.41 C
ATOM 2682 C LYS A 414 208.953 175.886 154.337 1.00120.41 C
ATOM 2683 O LYS A 414 209.225 175.978 153.137 1.00120.41 O
ATOM 2684 CB LYS A 414 208.449 173.627 155.281 1.00120.41 C
ATOM 2685 CG LYS A 414 207.504 172.743 156.071 1.00120.41 C
ATOM 2686 CD LYS A 414 208.097 171.360 156.276 1.00120.41 C
ATOM 2687 CE LYS A 414 209.283 171.390 157.222 1.00120.41 C
ATOM 2688 NZ LYS A 414 209.788 170.018 157.497 1.00120.41 N
ATOM 2689 N TYR A 415 209.595 176.575 155.276 1.00117.92 N
ATOM 2690 CA TYR A 415 210.703 177.470 154.969 1.00117.92 C
ATOM 2691 C TYR A 415 211.864 177.152 155.895 1.00117.92 C
ATOM 2692 O TYR A 415 211.734 177.265 157.118 1.00117.92 O
ATOM 2693 CB TYR A 415 210.296 178.937 155.114 1.00117.92 C
ATOM 2694 CG TYR A 415 211.415 179.902 154.797 1.00117.92 C
ATOM 2695 CD1 TYR A 415 211.810 180.130 153.485 1.00117.92 C
ATOM 2696 CD2 TYR A 415 212.070 180.592 155.807 1.00117.92 C
ATOM 2697 CE1 TYR A 415 212.829 181.013 153.191 1.00117.92 C
ATOM 2698 CE2 TYR A 415 213.090 181.479 155.521 1.00117.92 C
ATOM 2699 CZ TYR A 415 213.465 181.686 154.211 1.00117.92 C
ATOM 2700 OH TYR A 415 214.479 182.567 153.918 1.00117.92 O
ATOM 2701 N GLY A 416 212.994 176.765 155.314 1.00116.10 N
ATOM 2702 CA GLY A 416 214.174 176.477 156.102 1.00116.10 C
ATOM 2703 C GLY A 416 214.007 175.287 157.022 1.00116.10 C
ATOM 2704 O GLY A 416 213.033 174.538 156.916 1.00116.10 O

ATOM 2705 N ASN A 417 214.959 175.098 157.924 1.00107.37 N
ATOM 2706 CA ASN A 417 214.963 173.967 158.831 1.00107.37 C
ATOM 2707 C ASN A 417 214.582 174.452 160.225 1.00107.37 C
ATOM 2708 O ASN A 417 214.196 175.608 160.415 1.00107.37 O
ATOM 2709 CB ASN A 417 216.337 173.306 158.785 1.00107.37 C
ATOM 2710 CG ASN A 417 216.718 172.892 157.386 1.00107.37 C
ATOM 2711 OD1 ASN A 417 215.936 172.262 156.672 1.00107.37 O
ATOM 2712 ND2 ASN A 417 217.914 173.279 156.971 1.00107.37 N
ATOM 2713 N VAL A 418 214.683 173.569 161.217 1.00103.67 N
ATOM 2714 CA VAL A 418 214.464 173.990 162.593 1.00103.67 C
ATOM 2715 C VAL A 418 215.596 174.914 163.015 1.00103.67 C
ATOM 2716 O VAL A 418 216.750 174.747 162.597 1.00103.67 O
ATOM 2717 CB VAL A 418 214.359 172.774 163.528 1.00103.67 C
ATOM 2718 CG1 VAL A 418 215.677 172.023 163.561 1.00103.67 C
ATOM 2719 CG2 VAL A 418 213.959 173.214 164.929 1.00103.67 C
ATOM 2720 N SER A 419 215.270 175.903 163.841 1.00102.75 N
ATOM 2721 CA SER A 419 216.249 176.857 164.340 1.00102.75 C
ATOM 2722 C SER A 419 216.016 177.048 165.828 1.00102.75 C
ATOM 2723 O SER A 419 214.907 177.389 166.248 1.00102.75 O
ATOM 2724 CB SER A 419 216.149 178.194 163.599 1.00102.75 C
ATOM 2725 OG SER A 419 217.118 179.117 164.063 1.00102.75 O
ATOM 2726 N VAL A 420 217.062 176.836 166.617 1.00103.53 N
ATOM 2727 CA VAL A 420 216.980 176.850 168.071 1.00103.53 C
ATOM 2728 C VAL A 420 217.510 178.188 168.564 1.00103.53 C
ATOM 2729 O VAL A 420 218.626 178.590 168.216 1.00103.53 O
ATOM 2730 CB VAL A 420 217.756 175.676 168.682 1.00103.53 C
ATOM 2731 CG1 VAL A 420 217.065 174.368 168.355 1.00103.53 C
ATOM 2732 CG2 VAL A 420 219.157 175.648 168.118 1.00103.53 C
ATOM 2733 N PHE A 421 216.702 178.881 169.364 1.00102.24 N
ATOM 2734 CA PHE A 421 217.037 180.197 169.899 1.00102.24 C
ATOM 2735 C PHE A 421 216.943 180.134 171.417 1.00102.24 C
ATOM 2736 O PHE A 421 215.843 180.036 171.970 1.00102.24 O
ATOM 2737 CB PHE A 421 216.099 181.271 169.348 1.00102.24 C
ATOM 2738 CG PHE A 421 216.248 181.514 167.876 1.00102.24 C

ATOM 2739 CD1 PHE A 421 217.240 182.347 167.393 1.00102.24 C
ATOM 2740 CD2 PHE A 421 215.392 180.909 166.976 1.00102.24 C
ATOM 2741 CE1 PHE A 421 217.374 182.572 166.039 1.00102.24 C
ATOM 2742 CE2 PHE A 421 215.522 181.131 165.622 1.00102.24 C
ATOM 2743 CZ PHE A 421 216.515 181.962 165.153 1.00102.24 C
ATOM 2744 N GLU A 422 218.088 180.188 172.090 1.00101.93 N
ATOM 2745 CA GLU A 422 218.083 180.225 173.545 1.00101.93 C
ATOM 2746 C GLU A 422 217.592 181.584 174.026 1.00101.93 C
ATOM 2747 O GLU A 422 218.108 182.625 173.611 1.00101.93 O
ATOM 2748 CB GLU A 422 219.479 179.936 174.092 1.00101.93 C
ATOM 2749 CG GLU A 422 219.538 179.888 175.609 1.00101.93 C
ATOM 2750 CD GLU A 422 220.912 179.526 176.132 1.00101.93 C
ATOM 2751 OE1 GLU A 422 221.827 179.317 175.308 1.00101.93 O
ATOM 2752 OE2 GLU A 422 221.077 179.451 177.367 1.00101.93 O
ATOM 2753 N THR A 423 216.591 181.572 174.900 1.00100.35 N
ATOM 2754 CA THR A 423 215.988 182.802 175.395 1.00100.35 C
ATOM 2755 C THR A 423 216.859 183.396 176.500 1.00100.35 C
ATOM 2756 O THR A 423 217.999 182.979 176.722 1.00100.35 O
ATOM 2757 CB THR A 423 214.567 182.539 175.882 1.00100.35 C
ATOM 2758 OG1 THR A 423 214.603 181.609 176.971 1.00100.35 O
ATOM 2759 CG2 THR A 423 213.720 181.964 174.759 1.00100.35 C
ATOM 2760 N THR A 424 216.324 184.392 177.204 1.00105.25 N
ATOM 2761 CA THR A 424 217.032 185.022 178.312 1.00105.25 C
ATOM 2762 C THR A 424 216.858 184.245 179.612 1.00105.25 C
ATOM 2763 O THR A 424 217.831 184.010 180.335 1.00105.25 O
ATOM 2764 CB THR A 424 216.551 186.465 178.497 1.00105.25 C
ATOM 2765 OG1 THR A 424 215.153 186.467 178.811 1.00105.25 O
ATOM 2766 CG2 THR A 424 216.781 187.269 177.229 1.00105.25 C
ATOM 2767 N GLY A 425 215.628 183.841 179.922 1.00101.74 N
ATOM 2768 CA GLY A 425 215.358 183.114 181.146 1.00101.74 C
ATOM 2769 C GLY A 425 215.549 181.616 181.025 1.00101.74 C
ATOM 2770 O GLY A 425 214.787 180.839 181.606 1.00101.74 O
ATOM 2771 N GLY A 426 216.565 181.196 180.270 1.00 96.87 N
ATOM 2772 CA GLY A 426 216.891 179.795 180.124 1.00 96.87 C

ATOM 2773 C GLY A 426 215.988 179.002 179.206 1.00 96.87 C
ATOM 2774 O GLY A 426 216.344 177.876 178.839 1.00 96.87 O
ATOM 2775 N LEU A 427 214.833 179.541 178.822 1.00 97.73 N
ATOM 2776 CA LEU A 427 213.915 178.809 177.961 1.00 97.73 C
ATOM 2777 C LEU A 427 214.538 178.584 176.589 1.00 97.73 C
ATOM 2778 O LEU A 427 215.053 179.517 175.967 1.00 97.73 O
ATOM 2779 CB LEU A 427 212.595 179.569 177.824 1.00 97.73 C
ATOM 2780 CG LEU A 427 211.623 179.517 179.005 1.00 97.73 C
ATOM 2781 CD1 LEU A 427 212.125 180.367 180.162 1.00 97.73 C
ATOM 2782 CD2 LEU A 427 210.236 179.963 178.575 1.00 97.73 C
ATOM 2783 N VAL A 428 214.489 177.341 176.121 1.00 98.45 N
ATOM 2784 CA VAL A 428 215.064 176.951 174.840 1.00 98.45 C
ATOM 2785 C VAL A 428 213.923 176.718 173.860 1.00 98.45 C
ATOM 2786 O VAL A 428 213.024 175.912 174.126 1.00 98.45 O
ATOM 2787 CB VAL A 428 215.942 175.698 174.979 1.00 98.45 C
ATOM 2788 CG1 VAL A 428 216.447 175.249 173.620 1.00 98.45 C
ATOM 2789 CG2 VAL A 428 217.103 175.967 175.920 1.00 98.45 C
ATOM 2790 N VAL A 429 213.954 177.422 172.729 1.00102.31 N
ATOM 2791 CA VAL A 429 212.913 177.310 171.718 1.00102.31 C
ATOM 2792 C VAL A 429 213.542 176.922 170.387 1.00102.31 C
ATOM 2793 O VAL A 429 214.750 177.050 170.174 1.00102.31 O
ATOM 2794 CB VAL A 429 212.097 178.609 171.566 1.00102.31 C
ATOM 2795 CG1 VAL A 429 211.401 178.952 172.868 1.00102.31 C
ATOM 2796 CG2 VAL A 429 212.992 179.746 171.115 1.00102.31 C
ATOM 2797 N PHE A 430 212.692 176.447 169.483 1.00110.59 N
ATOM 2798 CA PHE A 430 213.113 176.003 168.164 1.00110.59 C
ATOM 2799 C PHE A 430 211.886 175.955 167.268 1.00110.59 C
ATOM 2800 O PHE A 430 210.772 175.717 167.741 1.00110.59 O
ATOM 2801 CB PHE A 430 213.803 174.637 168.232 1.00110.59 C
ATOM 2802 CG PHE A 430 212.936 173.548 168.789 1.00110.59 C
ATOM 2803 CD1 PHE A 430 212.883 173.320 170.153 1.00110.59 C
ATOM 2804 CD2 PHE A 430 212.179 172.748 167.952 1.00110.59 C
ATOM 2805 CE1 PHE A 430 212.087 172.320 170.671 1.00110.59 C
ATOM 2806 CE2 PHE A 430 211.381 171.749 168.465 1.00110.59 C

ATOM 2807 CZ PHE A 430 211.336 171.532 169.825 1.00110.59 C
ATOM 2808 N TRP A 431 212.094 176.176 165.975 1.00105.56 N
ATOM 2809 CA TRP A 431 210.964 176.365 165.073 1.00105.56 C
ATOM 2810 C TRP A 431 211.480 176.465 163.642 1.00105.56 C
ATOM 2811 O TRP A 431 212.686 176.391 163.384 1.00105.56 O
ATOM 2812 CB TRP A 431 210.173 177.604 165.479 1.00105.56 C
ATOM 2813 CG TRP A 431 210.976 178.844 165.392 1.00105.56 C
ATOM 2814 CD1 TRP A 431 211.838 179.326 166.329 1.00105.56 C
ATOM 2815 CD2 TRP A 431 210.983 179.785 164.321 1.00105.56 C
ATOM 2816 NE1 TRP A 431 212.399 180.503 165.900 1.00105.56 N
ATOM 2817 CE2 TRP A 431 211.885 180.808 164.669 1.00105.56 C
ATOM 2818 CE3 TRP A 431 210.318 179.862 163.097 1.00105.56 C
ATOM 2819 CZ2 TRP A 431 212.143 181.889 163.838 1.00105.56 C
ATOM 2820 CZ3 TRP A 431 210.571 180.939 162.272 1.00105.56 C
ATOM 2821 CH2 TRP A 431 211.476 181.940 162.648 1.00105.56 C
ATOM 2822 N GLN A 432 210.543 176.632 162.708 1.00112.42 N
ATOM 2823 CA GLN A 432 210.849 176.731 161.288 1.00112.42 C
ATOM 2824 C GLN A 432 209.849 177.667 160.623 1.00112.42 C
ATOM 2825 O GLN A 432 208.731 177.861 161.106 1.00112.42 O
ATOM 2826 CB GLN A 432 210.826 175.353 160.613 1.00112.42 C
ATOM 2827 CG GLN A 432 209.460 174.687 160.613 1.00112.42 C
ATOM 2828 CD GLN A 432 209.491 173.295 160.017 1.00112.42 C
ATOM 2829 OE1 GLN A 432 210.533 172.823 159.563 1.00112.42 O
ATOM 2830 NE2 GLN A 432 208.342 172.631 160.010 1.00112.42 N
ATOM 2831 N GLY A 433 210.268 178.249 159.496 1.00115.93 N
ATOM 2832 CA GLY A 433 209.434 179.208 158.804 1.00115.93 C
ATOM 2833 C GLY A 433 208.350 178.557 157.963 1.00115.93 C
ATOM 2834 O GLY A 433 208.464 177.416 157.520 1.00115.93 O
ATOM 2835 N ILE A 434 207.276 179.311 157.739 1.00115.36 N
ATOM 2836 CA ILE A 434 206.110 178.819 157.016 1.00115.36 C
ATOM 2837 C ILE A 434 205.596 179.911 156.087 1.00115.36 C
ATOM 2838 O ILE A 434 205.665 181.101 156.412 1.00115.36 O
ATOM 2839 CB ILE A 434 205.000 178.359 157.983 1.00115.36 C
ATOM 2840 CG1 ILE A 434 203.893 177.633 157.219 1.00115.36 C

ATOM 2841 CG2 ILE A 434 204.440 179.546 158.748 1.00115.36 C
ATOM 2842 CD1 ILE A 434 202.934 176.876 158.109 1.00115.36 C
ATOM 2843 N LYS A 435 205.084 179.502 154.929 1.00115.41 N
ATOM 2844 CA LYS A 435 204.481 180.411 153.961 1.00115.41 C
ATOM 2845 C LYS A 435 203.915 179.576 152.821 1.00115.41 C
ATOM 2846 O LYS A 435 204.117 178.362 152.758 1.00115.41 O
ATOM 2847 CB LYS A 435 205.482 181.439 153.430 1.00115.41 C
ATOM 2848 CG LYS A 435 206.631 180.846 152.637 1.00115.41 C
ATOM 2849 CD LYS A 435 207.465 181.939 152.003 1.00115.41 C
ATOM 2850 CE LYS A 435 208.209 182.724 153.054 1.00115.41 C
ATOM 2851 NZ LYS A 435 209.184 181.859 153.757 1.00115.41 N
ATOM 2852 N GLN A 436 203.211 180.246 151.912 1.00111.95 N
ATOM 2853 CA GLN A 436 202.602 179.565 150.772 1.00111.95 C
ATOM 2854 C GLN A 436 202.917 180.264 149.456 1.00111.95 C
ATOM 2855 O GLN A 436 202.217 180.067 148.462 1.00111.95 O
ATOM 2856 CB GLN A 436 201.088 179.473 150.948 1.00111.95 C
ATOM 2857 CG GLN A 436 200.360 180.780 150.726 1.00111.95 C
ATOM 2858 CD GLN A 436 200.404 181.670 151.941 1.00111.95 C
ATOM 2859 OE1 GLN A 436 201.259 181.506 152.810 1.00111.95 O
ATOM 2860 NE2 GLN A 436 199.460 182.596 152.031 1.00111.95 N
ATOM 2861 N GLN A 483 200.073 192.743 138.721 1.00100.67 N
ATOM 2862 CA GLN A 483 200.489 191.569 139.480 1.00100.67 C
ATOM 2863 C GLN A 483 199.345 190.983 140.299 1.00100.67 C
ATOM 2864 O GLN A 483 199.110 189.774 140.265 1.00100.67 O
ATOM 2865 CB GLN A 483 201.656 191.916 140.404 1.00100.67 C
ATOM 2866 CG GLN A 483 202.153 190.742 141.231 1.00100.67 C
ATOM 2867 CD GLN A 483 202.680 189.610 140.376 1.00100.67 C
ATOM 2868 OE1 GLN A 483 202.019 188.587 140.203 1.00100.67 O
ATOM 2869 NE2 GLN A 483 203.880 189.785 139.836 1.00100.67 N
ATOM 2870 N LEU A 484 198.668 191.852 141.056 1.00100.36 N
ATOM 2871 CA LEU A 484 197.542 191.498 141.919 1.00100.36 C
ATOM 2872 C LEU A 484 197.994 190.779 143.187 1.00100.36 C
ATOM 2873 O LEU A 484 197.178 190.503 144.073 1.00100.36 O
ATOM 2874 CB LEU A 484 196.518 190.648 141.156 1.00100.36 C

ATOM 2875 CG LEU A 484 195.247 190.220 141.894 1.00100.36 C
ATOM 2876 CD1 LEU A 484 194.450 191.435 142.335 1.00100.36 C
ATOM 2877 CD2 LEU A 484 194.400 189.308 141.022 1.00100.36 C
ATOM 2878 N GLN A 485 199.288 190.485 143.301 1.00 98.86 N
ATOM 2879 CA GLN A 485 199.811 189.865 144.511 1.00 98.86 C
ATOM 2880 C GLN A 485 200.340 190.890 145.500 1.00 98.86 C
ATOM 2881 O GLN A 485 200.220 190.687 146.714 1.00 98.86 O
ATOM 2882 CB GLN A 485 200.917 188.865 144.160 1.00 98.86 C
ATOM 2883 CG GLN A 485 201.351 187.969 145.316 1.00 98.86 C
ATOM 2884 CD GLN A 485 202.456 188.579 146.157 1.00 98.86 C
ATOM 2885 OE1 GLN A 485 203.271 189.355 145.660 1.00 98.86 O
ATOM 2886 NE2 GLN A 485 202.484 188.237 147.439 1.00 98.86 N
ATOM 2887 N PHE A 486 200.926 191.984 145.007 1.00 99.61 N
ATOM 2888 CA PHE A 486 201.471 193.001 145.899 1.00 99.61 C
ATOM 2889 C PHE A 486 200.384 193.647 146.747 1.00 99.61 C
ATOM 2890 O PHE A 486 200.662 194.129 147.850 1.00 99.61 O
ATOM 2891 CB PHE A 486 202.215 194.059 145.089 1.00 99.61 C
ATOM 2892 CG PHE A 486 202.849 195.125 145.928 1.00 99.61 C
ATOM 2893 CD1 PHE A 486 204.000 194.861 146.648 1.00 99.61 C
ATOM 2894 CD2 PHE A 486 202.297 196.391 145.997 1.00 99.61 C
ATOM 2895 CE1 PHE A 486 204.588 195.840 147.422 1.00 99.61 C
ATOM 2896 CE2 PHE A 486 202.880 197.374 146.768 1.00 99.61 C
ATOM 2897 CZ PHE A 486 204.028 197.098 147.482 1.00 99.61 C
ATOM 2898 N THR A 487 199.147 193.672 146.249 1.00 97.26 N
ATOM 2899 CA THR A 487 198.039 194.173 147.054 1.00 97.26 C
ATOM 2900 C THR A 487 197.793 193.282 148.264 1.00 97.26 C
ATOM 2901 O THR A 487 197.490 193.776 149.356 1.00 97.26 O
ATOM 2902 CB THR A 487 196.776 194.268 146.203 1.00 97.26 C
ATOM 2903 OG1 THR A 487 196.410 192.960 145.751 1.00 97.26 O
ATOM 2904 CG2 THR A 487 197.017 195.159 144.998 1.00 97.26 C
ATOM 2905 N TYR A 488 197.917 191.966 148.086 1.00 94.52 N
ATOM 2906 CA TYR A 488 197.608 191.038 149.168 1.00 94.52 C
ATOM 2907 C TYR A 488 198.650 191.100 150.279 1.00 94.52 C
ATOM 2908 O TYR A 488 198.309 190.975 151.460 1.00 94.52 O

ATOM 2909 CB TYR A 488 197.498 189.618 148.619 1.00 94.52 C
ATOM 2910 CG TYR A 488 197.135 188.585 149.658 1.00 94.52 C
ATOM 2911 CD1 TYR A 488 195.837 188.477 150.131 1.00 94.52 C
ATOM 2912 CD2 TYR A 488 198.091 187.717 150.164 1.00 94.52 C
ATOM 2913 CE1 TYR A 488 195.499 187.533 151.079 1.00 94.52 C
ATOM 2914 CE2 TYR A 488 197.763 186.770 151.113 1.00 94.52 C
ATOM 2915 CZ TYR A 488 196.466 186.682 151.567 1.00 94.52 C
ATOM 2916 OH TYR A 488 196.135 185.740 152.513 1.00 94.52 O
ATOM 2917 N ASP A 489 199.923 191.279 149.921 1.00 95.71 N
ATOM 2918 CA ASP A 489 200.979 191.286 150.929 1.00 95.71 C
ATOM 2919 C ASP A 489 200.803 192.446 151.901 1.00 95.71 C
ATOM 2920 O ASP A 489 200.684 192.240 153.115 1.00 95.71 O
ATOM 2921 CB ASP A 489 202.351 191.354 150.258 1.00 95.71 C
ATOM 2922 CG ASP A 489 203.491 191.080 151.225 1.00 95.71 C
ATOM 2923 OD1 ASP A 489 203.220 190.816 152.416 1.00 95.71 O
ATOM 2924 OD2 ASP A 489 204.662 191.133 150.796 1.00 95.71 O
ATOM 2925 N THR A 490 200.794 193.677 151.384 1.00 94.70 N
ATOM 2926 CA THR A 490 200.673 194.845 152.249 1.00 94.70 C
ATOM 2927 C THR A 490 199.362 194.828 153.021 1.00 94.70 C
ATOM 2928 O THR A 490 199.307 195.258 154.179 1.00 94.70 O
ATOM 2929 CB THR A 490 200.787 196.126 151.426 1.00 94.70 C
ATOM 2930 OG1 THR A 490 199.709 196.186 150.484 1.00 94.70 O
ATOM 2931 CG2 THR A 490 202.104 196.151 150.676 1.00 94.70 C
ATOM 2932 N LEU A 491 198.293 194.331 152.398 1.00 95.94 N
ATOM 2933 CA LEU A 491 197.018 194.245 153.094 1.00 95.94 C
ATOM 2934 C LEU A 491 196.963 193.057 154.045 1.00 95.94 C
ATOM 2935 O LEU A 491 196.011 192.947 154.825 1.00 95.94 O
ATOM 2936 CB LEU A 491 195.878 194.190 152.078 1.00 95.94 C
ATOM 2937 CG LEU A 491 194.457 194.197 152.630 1.00 95.94 C
ATOM 2938 CD1 LEU A 491 194.255 195.401 153.523 1.00 95.94 C
ATOM 2939 CD2 LEU A 491 193.488 194.249 151.473 1.00 95.94 C
ATOM 2940 N ARG A 492 197.956 192.171 153.999 1.00 94.49 N
ATOM 2941 CA ARG A 492 198.136 191.166 155.038 1.00 94.49 C
ATOM 2942 C ARG A 492 199.286 191.489 155.976 1.00 94.49 C

ATOM 2943 O ARG A 492 199.218 191.151 157.161 1.00 94.49 O
ATOM 2944 CB ARG A 492 198.379 189.785 154.427 1.00 94.49 C
ATOM 2945 CG ARG A 492 198.473 188.681 155.464 1.00 94.49 C
ATOM 2946 CD ARG A 492 198.760 187.346 154.817 1.00 94.49 C
ATOM 2947 NE ARG A 492 200.096 187.313 154.230 1.00 94.49 N
ATOM 2948 CZ ARG A 492 200.543 186.332 153.455 1.00 94.49 C
ATOM 2949 NH1 ARG A 492 201.772 186.379 152.962 1.00 94.49 N
ATOM 2950 NH2 ARG A 492 199.757 185.304 153.175 1.00 94.49 N
ATOM 2951 N GLY A 493 200.341 192.131 155.473 1.00 93.42 N
ATOM 2952 CA GLY A 493 201.403 192.601 156.343 1.00 93.42 C
ATOM 2953 C GLY A 493 200.970 193.706 157.279 1.00 93.42 C
ATOM 2954 O GLY A 493 201.634 193.943 158.293 1.00 93.42 O
ATOM 2955 N TYR A 494 199.874 194.392 156.957 1.00 91.60 N
ATOM 2956 CA TYR A 494 199.334 195.407 157.850 1.00 91.60 C
ATOM 2957 C TYR A 494 198.548 194.793 159.000 1.00 91.60 C
ATOM 2958 O TYR A 494 198.565 195.331 160.112 1.00 91.60 O
ATOM 2959 CB TYR A 494 198.448 196.373 157.067 1.00 91.60 C
ATOM 2960 CG TYR A 494 197.857 197.474 157.909 1.00 91.60 C
ATOM 2961 CD1 TYR A 494 198.630 198.550 158.320 1.00 91.60 C
ATOM 2962 CD2 TYR A 494 196.525 197.439 158.294 1.00 91.60 C
ATOM 2963 CE1 TYR A 494 198.093 199.561 159.091 1.00 91.60 C
ATOM 2964 CE2 TYR A 494 195.978 198.444 159.065 1.00 91.60 C
ATOM 2965 CZ TYR A 494 196.766 199.502 159.461 1.00 91.60 C
ATOM 2966 OH TYR A 494 196.225 200.507 160.229 1.00 91.60 O
ATOM 2967 N ILE A 495 197.856 193.679 158.755 1.00 87.12 N
ATOM 2968 CA ILE A 495 197.118 193.013 159.824 1.00 87.12 C
ATOM 2969 C ILE A 495 198.079 192.490 160.883 1.00 87.12 C
ATOM 2970 O ILE A 495 197.872 192.689 162.086 1.00 87.12 O
ATOM 2971 CB ILE A 495 196.243 191.886 159.252 1.00 87.12 C
ATOM 2972 CG1 ILE A 495 195.189 192.459 158.307 1.00 87.12 C
ATOM 2973 CG2 ILE A 495 195.583 191.109 160.374 1.00 87.12 C
ATOM 2974 CD1 ILE A 495 194.456 191.408 157.510 1.00 87.12 C
ATOM 2975 N ASN A 496 199.141 191.805 160.452 1.00 88.27 N
ATOM 2976 CA ASN A 496 200.192 191.413 161.384 1.00 88.27 C

ATOM 2977 C ASN A 496 200.835 192.631 162.030 1.00 88.27 C
ATOM 2978 O ASN A 496 201.286 192.562 163.179 1.00 88.27 O
ATOM 2979 CB ASN A 496 201.248 190.576 160.664 1.00 88.27 C
ATOM 2980 CG ASN A 496 200.719 189.231 160.220 1.00 88.27 C
ATOM 2981 OD1 ASN A 496 199.974 188.573 160.946 1.00 88.27 O
ATOM 2982 ND2 ASN A 496 201.104 188.811 159.022 1.00 88.27 N
ATOM 2983 N ARG A 497 200.888 193.750 161.306 1.00 94.34 N
ATOM 2984 CA ARG A 497 201.397 194.989 161.880 1.00 94.34 C
ATOM 2985 C ARG A 497 200.563 195.443 163.070 1.00 94.34 C
ATOM 2986 O ARG A 497 201.087 196.093 163.981 1.00 94.34 O
ATOM 2987 CB ARG A 497 201.434 196.078 160.809 1.00 94.34 C
ATOM 2988 CG ARG A 497 201.988 197.400 161.294 1.00 94.34 C
ATOM 2989 CD ARG A 497 203.499 197.358 161.379 1.00 94.34 C
ATOM 2990 NE ARG A 497 203.947 196.682 162.591 1.00 94.34 N
ATOM 2991 CZ ARG A 497 203.937 197.235 163.799 1.00 94.34 C
ATOM 2992 NH1 ARG A 497 204.364 196.549 164.849 1.00 94.34 N
ATOM 2993 NH2 ARG A 497 203.493 198.474 163.957 1.00 94.34 N
ATOM 2994 N ALA A 498 199.268 195.119 163.079 1.00 88.19 N
ATOM 2995 CA ALA A 498 198.400 195.555 164.167 1.00 88.19 C
ATOM 2996 C ALA A 498 198.398 194.562 165.322 1.00 88.19 C
ATOM 2997 O ALA A 498 198.327 194.966 166.488 1.00 88.19 O
ATOM 2998 CB ALA A 498 196.979 195.772 163.651 1.00 88.19 C
ATOM 2999 N LEU A 499 198.479 193.266 165.025 1.00 83.65 N
ATOM 3000 CA LEU A 499 198.451 192.247 166.067 1.00 83.65 C
ATOM 3001 C LEU A 499 199.716 192.218 166.912 1.00 83.65 C
ATOM 3002 O LEU A 499 199.753 191.497 167.914 1.00 83.65 O
ATOM 3003 CB LEU A 499 198.217 190.868 165.450 1.00 83.65 C
ATOM 3004 CG LEU A 499 196.850 190.656 164.803 1.00 83.65 C
ATOM 3005 CD1 LEU A 499 196.787 189.297 164.128 1.00 83.65 C
ATOM 3006 CD2 LEU A 499 195.745 190.799 165.836 1.00 83.65 C
ATOM 3007 N ALA A 500 200.749 192.972 166.539 1.00 89.05 N
ATOM 3008 CA ALA A 500 201.955 193.044 167.351 1.00 89.05 C
ATOM 3009 C ALA A 500 201.860 194.123 168.419 1.00 89.05 C
ATOM 3010 O ALA A 500 202.317 193.917 169.547 1.00 89.05 O

ATOM 3011 CB ALA A 500 203.177 193.293 166.464 1.00 89.05 C
ATOM 3012 N GLN A 501 201.261 195.268 168.094 1.00 91.39 N
ATOM 3013 CA GLN A 501 201.098 196.335 169.072 1.00 91.39 C
ATOM 3014 C GLN A 501 199.954 196.077 170.042 1.00 91.39 C
ATOM 3015 O GLN A 501 199.708 196.912 170.919 1.00 91.39 O
ATOM 3016 CB GLN A 501 200.888 197.675 168.365 1.00 91.39 C
ATOM 3017 CG GLN A 501 199.608 197.768 167.561 1.00 91.39 C
ATOM 3018 CD GLN A 501 199.483 199.091 166.834 1.00 91.39 C
ATOM 3019 OE1 GLN A 501 200.333 199.969 166.974 1.00 91.39 O
ATOM 3020 NE2 GLN A 501 198.422 199.240 166.052 1.00 91.39 N
ATOM 3021 N ILE A 502 199.251 194.955 169.906 1.00 87.33 N
ATOM 3022 CA ILE A 502 198.281 194.555 170.917 1.00 87.33 C
ATOM 3023 C ILE A 502 198.975 193.817 172.053 1.00 87.33 C
ATOM 3024 O ILE A 502 198.841 194.182 173.226 1.00 87.33 O
ATOM 3025 CB ILE A 502 197.168 193.701 170.284 1.00 87.33 C
ATOM 3026 CG1 ILE A 502 196.448 194.490 169.192 1.00 87.33 C
ATOM 3027 CG2 ILE A 502 196.181 193.245 171.343 1.00 87.33 C
ATOM 3028 CD1 ILE A 502 195.763 195.735 169.697 1.00 87.33 C
ATOM 3029 N ALA A 503 199.732 192.769 171.721 1.00 89.44 N
ATOM 3030 CA ALA A 503 200.450 192.023 172.748 1.00 89.44 C
ATOM 3031 C ALA A 503 201.552 192.857 173.388 1.00 89.44 C
ATOM 3032 O ALA A 503 201.963 192.576 174.518 1.00 89.44 O
ATOM 3033 CB ALA A 503 201.028 190.738 172.157 1.00 89.44 C
ATOM 3034 N GLU A 504 202.054 193.874 172.683 1.00 97.02 N
ATOM 3035 CA GLU A 504 203.018 194.780 173.300 1.00 97.02 C
ATOM 3036 C GLU A 504 202.383 195.540 174.455 1.00 97.02 C
ATOM 3037 O GLU A 504 203.032 195.791 175.477 1.00 97.02 O
ATOM 3038 CB GLU A 504 203.575 195.749 172.260 1.00 97.02 C
ATOM 3039 CG GLU A 504 204.453 195.086 171.219 1.00 97.02 C
ATOM 3040 CD GLU A 504 204.953 196.058 170.172 1.00 97.02 C
ATOM 3041 OE1 GLU A 504 204.534 197.234 170.201 1.00 97.02 O
ATOM 3042 OE2 GLU A 504 205.757 195.642 169.313 1.00 97.02 O
ATOM 3043 N ALA A 505 201.113 195.910 174.311 1.00 94.81 N
ATOM 3044 CA ALA A 505 200.335 196.470 175.405 1.00 94.81 C

ATOM 3045 C ALA A 505 199.704 195.394 176.273 1.00 94.81 C
ATOM 3046 O ALA A 505 198.743 195.676 176.996 1.00 94.81 O
ATOM 3047 CB ALA A 505 199.250 197.402 174.859 1.00 94.81 C
ATOM 3048 N TRP A 506 200.224 194.171 176.207 1.00101.20 N
ATOM 3049 CA TRP A 506 199.716 193.055 176.990 1.00101.20 C
ATOM 3050 C TRP A 506 200.597 192.712 178.178 1.00101.20 C
ATOM 3051 O TRP A 506 200.080 192.298 179.220 1.00101.20 O
ATOM 3052 CB TRP A 506 199.570 191.815 176.106 1.00101.20 C
ATOM 3053 CG TRP A 506 198.961 190.681 176.825 1.00101.20 C
ATOM 3054 CD1 TRP A 506 199.591 189.570 177.296 1.00101.20 C
ATOM 3055 CD2 TRP A 506 197.587 190.551 177.186 1.00101.20 C
ATOM 3056 NE1 TRP A 506 198.688 188.745 177.920 1.00101.20 N
ATOM 3057 CE2 TRP A 506 197.449 189.328 177.866 1.00101.20 C
ATOM 3058 CE3 TRP A 506 196.457 191.350 176.995 1.00101.20 C
ATOM 3059 CZ2 TRP A 506 196.226 188.884 178.356 1.00101.20 C
ATOM 3060 CZ3 TRP A 506 195.246 190.909 177.481 1.00101.20 C
ATOM 3061 CH2 TRP A 506 195.139 189.689 178.152 1.00101.20 C
ATOM 3062 N CYS A 507 201.915 192.870 178.042 1.00100.93 N
ATOM 3063 CA CYS A 507 202.819 192.609 179.154 1.00100.93 C
ATOM 3064 C CYS A 507 202.557 193.532 180.336 1.00100.93 C
ATOM 3065 O CYS A 507 202.871 193.168 181.474 1.00100.93 O
ATOM 3066 CB CYS A 507 204.268 192.749 178.687 1.00100.93 C
ATOM 3067 SG CYS A 507 205.516 192.346 179.927 1.00100.93 S
ATOM 3068 N VAL A 508 201.991 194.715 180.095 1.00 92.73 N
ATOM 3069 CA VAL A 508 201.697 195.635 181.188 1.00 92.73 C
ATOM 3070 C VAL A 508 200.522 195.134 182.016 1.00 92.73 C
ATOM 3071 O VAL A 508 200.473 195.341 183.232 1.00 92.73 O
ATOM 3072 CB VAL A 508 201.437 197.046 180.636 1.00 92.73 C
ATOM 3073 CG1 VAL A 508 201.016 197.977 181.758 1.00 92.73 C
ATOM 3074 CG2 VAL A 508 202.677 197.573 179.933 1.00 92.73 C
ATOM 3075 N ASP A 509 199.557 194.481 181.376 1.00 94.61 N
ATOM 3076 CA ASP A 509 198.420 193.911 182.084 1.00 94.61 C
ATOM 3077 C ASP A 509 198.725 192.546 182.677 1.00 94.61 C
ATOM 3078 O ASP A 509 197.864 191.971 183.350 1.00 94.61 O

ATOM 3079 CB ASP A 509 197.223 193.820 181.143 1.00 94.61 C
ATOM 3080 CG ASP A 509 196.686 195.179 180.767 1.00 94.61 C
ATOM 3081 OD1 ASP A 509 196.726 196.093 181.618 1.00 94.61 O
ATOM 3082 OD2 ASP A 509 196.261 195.345 179.609 1.00 94.61 O
ATOM 3083 N GLN A 510 199.923 192.019 182.438 1.00 87.33 N
ATOM 3084 CA GLN A 510 200.388 190.809 183.095 1.00 87.33 C
ATOM 3085 C GLN A 510 201.181 191.109 184.357 1.00 87.33 C
ATOM 3086 O GLN A 510 201.285 190.239 185.228 1.00 87.33 O
ATOM 3087 CB GLN A 510 201.236 189.981 182.115 1.00 87.33 C
ATOM 3088 CG GLN A 510 201.593 188.563 182.553 1.00 87.33 C
ATOM 3089 CD GLN A 510 202.817 188.503 183.445 1.00 87.33 C
ATOM 3090 OE1 GLN A 510 202.777 187.931 184.533 1.00 87.33 O
ATOM 3091 NE2 GLN A 510 203.910 189.104 182.992 1.00 87.33 N
ATOM 3092 N ARG A 511 201.718 192.320 184.489 1.00 78.54 N
ATOM 3093 CA ARG A 511 202.413 192.709 185.706 1.00 78.54 C
ATOM 3094 C ARG A 511 201.480 193.286 186.758 1.00 78.54 C
ATOM 3095 O ARG A 511 201.859 193.353 187.932 1.00 78.54 O
ATOM 3096 CB ARG A 511 203.511 193.724 185.384 1.00 78.54 C
ATOM 3097 CG ARG A 511 202.991 195.029 184.830 1.00 78.54 C
ATOM 3098 CD ARG A 511 204.130 195.961 184.472 1.00 78.54 C
ATOM 3099 NE ARG A 511 204.859 196.415 185.650 1.00 78.54 N
ATOM 3100 CZ ARG A 511 206.049 197.002 185.605 1.00 78.54 C
ATOM 3101 NH1 ARG A 511 206.643 197.206 184.438 1.00 78.54 N
ATOM 3102 NH2 ARG A 511 206.645 197.387 186.725 1.00 78.54 N
ATOM 3103 N ARG A 512 200.276 193.709 186.370 1.00 67.15 N
ATOM 3104 CA ARG A 512 199.279 194.092 187.363 1.00 67.15 C
ATOM 3105 C ARG A 512 198.844 192.885 188.181 1.00 67.15 C
ATOM 3106 O ARG A 512 198.847 192.924 189.417 1.00 67.15 O
ATOM 3107 CB ARG A 512 198.072 194.735 186.681 1.00 67.15 C
ATOM 3108 CG ARG A 512 198.374 196.008 185.915 1.00 67.15 C
ATOM 3109 CD ARG A 512 198.734 197.151 186.843 1.00 67.15 C
ATOM 3110 NE ARG A 512 198.874 198.407 186.113 1.00 67.15 N
ATOM 3111 CZ ARG A 512 199.260 199.554 186.663 1.00 67.15 C
ATOM 3112 NH1 ARG A 512 199.553 199.606 187.954 1.00 67.15 N

ATOM 3113 NH2 ARG A 512 199.355 200.648 185.921 1.00 67.15 N
ATOM 3114 N THR A 513 198.462 191.800 187.503 1.00 61.00 N
ATOM 3115 CA THR A 513 198.023 190.598 188.203 1.00 61.00 C
ATOM 3116 C THR A 513 199.124 190.020 189.083 1.00 61.00 C
ATOM 3117 O THR A 513 198.833 189.432 190.129 1.00 61.00 O
ATOM 3118 CB THR A 513 197.540 189.554 187.198 1.00 61.00 C
ATOM 3119 OG1 THR A 513 196.425 190.077 186.466 1.00 61.00 O
ATOM 3120 CG2 THR A 513 197.116 188.287 187.913 1.00 61.00 C
ATOM 3121 N LEU A 514 200.388 190.181 188.691 1.00 64.68 N
ATOM 3122 CA LEU A 514 201.503 189.760 189.530 1.00 64.68 C
ATOM 3123 C LEU A 514 201.858 190.784 190.596 1.00 64.68 C
ATOM 3124 O LEU A 514 202.920 190.680 191.218 1.00 64.68 O
ATOM 3125 CB LEU A 514 202.732 189.448 188.673 1.00 64.68 C
ATOM 3126 CG LEU A 514 202.840 188.017 188.144 1.00 64.68 C
ATOM 3127 CD1 LEU A 514 202.999 187.040 189.296 1.00 64.68 C
ATOM 3128 CD2 LEU A 514 201.632 187.652 187.302 1.00 64.68 C
ATOM 3129 N GLU A 515 200.997 191.773 190.811 1.00 58.71 N
ATOM 3130 CA GLU A 515 201.099 192.663 191.956 1.00 58.71 C
ATOM 3131 C GLU A 515 199.815 192.737 192.759 1.00 58.71 C
ATOM 3132 O GLU A 515 199.881 192.994 193.967 1.00 58.71 O
ATOM 3133 CB GLU A 515 201.498 194.078 191.506 1.00 58.71 C
ATOM 3134 CG GLU A 515 201.921 195.014 192.631 1.00 58.71 C
ATOM 3135 CD GLU A 515 200.757 195.749 193.262 1.00 58.71 C
ATOM 3136 OE1 GLU A 515 199.754 195.987 192.558 1.00 58.71 O
ATOM 3137 OE2 GLU A 515 200.839 196.077 194.463 1.00 58.71 O
ATOM 3138 N VAL A 516 198.655 192.517 192.141 1.00 53.53 N
ATOM 3139 CA VAL A 516 197.423 192.379 192.902 1.00 53.53 C
ATOM 3140 C VAL A 516 197.400 191.078 193.687 1.00 53.53 C
ATOM 3141 O VAL A 516 196.785 191.020 194.757 1.00 53.53 O
ATOM 3142 CB VAL A 516 196.203 192.464 191.974 1.00 53.53 C
ATOM 3143 CG1 VAL A 516 194.929 192.214 192.753 1.00 53.53 C
ATOM 3144 CG2 VAL A 516 196.156 193.818 191.291 1.00 53.53 C
ATOM 3145 N PHE A 517 198.065 190.031 193.196 1.00 50.80 N
ATOM 3146 CA PHE A 517 198.200 188.812 193.978 1.00 50.80 C

ATOM 3147 C PHE A 517 199.224 188.954 195.089 1.00 50.80 C
ATOM 3148 O PHE A 517 199.180 188.189 196.056 1.00 50.80 O
ATOM 3149 CB PHE A 517 198.593 187.634 193.087 1.00 50.80 C
ATOM 3150 CG PHE A 517 197.500 187.170 192.177 1.00 50.80 C
ATOM 3151 CD1 PHE A 517 196.193 187.570 192.381 1.00 50.80 C
ATOM 3152 CD2 PHE A 517 197.780 186.326 191.119 1.00 50.80 C
ATOM 3153 CE1 PHE A 517 195.186 187.141 191.542 1.00 50.80 C
ATOM 3154 CE2 PHE A 517 196.778 185.894 190.279 1.00 50.80 C
ATOM 3155 CZ PHE A 517 195.479 186.302 190.490 1.00 50.80 C
ATOM 3156 N LYS A 518 200.141 189.912 194.980 1.00 55.54 N
ATOM 3157 CA LYS A 518 201.124 190.091 196.036 1.00 55.54 C
ATOM 3158 C LYS A 518 200.498 190.618 197.318 1.00 55.54 C
ATOM 3159 O LYS A 518 201.107 190.498 198.385 1.00 55.54 O
ATOM 3160 CB LYS A 518 202.227 191.031 195.565 1.00 55.54 C
ATOM 3161 CG LYS A 518 203.406 191.108 196.506 1.00 55.54 C
ATOM 3162 CD LYS A 518 204.441 192.067 195.967 1.00 55.54 C
ATOM 3163 CE LYS A 518 205.483 191.350 195.132 1.00 55.54 C
ATOM 3164 NZ LYS A 518 204.970 190.996 193.778 1.00 55.54 N
ATOM 3165 N GLU A 519 199.302 191.197 197.238 1.00 50.79 N
ATOM 3166 CA GLU A 519 198.557 191.645 198.407 1.00 50.79 C
ATOM 3167 C GLU A 519 197.442 190.685 198.795 1.00 50.79 C
ATOM 3168 O GLU A 519 197.301 190.355 199.975 1.00 50.79 O
ATOM 3169 CB GLU A 519 197.971 193.035 198.158 1.00 50.79 C
ATOM 3170 CG GLU A 519 199.021 194.111 197.965 1.00 50.79 C
ATOM 3171 CD GLU A 519 199.841 194.347 199.212 1.00 50.79 C
ATOM 3172 OE1 GLU A 519 199.300 194.153 200.320 1.00 50.79 O
ATOM 3173 OE2 GLU A 519 201.022 194.734 199.090 1.00 50.79 O
ATOM 3174 N LEU A 520 196.645 190.226 197.826 1.00 44.63 N
ATOM 3175 CA LEU A 520 195.621 189.226 198.113 1.00 44.63 C
ATOM 3176 C LEU A 520 196.208 187.929 198.651 1.00 44.63 C
ATOM 3177 O LEU A 520 195.506 187.190 199.349 1.00 44.63 O
ATOM 3178 CB LEU A 520 194.789 188.943 196.864 1.00 44.63 C
ATOM 3179 CG LEU A 520 193.640 189.917 196.612 1.00 44.63 C
ATOM 3180 CD1 LEU A 520 194.160 191.279 196.209 1.00 44.63 C

ATOM 3181 CD2 LEU A 520 192.712 189.362 195.549 1.00 44.63 C
ATOM 3182 N SER A 521 197.470 187.631 198.352 1.00 44.05 N
ATOM 3183 CA SER A 521 198.143 186.489 198.956 1.00 44.05 C
ATOM 3184 C SER A 521 198.456 186.713 200.424 1.00 44.05 C
ATOM 3185 O SER A 521 198.862 185.772 201.113 1.00 44.05 O
ATOM 3186 CB SER A 521 199.435 186.172 198.203 1.00 44.05 C
ATOM 3187 OG SER A 521 200.385 187.207 198.376 1.00 44.05 O
ATOM 3188 N LYS A 522 198.273 187.936 200.914 1.00 40.01 N
ATOM 3189 CA LYS A 522 198.476 188.255 202.313 1.00 40.01 C
ATOM 3190 C LYS A 522 197.204 188.138 203.135 1.00 40.01 C
ATOM 3191 O LYS A 522 197.290 188.018 204.361 1.00 40.01 O
ATOM 3192 CB LYS A 522 199.047 189.670 202.448 1.00 40.01 C
ATOM 3193 CG LYS A 522 199.478 190.039 203.841 1.00 40.01 C
ATOM 3194 CD LYS A 522 200.105 191.412 203.832 1.00 40.01 C
ATOM 3195 CE LYS A 522 201.607 191.315 203.635 1.00 40.01 C
ATOM 3196 NZ LYS A 522 201.960 191.040 202.214 1.00 40.01 N
ATOM 3197 N ILE A 523 196.036 188.165 202.501 1.00 39.85 N
ATOM 3198 CA ILE A 523 194.799 187.856 203.204 1.00 39.85 C
ATOM 3199 C ILE A 523 194.682 186.365 203.470 1.00 39.85 C
ATOM 3200 O ILE A 523 194.716 185.934 204.623 1.00 39.85 O
ATOM 3201 CB ILE A 523 193.586 188.374 202.408 1.00 39.85 C
ATOM 3202 CG1 ILE A 523 193.589 189.898 202.357 1.00 39.85 C
ATOM 3203 CG2 ILE A 523 192.298 187.864 203.017 1.00 39.85 C
ATOM 3204 CD1 ILE A 523 192.553 190.468 201.426 1.00 39.85 C
ATOM 3205 N ASN A 524 194.588 185.558 202.419 1.00 38.60 N
ATOM 3206 CA ASN A 524 194.503 184.113 202.567 1.00 38.60 C
ATOM 3207 C ASN A 524 195.429 183.445 201.560 1.00 38.60 C
ATOM 3208 O ASN A 524 195.078 183.318 200.380 1.00 38.60 O
ATOM 3209 CB ASN A 524 193.066 183.630 202.375 1.00 38.60 C
ATOM 3210 CG ASN A 524 192.882 182.184 202.779 1.00 38.60 C
ATOM 3211 OD1 ASN A 524 193.826 181.525 203.210 1.00 38.60 O
ATOM 3212 ND2 ASN A 524 191.663 181.681 202.639 1.00 38.60 N
ATOM 3213 N PRO A 525 196.617 183.011 201.984 1.00 35.26 N
ATOM 3214 CA PRO A 525 197.563 182.425 201.025 1.00 35.26 C

ATOM 3215 C PRO A 525 197.091 181.110 200.439 1.00 35.26 C
ATOM 3216 O PRO A 525 197.404 180.817 199.279 1.00 35.26 O
ATOM 3217 CB PRO A 525 198.835 182.237 201.861 1.00 35.26 C
ATOM 3218 CG PRO A 525 198.682 183.180 203.005 1.00 35.26 C
ATOM 3219 CD PRO A 525 197.222 183.196 203.309 1.00 35.26 C
ATOM 3220 N SER A 526 196.353 180.306 201.204 1.00 36.57 N
ATOM 3221 CA SER A 526 195.939 178.997 200.712 1.00 36.57 C
ATOM 3222 C SER A 526 194.983 179.121 199.534 1.00 36.57 C
ATOM 3223 O SER A 526 195.111 178.391 198.546 1.00 36.57 O
ATOM 3224 CB SER A 526 195.295 178.195 201.840 1.00 36.57 C
ATOM 3225 OG SER A 526 196.227 177.937 202.874 1.00 36.57 O
ATOM 3226 N ALA A 527 194.021 180.039 199.616 1.00 37.58 N
ATOM 3227 CA ALA A 527 193.037 180.169 198.548 1.00 37.58 C
ATOM 3228 C ALA A 527 193.665 180.746 197.286 1.00 37.58 C
ATOM 3229 O ALA A 527 193.439 180.239 196.182 1.00 37.58 O
ATOM 3230 CB ALA A 527 191.869 181.037 199.013 1.00 37.58 C
ATOM 3231 N ILE A 528 194.453 181.812 197.430 1.00 40.36 N
ATOM 3232 CA ILE A 528 195.061 182.450 196.266 1.00 40.36 C
ATOM 3233 C ILE A 528 196.057 181.510 195.601 1.00 40.36 C
ATOM 3234 O ILE A 528 195.964 181.222 194.402 1.00 40.36 O
ATOM 3235 CB ILE A 528 195.726 183.777 196.667 1.00 40.36 C
ATOM 3236 CG1 ILE A 528 194.686 184.729 197.253 1.00 40.36 C
ATOM 3237 CG2 ILE A 528 196.412 184.403 195.472 1.00 40.36 C
ATOM 3238 CD1 ILE A 528 193.585 185.084 196.286 1.00 40.36 C
ATOM 3239 N LEU A 529 197.030 181.022 196.370 1.00 39.94 N
ATOM 3240 CA LEU A 529 198.079 180.175 195.819 1.00 39.94 C
ATOM 3241 C LEU A 529 197.557 178.847 195.290 1.00 39.94 C
ATOM 3242 O LEU A 529 198.239 178.219 194.475 1.00 39.94 O
ATOM 3243 CB LEU A 529 199.149 179.925 196.879 1.00 39.94 C
ATOM 3244 CG LEU A 529 200.369 179.128 196.429 1.00 39.94 C
ATOM 3245 CD1 LEU A 529 201.101 179.880 195.339 1.00 39.94 C
ATOM 3246 CD2 LEU A 529 201.286 178.865 197.607 1.00 39.94 C
ATOM 3247 N SER A 530 196.381 178.402 195.725 1.00 41.34 N
ATOM 3248 CA SER A 530 195.778 177.182 195.210 1.00 41.34 C

ATOM 3249 C SER A 530 194.778 177.448 194.097 1.00 41.34 C
ATOM 3250 O SER A 530 194.185 176.499 193.577 1.00 41.34 O
ATOM 3251 CB SER A 530 195.093 176.408 196.339 1.00 41.34 C
ATOM 3252 OG SER A 530 194.457 175.245 195.843 1.00 41.34 O
ATOM 3253 N ALA A 531 194.572 178.708 193.725 1.00 45.28 N
ATOM 3254 CA ALA A 531 193.679 179.041 192.627 1.00 45.28 C
ATOM 3255 C ALA A 531 194.409 179.219 191.306 1.00 45.28 C
ATOM 3256 O ALA A 531 193.786 179.086 190.247 1.00 45.28 O
ATOM 3257 CB ALA A 531 192.895 180.316 192.948 1.00 45.28 C
ATOM 3258 N ILE A 532 195.710 179.516 191.341 1.00 51.65 N
ATOM 3259 CA ILE A 532 196.504 179.660 190.129 1.00 51.65 C
ATOM 3260 C ILE A 532 197.232 178.379 189.760 1.00 51.65 C
ATOM 3261 O ILE A 532 197.947 178.350 188.750 1.00 51.65 O
ATOM 3262 CB ILE A 532 197.507 180.821 190.262 1.00 51.65 C
ATOM 3263 CG1 ILE A 532 198.511 180.531 191.374 1.00 51.65 C
ATOM 3264 CG2 ILE A 532 196.775 182.116 190.549 1.00 51.65 C
ATOM 3265 CD1 ILE A 532 199.651 181.515 191.428 1.00 51.65 C
ATOM 3266 N TYR A 533 197.075 177.317 190.552 1.00 55.10 N
ATOM 3267 CA TYR A 533 197.655 176.019 190.245 1.00 55.10 C
ATOM 3268 C TYR A 533 196.617 174.935 190.008 1.00 55.10 C
ATOM 3269 O TYR A 533 196.959 173.891 189.446 1.00 55.10 O
ATOM 3270 CB TYR A 533 198.588 175.567 191.378 1.00 55.10 C
ATOM 3271 CG TYR A 533 199.860 176.370 191.494 1.00 55.10 C
ATOM 3272 CD1 TYR A 533 200.290 177.180 190.455 1.00 55.10 C
ATOM 3273 CD2 TYR A 533 200.630 176.322 192.645 1.00 55.10 C
ATOM 3274 CE1 TYR A 533 201.453 177.916 190.558 1.00 55.10 C
ATOM 3275 CE2 TYR A 533 201.791 177.059 192.759 1.00 55.10 C
ATOM 3276 CZ TYR A 533 202.199 177.850 191.712 1.00 55.10 C
ATOM 3277 OH TYR A 533 203.357 178.583 191.820 1.00 55.10 O
ATOM 3278 N ASN A 534 195.368 175.154 190.418 1.00 53.71 N
ATOM 3279 CA ASN A 534 194.293 174.178 190.248 1.00 53.71 C
ATOM 3280 C ASN A 534 194.607 172.881 190.995 1.00 53.71 C
ATOM 3281 O ASN A 534 194.700 171.798 190.416 1.00 53.71 O
ATOM 3282 CB ASN A 534 194.026 173.914 188.764 1.00 53.71 C

ATOM 3283 CG ASN A 534 193.488 175.134 188.044 1.00 53.71 C
ATOM 3284 OD1 ASN A 534 194.139 175.686 187.158 1.00 53.71 O
ATOM 3285 ND2 ASN A 534 192.290 175.561 188.424 1.00 53.71 N
ATOM 3286 N LYS A 535 194.770 173.015 192.313 1.00 50.47 N
ATOM 3287 CA LYS A 535 195.009 171.872 193.177 1.00 50.47 C
ATOM 3288 C LYS A 535 194.873 172.328 194.617 1.00 50.47 C
ATOM 3289 O LYS A 535 195.254 173.465 194.925 1.00 50.47 O
ATOM 3290 CB LYS A 535 196.398 171.272 192.940 1.00 50.47 C
ATOM 3291 CG LYS A 535 196.663 169.997 193.721 1.00 50.47 C
ATOM 3292 CD LYS A 535 198.074 169.483 193.486 1.00 50.47 C
ATOM 3293 CE LYS A 535 198.105 168.417 192.406 1.00 50.47 C
ATOM 3294 NZ LYS A 535 197.995 169.009 191.046 1.00 50.47 N
ATOM 3295 N PRO A 536 194.347 171.498 195.513 1.00 46.60 N
ATOM 3296 CA PRO A 536 194.262 171.900 196.923 1.00 46.60 C
ATOM 3297 C PRO A 536 195.633 171.963 197.574 1.00 46.60 C
ATOM 3298 O PRO A 536 196.303 170.937 197.726 1.00 46.60 O
ATOM 3299 CB PRO A 536 193.387 170.808 197.546 1.00 46.60 C
ATOM 3300 CG PRO A 536 193.593 169.624 196.670 1.00 46.60 C
ATOM 3301 CD PRO A 536 193.772 170.163 195.281 1.00 46.60 C
ATOM 3302 N ILE A 537 196.058 173.163 197.963 1.00 42.41 N
ATOM 3303 CA ILE A 537 197.388 173.394 198.511 1.00 42.41 C
ATOM 3304 C ILE A 537 197.257 174.150 199.824 1.00 42.41 C
ATOM 3305 O ILE A 537 196.407 175.035 199.960 1.00 42.41 O
ATOM 3306 CB ILE A 537 198.278 174.174 197.523 1.00 42.41 C
ATOM 3307 CG1 ILE A 537 198.544 173.342 196.271 1.00 42.41 C
ATOM 3308 CG2 ILE A 537 199.582 174.574 198.175 1.00 42.41 C
ATOM 3309 CD1 ILE A 537 199.212 174.117 195.164 1.00 42.41 C
ATOM 3310 N ALA A 538 198.103 173.801 200.788 1.00 40.05 N
ATOM 3311 CA ALA A 538 198.155 174.466 202.083 1.00 40.05 C
ATOM 3312 C ALA A 538 199.477 175.210 202.195 1.00 40.05 C
ATOM 3313 O ALA A 538 200.541 174.584 202.232 1.00 40.05 O
ATOM 3314 CB ALA A 538 198.004 173.462 203.224 1.00 40.05 C
ATOM 3315 N ALA A 539 199.408 176.534 202.249 1.00 38.30 N
ATOM 3316 CA ALA A 539 200.586 177.382 202.322 1.00 38.30 C

ATOM 3317 C ALA A 539 200.569 178.182 203.616 1.00 38.30 C
ATOM 3318 O ALA A 539 199.588 178.186 204.362 1.00 38.30 O
ATOM 3319 CB ALA A 539 200.663 178.323 201.116 1.00 38.30 C
ATOM 3320 N ARG A 540 201.678 178.868 203.876 1.00 37.64 N
ATOM 3321 CA ARG A 540 201.829 179.659 205.087 1.00 37.64 C
ATOM 3322 C ARG A 540 203.071 180.520 204.952 1.00 37.64 C
ATOM 3323 O ARG A 540 204.090 180.059 204.436 1.00 37.64 O
ATOM 3324 CB ARG A 540 201.941 178.764 206.326 1.00 37.64 C
ATOM 3325 CG ARG A 540 202.057 179.528 207.626 1.00 37.64 C
ATOM 3326 CD ARG A 540 202.169 178.587 208.811 1.00 37.64 C
ATOM 3327 NE ARG A 540 203.395 177.798 208.778 1.00 37.64 N
ATOM 3328 CZ ARG A 540 204.574 178.233 209.210 1.00 37.64 C
ATOM 3329 NH1 ARG A 540 205.638 177.447 209.146 1.00 37.64 N
ATOM 3330 NH2 ARG A 540 204.691 179.457 209.703 1.00 37.64 N
ATOM 3331 N PHE A 541 202.982 181.765 205.413 1.00 37.98 N
ATOM 3332 CA PHE A 541 204.144 182.638 205.367 1.00 37.98 C
ATOM 3333 C PHE A 541 205.246 182.098 206.264 1.00 37.98 C
ATOM 3334 O PHE A 541 204.985 181.494 207.307 1.00 37.98 O
ATOM 3335 CB PHE A 541 203.776 184.058 205.786 1.00 37.98 C
ATOM 3336 CG PHE A 541 202.948 184.784 204.779 1.00 37.98 C
ATOM 3337 CD1 PHE A 541 203.534 185.329 203.652 1.00 37.98 C
ATOM 3338 CD2 PHE A 541 201.586 184.929 204.957 1.00 37.98 C
ATOM 3339 CE1 PHE A 541 202.778 185.999 202.719 1.00 37.98 C
ATOM 3340 CE2 PHE A 541 200.824 185.600 204.028 1.00 37.98 C
ATOM 3341 CZ PHE A 541 201.420 186.136 202.906 1.00 37.98 C
ATOM 3342 N MET A 542 206.484 182.320 205.846 1.00 36.94 N
ATOM 3343 CA MET A 542 207.667 181.822 206.532 1.00 36.94 C
ATOM 3344 C MET A 542 208.683 182.946 206.667 1.00 36.94 C
ATOM 3345 O MET A 542 209.868 182.807 206.360 1.00 36.94 O
ATOM 3346 CB MET A 542 208.214 180.606 205.790 1.00 36.94 C
ATOM 3347 CG MET A 542 209.344 179.887 206.489 1.00 36.94 C
ATOM 3348 SD MET A 542 209.769 178.333 205.679 1.00 36.94 S
ATOM 3349 CE MET A 542 210.559 178.916 204.184 1.00 36.94 C
ATOM 3350 N GLY A 543 208.205 184.091 207.144 1.00 35.86 N

ATOM 3351 CA GLY A 543 208.970 185.320 207.184 1.00 35.86 C
ATOM 3352 C GLY A 543 208.726 186.202 205.977 1.00 35.86 C
ATOM 3353 O GLY A 543 208.048 187.226 206.089 1.00 35.86 O
ATOM 3354 N ASP A 544 209.256 185.816 204.817 1.00 36.95 N
ATOM 3355 CA ASP A 544 208.974 186.532 203.579 1.00 36.95 C
ATOM 3356 C ASP A 544 208.788 185.596 202.394 1.00 36.95 C
ATOM 3357 O ASP A 544 208.709 186.074 201.256 1.00 36.95 O
ATOM 3358 CB ASP A 544 210.088 187.532 203.253 1.00 36.95 C
ATOM 3359 CG ASP A 544 210.054 188.758 204.137 1.00 36.95 C
ATOM 3360 OD1 ASP A 544 208.951 189.176 204.541 1.00 36.95 O
ATOM 3361 OD2 ASP A 544 211.137 189.306 204.429 1.00 36.95 O
ATOM 3362 N VAL A 545 208.711 184.287 202.617 1.00 36.04 N
ATOM 3363 CA VAL A 545 208.699 183.307 201.539 1.00 36.04 C
ATOM 3364 C VAL A 545 207.662 182.247 201.873 1.00 36.04 C
ATOM 3365 O VAL A 545 207.736 181.618 202.933 1.00 36.04 O
ATOM 3366 CB VAL A 545 210.077 182.658 201.337 1.00 36.04 C
ATOM 3367 CG1 VAL A 545 210.000 181.595 200.266 1.00 36.04 C
ATOM 3368 CG2 VAL A 545 211.109 183.708 200.979 1.00 36.04 C
ATOM 3369 N LEU A 546 206.695 182.054 200.980 1.00 37.57 N
ATOM 3370 CA LEU A 546 205.654 181.063 201.210 1.00 37.57 C
ATOM 3371 C LEU A 546 206.247 179.662 201.286 1.00 37.57 C
ATOM 3372 O LEU A 546 207.242 179.346 200.630 1.00 37.57 O
ATOM 3373 CB LEU A 546 204.612 181.123 200.097 1.00 37.57 C
ATOM 3374 CG LEU A 546 203.797 182.409 199.997 1.00 37.57 C
ATOM 3375 CD1 LEU A 546 202.912 182.369 198.769 1.00 37.57 C
ATOM 3376 CD2 LEU A 546 202.968 182.602 201.247 1.00 37.57 C
ATOM 3377 N GLY A 547 205.620 178.816 202.097 1.00 37.20 N
ATOM 3378 CA GLY A 547 206.026 177.430 202.205 1.00 37.20 C
ATOM 3379 C GLY A 547 204.953 176.481 201.717 1.00 37.20 C
ATOM 3380 O GLY A 547 203.904 176.343 202.351 1.00 37.20 O
ATOM 3381 N LEU A 548 205.202 175.821 200.592 1.00 39.81 N
ATOM 3382 CA LEU A 548 204.202 174.948 200.002 1.00 39.81 C
ATOM 3383 C LEU A 548 204.124 173.622 200.751 1.00 39.81 C
ATOM 3384 O LEU A 548 205.095 173.150 201.345 1.00 39.81 O

ATOM 3385 CB LEU A 548 204.518 174.685 198.530 1.00 39.81 C
ATOM 3386 CG LEU A 548 204.059 175.716 197.503 1.00 39.81 C
ATOM 3387 CD1 LEU A 548 202.551 175.792 197.475 1.00 39.81 C
ATOM 3388 CD2 LEU A 548 204.655 177.072 197.803 1.00 39.81 C
ATOM 3389 N ALA A 549 202.938 173.024 200.716 1.00 40.99 N
ATOM 3390 CA ALA A 549 202.714 171.677 201.216 1.00 40.99 C
ATOM 3391 C ALA A 549 201.277 171.303 200.895 1.00 40.99 C
ATOM 3392 O ALA A 549 200.398 172.166 200.832 1.00 40.99 O
ATOM 3393 CB ALA A 549 202.975 171.567 202.719 1.00 40.99 C
ATOM 3394 N SER A 550 201.047 170.010 200.700 1.00 44.44 N
ATOM 3395 CA SER A 550 199.698 169.521 200.451 1.00 44.44 C
ATOM 3396 C SER A 550 199.007 169.298 201.794 1.00 44.44 C
ATOM 3397 O SER A 550 199.509 169.695 202.848 1.00 44.44 O
ATOM 3398 CB SER A 550 199.733 168.271 199.579 1.00 44.44 C
ATOM 3399 OG SER A 550 200.356 167.196 200.249 1.00 44.44 O
ATOM 3400 N CYS A 551 197.845 168.653 201.776 1.00 40.61 N
ATOM 3401 CA CYS A 551 196.955 168.631 202.928 1.00 40.61 C
ATOM 3402 C CYS A 551 196.834 167.227 203.499 1.00 40.61 C
ATOM 3403 O CYS A 551 196.867 166.241 202.756 1.00 40.61 O
ATOM 3404 CB CYS A 551 195.580 169.165 202.541 1.00 40.61 C
ATOM 3405 SG CYS A 551 195.622 170.893 202.044 1.00 40.61 S
ATOM 3406 N VAL A 552 196.696 167.146 204.824 1.00 35.13 N
ATOM 3407 CA VAL A 552 196.440 165.871 205.471 1.00 35.13 C
ATOM 3408 C VAL A 552 195.064 165.366 205.037 1.00 35.13 C
ATOM 3409 O VAL A 552 194.211 166.127 204.568 1.00 35.13 O
ATOM 3410 CB VAL A 552 196.517 166.025 206.999 1.00 35.13 C
ATOM 3411 CG1 VAL A 552 196.448 164.676 207.703 1.00 35.13 C
ATOM 3412 CG2 VAL A 552 197.755 166.804 207.406 1.00 35.13 C
ATOM 3413 N THR A 553 194.848 164.063 205.199 1.00 34.48 N
ATOM 3414 CA THR A 553 193.562 163.438 204.913 1.00 34.48 C
ATOM 3415 C THR A 553 193.099 162.685 206.151 1.00 34.48 C
ATOM 3416 O THR A 553 193.776 161.758 206.607 1.00 34.48 O
ATOM 3417 CB THR A 553 193.656 162.494 203.713 1.00 34.48 C
ATOM 3418 OG1 THR A 553 194.043 163.232 202.548 1.00 34.48 O

ATOM 3419 CG2 THR A 553 192.317 161.829 203.458 1.00 34.48 C
ATOM 3420 N ILE A 554 191.945 163.078 206.688 1.00 38.37 N
ATOM 3421 CA ILE A 554 191.395 162.470 207.895 1.00 38.37 C
ATOM 3422 C ILE A 554 190.719 161.171 207.475 1.00 38.37 C
ATOM 3423 O ILE A 554 190.584 160.901 206.278 1.00 38.37 O
ATOM 3424 CB ILE A 554 190.423 163.423 208.616 1.00 38.37 C
ATOM 3425 CG1 ILE A 554 191.077 164.781 208.824 1.00 38.37 C
ATOM 3426 CG2 ILE A 554 190.074 162.913 210.002 1.00 38.37 C
ATOM 3427 CD1 ILE A 554 190.781 165.760 207.732 1.00 38.37 C
ATOM 3428 N ASN A 555 190.306 160.357 208.455 1.00 46.26 N
ATOM 3429 CA ASN A 555 189.844 158.995 208.202 1.00 46.26 C
ATOM 3430 C ASN A 555 188.708 158.923 207.185 1.00 46.26 C
ATOM 3431 O ASN A 555 188.515 157.869 206.571 1.00 46.26 O
ATOM 3432 CB ASN A 555 189.381 158.340 209.504 1.00 46.26 C
ATOM 3433 CG ASN A 555 189.431 156.833 209.431 1.00 46.26 C
ATOM 3434 OD1 ASN A 555 189.967 156.283 208.470 1.00 46.26 O
ATOM 3435 ND2 ASN A 555 188.865 156.153 210.427 1.00 46.26 N
ATOM 3436 N GLN A 556 187.937 160.002 207.021 1.00 44.62 N
ATOM 3437 CA GLN A 556 186.917 160.132 205.981 1.00 44.62 C
ATOM 3438 C GLN A 556 185.667 159.306 206.260 1.00 44.62 C
ATOM 3439 O GLN A 556 184.696 159.377 205.501 1.00 44.62 O
ATOM 3440 CB GLN A 556 187.474 159.736 204.610 1.00 44.62 C
ATOM 3441 CG GLN A 556 188.610 160.595 204.100 1.00 44.62 C
ATOM 3442 CD GLN A 556 188.188 162.018 203.832 1.00 44.62 C
ATOM 3443 OE1 GLN A 556 187.087 162.271 203.347 1.00 44.62 O
ATOM 3444 NE2 GLN A 556 189.064 162.962 204.147 1.00 44.62 N
ATOM 3445 N THR A 557 185.670 158.520 207.336 1.00 48.54 N
ATOM 3446 CA THR A 557 184.539 157.644 207.609 1.00 48.54 C
ATOM 3447 C THR A 557 184.122 157.641 209.073 1.00 48.54 C
ATOM 3448 O THR A 557 183.298 156.803 209.462 1.00 48.54 O
ATOM 3449 CB THR A 557 184.852 156.213 207.173 1.00 48.54 C
ATOM 3450 OG1 THR A 557 183.681 155.404 207.321 1.00 48.54 O
ATOM 3451 CG2 THR A 557 185.965 155.638 208.025 1.00 48.54 C
ATOM 3452 N SER A 558 184.658 158.541 209.898 1.00 43.86 N

ATOM 3453 CA SER A 558 184.276 158.608 211.302 1.00 43.86 C
ATOM 3454 C SER A 558 184.113 160.050 211.760 1.00 43.86 C
ATOM 3455 O SER A 558 184.322 160.359 212.937 1.00 43.86 O
ATOM 3456 CB SER A 558 185.297 157.892 212.186 1.00 43.86 C
ATOM 3457 OG SER A 558 184.951 158.006 213.554 1.00 43.86 O
ATOM 3458 N VAL A 559 183.742 160.939 210.846 1.00 35.64 N
ATOM 3459 CA VAL A 559 183.532 162.351 211.140 1.00 35.64 C
ATOM 3460 C VAL A 559 182.044 162.593 211.334 1.00 35.64 C
ATOM 3461 O VAL A 559 181.215 162.076 210.575 1.00 35.64 O
ATOM 3462 CB VAL A 559 184.096 163.234 210.014 1.00 35.64 C
ATOM 3463 CG1 VAL A 559 183.746 164.683 210.260 1.00 35.64 C
ATOM 3464 CG2 VAL A 559 185.597 163.056 209.913 1.00 35.64 C
ATOM 3465 N LYS A 560 181.698 163.390 212.347 1.00 32.00 N
ATOM 3466 CA LYS A 560 180.300 163.593 212.739 1.00 32.00 C
ATOM 3467 C LYS A 560 180.101 165.067 213.084 1.00 32.00 C
ATOM 3468 O LYS A 560 180.411 165.501 214.195 1.00 32.00 O
ATOM 3469 CB LYS A 560 179.933 162.689 213.908 1.00 32.00 C
ATOM 3470 CG LYS A 560 179.949 161.211 213.569 1.00 32.00 C
ATOM 3471 CD LYS A 560 179.484 160.367 214.742 1.00 32.00 C
ATOM 3472 CE LYS A 560 180.554 160.303 215.820 1.00 32.00 C
ATOM 3473 NZ LYS A 560 180.191 159.372 216.924 1.00 32.00 N
ATOM 3474 N VAL A 561 179.575 165.830 212.128 1.00 29.55 N
ATOM 3475 CA VAL A 561 179.281 167.237 212.370 1.00 29.55 C
ATOM 3476 C VAL A 561 178.135 167.338 213.368 1.00 29.55 C
ATOM 3477 O VAL A 561 177.031 166.843 213.118 1.00 29.55 O
ATOM 3478 CB VAL A 561 178.938 167.959 211.063 1.00 29.55 C
ATOM 3479 CG1 VAL A 561 178.502 169.378 211.355 1.00 29.55 C
ATOM 3480 CG2 VAL A 561 180.130 167.951 210.131 1.00 29.55 C
ATOM 3481 N LEU A 562 178.391 167.987 214.499 1.00 31.47 N
ATOM 3482 CA LEU A 562 177.369 168.120 215.526 1.00 31.47 C
ATOM 3483 C LEU A 562 176.262 169.057 215.062 1.00 31.47 C
ATOM 3484 O LEU A 562 176.518 170.086 214.433 1.00 31.47 O
ATOM 3485 CB LEU A 562 177.981 168.637 216.825 1.00 31.47 C
ATOM 3486 CG LEU A 562 178.977 167.699 217.505 1.00 31.47 C

ATOM 3487 CD1 LEU A 562 179.577 168.351 218.735 1.00 31.47 C
ATOM 3488 CD2 LEU A 562 178.311 166.385 217.863 1.00 31.47 C
ATOM 3489 N ARG A 563 175.023 168.694 215.381 1.00 40.66 N
ATOM 3490 CA ARG A 563 173.852 169.482 214.999 1.00 40.66 C
ATOM 3491 C ARG A 563 173.478 170.490 216.081 1.00 40.66 C
ATOM 3492 O ARG A 563 172.330 170.585 216.510 1.00 40.66 O
ATOM 3493 CB ARG A 563 172.688 168.552 214.683 1.00 40.66 C
ATOM 3494 CG ARG A 563 172.194 167.743 215.870 1.00 40.66 C
ATOM 3495 CD ARG A 563 171.039 166.836 215.489 1.00 40.66 C
ATOM 3496 NE ARG A 563 171.446 165.800 214.544 1.00 40.66 N
ATOM 3497 CZ ARG A 563 171.064 165.757 213.273 1.00 40.66 C
ATOM 3498 NH1 ARG A 563 171.487 164.777 212.486 1.00 40.66 N
ATOM 3499 NH2 ARG A 563 170.256 166.689 212.789 1.00 40.66 N
ATOM 3500 N ASP A 564 174.457 171.274 216.519 1.00 41.59 N
ATOM 3501 CA ASP A 564 174.225 172.257 217.567 1.00 41.59 C
ATOM 3502 C ASP A 564 175.392 173.229 217.579 1.00 41.59 C
ATOM 3503 O ASP A 564 176.519 172.866 217.233 1.00 41.59 O
ATOM 3504 CB ASP A 564 174.068 171.584 218.935 1.00 41.59 C
ATOM 3505 CG ASP A 564 173.566 172.535 219.996 1.00 41.59 C
ATOM 3506 OD1 ASP A 564 173.352 173.724 219.681 1.00 41.59 O
ATOM 3507 OD2 ASP A 564 173.384 172.093 221.150 1.00 41.59 O
ATOM 3508 N MET A 565 175.111 174.467 217.980 1.00 39.48 N
ATOM 3509 CA MET A 565 176.124 175.509 217.993 1.00 39.48 C
ATOM 3510 C MET A 565 176.126 176.341 219.266 1.00 39.48 C
ATOM 3511 O MET A 565 176.935 177.269 219.373 1.00 39.48 O
ATOM 3512 CB MET A 565 175.952 176.436 216.781 1.00 39.48 C
ATOM 3513 CG MET A 565 176.239 175.762 215.454 1.00 39.48 C
ATOM 3514 SD MET A 565 175.934 176.832 214.038 1.00 39.48 S
ATOM 3515 CE MET A 565 177.277 178.001 214.200 1.00 39.48 C
ATOM 3516 N ASN A 566 175.251 176.052 220.223 1.00 39.48 N
ATOM 3517 CA ASN A 566 175.260 176.761 221.493 1.00 39.48 C
ATOM 3518 C ASN A 566 176.345 176.191 222.396 1.00 39.48 C
ATOM 3519 O ASN A 566 176.443 174.972 222.565 1.00 39.48 O
ATOM 3520 CB ASN A 566 173.898 176.654 222.175 1.00 39.48 C

ATOM 3521 CG ASN A 566 172.828 177.454 221.467 1.00 39.48 C
ATOM 3522 OD1 ASN A 566 173.061 178.582 221.039 1.00 39.48 O
ATOM 3523 ND2 ASN A 566 171.643 176.872 221.339 1.00 39.48 N
ATOM 3524 N VAL A 567 177.164 177.071 222.971 1.00 43.51 N
ATOM 3525 CA VAL A 567 178.159 176.628 223.940 1.00 43.51 C
ATOM 3526 C VAL A 567 177.431 176.070 225.152 1.00 43.51 C
ATOM 3527 O VAL A 567 176.589 176.746 225.754 1.00 43.51 O
ATOM 3528 CB VAL A 567 179.095 177.775 224.321 1.00 43.51 C
ATOM 3529 CG1 VAL A 567 180.051 177.327 225.407 1.00 43.51 C
ATOM 3530 CG2 VAL A 567 179.861 178.253 223.105 1.00 43.51 C
ATOM 3531 N LYS A 568 177.757 174.829 225.518 1.00 47.40 N
ATOM 3532 CA LYS A 568 176.948 174.106 226.494 1.00 47.40 C
ATOM 3533 C LYS A 568 177.001 174.740 227.878 1.00 47.40 C
ATOM 3534 O LYS A 568 176.071 174.562 228.672 1.00 47.40 O
ATOM 3535 CB LYS A 568 177.399 172.649 226.567 1.00 47.40 C
ATOM 3536 CG LYS A 568 176.572 171.800 227.513 1.00 47.40 C
ATOM 3537 CD LYS A 568 177.039 170.357 227.503 1.00 47.40 C
ATOM 3538 CE LYS A 568 176.161 169.491 228.386 1.00 47.40 C
ATOM 3539 NZ LYS A 568 176.315 169.843 229.822 1.00 47.40 N
ATOM 3540 N GLU A 569 178.065 175.474 228.192 1.00 49.42 N
ATOM 3541 CA GLU A 569 178.233 176.015 229.536 1.00 49.42 C
ATOM 3542 C GLU A 569 177.953 177.508 229.629 1.00 49.42 C
ATOM 3543 O GLU A 569 177.315 177.950 230.589 1.00 49.42 O
ATOM 3544 CB GLU A 569 179.647 175.723 230.050 1.00 49.42 C
ATOM 3545 CG GLU A 569 180.759 176.382 229.255 1.00 49.42 C
ATOM 3546 CD GLU A 569 182.134 176.012 229.768 1.00 49.42 C
ATOM 3547 OE1 GLU A 569 182.215 175.232 230.739 1.00 49.42 O
ATOM 3548 OE2 GLU A 569 183.134 176.498 229.199 1.00 49.42 O
ATOM 3549 N SER A 570 178.406 178.302 228.660 1.00 48.43 N
ATOM 3550 CA SER A 570 178.265 179.749 228.734 1.00 48.43 C
ATOM 3551 C SER A 570 176.909 180.162 228.181 1.00 48.43 C
ATOM 3552 O SER A 570 176.687 180.044 226.967 1.00 48.43 O
ATOM 3553 CB SER A 570 179.383 180.435 227.965 1.00 48.43 C
ATOM 3554 OG SER A 570 180.640 180.157 228.552 1.00 48.43 O

ATOM 3555 N PRO A 571 175.982 180.646 229.011 1.00 47.82 N
ATOM 3556 CA PRO A 571 174.682 181.105 228.501 1.00 47.82 C
ATOM 3557 C PRO A 571 174.850 182.405 227.731 1.00 47.82 C
ATOM 3558 O PRO A 571 175.425 183.370 228.238 1.00 47.82 O
ATOM 3559 CB PRO A 571 173.856 181.307 229.776 1.00 47.82 C
ATOM 3560 CG PRO A 571 174.872 181.618 230.818 1.00 47.82 C
ATOM 3561 CD PRO A 571 176.091 180.805 230.471 1.00 47.82 C
ATOM 3562 N GLY A 572 174.347 182.429 226.500 1.00 44.96 N
ATOM 3563 CA GLY A 572 174.473 183.604 225.663 1.00 44.96 C
ATOM 3564 C GLY A 572 175.823 183.659 224.984 1.00 44.96 C
ATOM 3565 O GLY A 572 176.452 184.717 224.909 1.00 44.96 O
ATOM 3566 N ARG A 573 176.278 182.513 224.485 1.00 43.66 N
ATOM 3567 CA ARG A 573 177.596 182.432 223.865 1.00 43.66 C
ATOM 3568 C ARG A 573 177.560 181.274 222.880 1.00 43.66 C
ATOM 3569 O ARG A 573 177.476 180.113 223.289 1.00 43.66 O
ATOM 3570 CB ARG A 573 178.675 182.246 224.922 1.00 43.66 C
ATOM 3571 CG ARG A 573 180.083 182.270 224.389 1.00 43.66 C
ATOM 3572 CD ARG A 573 180.348 183.586 223.693 1.00 43.66 C
ATOM 3573 NE ARG A 573 180.108 184.726 224.569 1.00 43.66 N
ATOM 3574 CZ ARG A 573 180.087 185.988 224.153 1.00 43.66 C
ATOM 3575 NH1 ARG A 573 180.313 186.266 222.879 1.00 43.66 N
ATOM 3576 NH2 ARG A 573 179.847 186.970 225.009 1.00 43.66 N
ATOM 3577 N CYS A 574 177.612 181.590 221.593 1.00 40.43 N
ATOM 3578 CA CYS A 574 177.346 180.627 220.541 1.00 40.43 C
ATOM 3579 C CYS A 574 178.578 180.481 219.658 1.00 40.43 C
ATOM 3580 O CYS A 574 179.349 181.425 219.479 1.00 40.43 O
ATOM 3581 CB CYS A 574 176.136 181.076 219.713 1.00 40.43 C
ATOM 3582 SG CYS A 574 174.610 181.317 220.688 1.00 40.43 S
ATOM 3583 N TYR A 575 178.768 179.282 219.109 1.00 36.80 N
ATOM 3584 CA TYR A 575 179.880 179.060 218.196 1.00 36.80 C
ATOM 3585 C TYR A 575 179.671 179.857 216.913 1.00 36.80 C
ATOM 3586 O TYR A 575 178.630 180.480 216.691 1.00 36.80 O
ATOM 3587 CB TYR A 575 180.039 177.580 217.862 1.00 36.80 C
ATOM 3588 CG TYR A 575 180.478 176.709 219.009 1.00 36.80 C

ATOM 3589 CD1 TYR A 575 181.782 176.742 219.468 1.00 36.80 C
ATOM 3590 CD2 TYR A 575 179.601 175.816 219.598 1.00 36.80 C
ATOM 3591 CE1 TYR A 575 182.189 175.941 220.507 1.00 36.80 C
ATOM 3592 CE2 TYR A 575 180.000 175.007 220.634 1.00 36.80 C
ATOM 3593 CZ TYR A 575 181.295 175.073 221.084 1.00 36.80 C
ATOM 3594 OH TYR A 575 181.701 174.268 222.119 1.00 36.80 O
ATOM 3595 N SER A 576 180.678 179.821 216.043 1.00 36.53 N
ATOM 3596 CA SER A 576 180.604 180.488 214.755 1.00 36.53 C
ATOM 3597 C SER A 576 180.669 179.534 213.575 1.00 36.53 C
ATOM 3598 O SER A 576 180.379 179.953 212.450 1.00 36.53 O
ATOM 3599 CB SER A 576 181.730 181.523 214.618 1.00 36.53 C
ATOM 3600 OG SER A 576 181.695 182.146 213.347 1.00 36.53 O
ATOM 3601 N ARG A 577 181.035 178.275 213.793 1.00 35.85 N
ATOM 3602 CA ARG A 577 181.049 177.262 212.750 1.00 35.85 C
ATOM 3603 C ARG A 577 180.780 175.915 213.397 1.00 35.85 C
ATOM 3604 O ARG A 577 181.081 175.731 214.582 1.00 35.85 O
ATOM 3605 CB ARG A 577 182.385 177.236 211.996 1.00 35.85 C
ATOM 3606 CG ARG A 577 182.631 178.475 211.166 1.00 35.85 C
ATOM 3607 CD ARG A 577 183.923 178.377 210.392 1.00 35.85 C
ATOM 3608 NE ARG A 577 184.187 179.601 209.647 1.00 35.85 N
ATOM 3609 CZ ARG A 577 183.718 179.843 208.428 1.00 35.85 C
ATOM 3610 NH1 ARG A 577 182.956 178.946 207.820 1.00 35.85 N
ATOM 3611 NH2 ARG A 577 184.007 180.984 207.819 1.00 35.85 N
ATOM 3612 N PRO A 578 180.210 174.966 212.660 1.00 30.61 N
ATOM 3613 CA PRO A 578 179.816 173.687 213.266 1.00 30.61 C
ATOM 3614 C PRO A 578 181.023 172.926 213.788 1.00 30.61 C
ATOM 3615 O PRO A 578 181.966 172.642 213.048 1.00 30.61 O
ATOM 3616 CB PRO A 578 179.142 172.946 212.107 1.00 30.61 C
ATOM 3617 CG PRO A 578 178.741 174.017 211.150 1.00 30.61 C
ATOM 3618 CD PRO A 578 179.806 175.057 211.251 1.00 30.61 C
ATOM 3619 N VAL A 579 180.989 172.592 215.077 1.00 29.75 N
ATOM 3620 CA VAL A 579 182.092 171.852 215.675 1.00 29.75 C
ATOM 3621 C VAL A 579 182.073 170.417 215.169 1.00 29.75 C
ATOM 3622 O VAL A 579 181.021 169.765 215.125 1.00 29.75 O

ATOM 3623 CB VAL A 579 182.013 171.914 217.208 1.00 29.75 C
ATOM 3624 CG1 VAL A 579 180.754 171.238 217.697 1.00 29.75 C
ATOM 3625 CG2 VAL A 579 183.241 171.272 217.825 1.00 29.75 C
ATOM 3626 N VAL A 580 183.244 169.918 214.779 1.00 27.99 N
ATOM 3627 CA VAL A 580 183.381 168.613 214.148 1.00 27.99 C
ATOM 3628 C VAL A 580 184.264 167.736 215.021 1.00 27.99 C
ATOM 3629 O VAL A 580 185.179 168.222 215.693 1.00 27.99 O
ATOM 3630 CB VAL A 580 183.972 168.742 212.727 1.00 27.99 C
ATOM 3631 CG1 VAL A 580 184.158 167.383 212.093 1.00 27.99 C
ATOM 3632 CG2 VAL A 580 183.091 169.620 211.868 1.00 27.99 C
ATOM 3633 N ILE A 581 183.991 166.438 215.008 1.00 30.37 N
ATOM 3634 CA ILE A 581 184.789 165.456 215.741 1.00 30.37 C
ATOM 3635 C ILE A 581 185.333 164.467 214.715 1.00 30.37 C
ATOM 3636 O ILE A 581 184.696 163.471 214.364 1.00 30.37 O
ATOM 3637 CB ILE A 581 183.990 164.760 216.846 1.00 30.37 C
ATOM 3638 CG1 ILE A 581 182.703 164.141 216.300 1.00 30.37 C
ATOM 3639 CG2 ILE A 581 183.651 165.738 217.945 1.00 30.37 C
ATOM 3640 CD1 ILE A 581 181.997 163.244 217.284 1.00 30.37 C
ATOM 3641 N PHE A 582 186.532 164.741 214.214 1.00 35.58 N
ATOM 3642 CA PHE A 582 187.184 163.860 213.259 1.00 35.58 C
ATOM 3643 C PHE A 582 188.103 162.895 214.003 1.00 35.58 C
ATOM 3644 O PHE A 582 188.068 162.790 215.231 1.00 35.58 O
ATOM 3645 CB PHE A 582 187.928 164.676 212.204 1.00 35.58 C
ATOM 3646 CG PHE A 582 189.031 165.522 212.757 1.00 35.58 C
ATOM 3647 CD1 PHE A 582 188.780 166.808 213.189 1.00 35.58 C
ATOM 3648 CD2 PHE A 582 190.321 165.039 212.833 1.00 35.58 C
ATOM 3649 CE1 PHE A 582 189.790 167.591 213.695 1.00 35.58 C
ATOM 3650 CE2 PHE A 582 191.335 165.820 213.339 1.00 35.58 C
ATOM 3651 CZ PHE A 582 191.069 167.097 213.770 1.00 35.58 C
ATOM 3652 N ASN A 583 188.939 162.175 213.261 1.00 41.91 N
ATOM 3653 CA ASN A 583 189.841 161.199 213.865 1.00 41.91 C
ATOM 3654 C ASN A 583 190.944 160.890 212.869 1.00 41.91 C
ATOM 3655 O ASN A 583 190.658 160.462 211.746 1.00 41.91 O
ATOM 3656 CB ASN A 583 189.084 159.934 214.250 1.00 41.91 C

ATOM 3657 CG ASN A 583 189.913 158.996 215.094 1.00 41.91 C
ATOM 3658 OD1 ASN A 583 191.077 159.267 215.385 1.00 41.91 O
ATOM 3659 ND2 ASN A 583 189.315 157.883 215.498 1.00 41.91 N
ATOM 3660 N PHE A 584 192.194 161.103 213.271 1.00 40.57 N
ATOM 3661 CA PHE A 584 193.315 160.838 212.383 1.00 40.57 C
ATOM 3662 C PHE A 584 193.399 159.353 212.047 1.00 40.57 C
ATOM 3663 O PHE A 584 192.787 158.503 212.697 1.00 40.57 O
ATOM 3664 CB PHE A 584 194.627 161.300 213.011 1.00 40.57 C
ATOM 3665 CG PHE A 584 194.773 162.788 213.084 1.00 40.57 C
ATOM 3666 CD1 PHE A 584 195.135 163.512 211.965 1.00 40.57 C
ATOM 3667 CD2 PHE A 584 194.564 163.462 214.271 1.00 40.57 C
ATOM 3668 CE1 PHE A 584 195.274 164.881 212.024 1.00 40.57 C
ATOM 3669 CE2 PHE A 584 194.704 164.833 214.334 1.00 40.57 C
ATOM 3670 CZ PHE A 584 195.061 165.542 213.208 1.00 40.57 C
ATOM 3671 N ALA A 585 194.170 159.050 211.006 1.00 43.86 N
ATOM 3672 CA ALA A 585 194.329 157.671 210.570 1.00 43.86 C
ATOM 3673 C ALA A 585 194.998 156.834 211.654 1.00 43.86 C
ATOM 3674 O ALA A 585 195.832 157.321 212.420 1.00 43.86 O
ATOM 3675 CB ALA A 585 195.148 157.614 209.282 1.00 43.86 C
ATOM 3676 N ASN A 586 194.587 155.566 211.733 1.00 52.34 N
ATOM 3677 CA ASN A 586 195.157 154.570 212.638 1.00 52.34 C
ATOM 3678 C ASN A 586 194.771 154.775 214.097 1.00 52.34 C
ATOM 3679 O ASN A 586 195.063 153.919 214.937 1.00 52.34 O
ATOM 3680 CB ASN A 586 196.683 154.565 212.568 1.00 52.34 C
ATOM 3681 CG ASN A 586 197.224 154.095 211.244 1.00 52.34 C
ATOM 3682 OD1 ASN A 586 197.798 154.877 210.491 1.00 52.34 O
ATOM 3683 ND2 ASN A 586 197.074 152.811 210.958 1.00 52.34 N
ATOM 3684 N SER A 587 194.120 155.884 214.420 1.00 49.61 N
ATOM 3685 CA SER A 587 193.977 156.291 215.808 1.00 49.61 C
ATOM 3686 C SER A 587 192.623 155.876 216.371 1.00 49.61 C
ATOM 3687 O SER A 587 191.726 155.421 215.659 1.00 49.61 O
ATOM 3688 CB SER A 587 194.172 157.803 215.944 1.00 49.61 C
ATOM 3689 OG SER A 587 193.137 158.512 215.289 1.00 49.61 O
ATOM 3690 N SER A 588 192.493 156.039 217.688 1.00 53.97 N

ATOM 3691 CA SER A 588 191.246 155.745 218.381 1.00 53.97 C
ATOM 3692 C SER A 588 190.930 156.802 219.431 1.00 53.97 C
ATOM 3693 O SER A 588 190.158 156.531 220.358 1.00 53.97 O
ATOM 3694 CB SER A 588 191.302 154.364 219.035 1.00 53.97 C
ATOM 3695 OG SER A 588 190.116 154.095 219.759 1.00 53.97 O
ATOM 3696 N TYR A 589 191.508 157.992 219.311 1.00 51.16 N
ATOM 3697 CA TYR A 589 191.358 159.065 220.290 1.00 51.16 C
ATOM 3698 C TYR A 589 190.750 160.257 219.560 1.00 51.16 C
ATOM 3699 O TYR A 589 191.418 160.904 218.748 1.00 51.16 O
ATOM 3700 CB TYR A 589 192.702 159.409 220.926 1.00 51.16 C
ATOM 3701 CG TYR A 589 193.270 158.309 221.801 1.00 51.16 C
ATOM 3702 CD1 TYR A 589 192.459 157.302 222.306 1.00 51.16 C
ATOM 3703 CD2 TYR A 589 194.623 158.265 222.102 1.00 51.16 C
ATOM 3704 CE1 TYR A 589 192.978 156.292 223.099 1.00 51.16 C
ATOM 3705 CE2 TYR A 589 195.153 157.261 222.889 1.00 51.16 C
ATOM 3706 CZ TYR A 589 194.326 156.277 223.386 1.00 51.16 C
ATOM 3707 OH TYR A 589 194.851 155.278 224.172 1.00 51.16 O
ATOM 3708 N VAL A 590 189.478 160.539 219.846 1.00 42.52 N
ATOM 3709 CA VAL A 590 188.740 161.544 219.093 1.00 42.52 C
ATOM 3710 C VAL A 590 189.293 162.933 219.380 1.00 42.52 C
ATOM 3711 O VAL A 590 189.967 163.166 220.391 1.00 42.52 O
ATOM 3712 CB VAL A 590 187.243 161.468 219.434 1.00 42.52 C
ATOM 3713 CG1 VAL A 590 186.687 160.107 219.058 1.00 42.52 C
ATOM 3714 CG2 VAL A 590 187.033 161.744 220.909 1.00 42.52 C
ATOM 3715 N GLN A 591 189.004 163.869 218.478 1.00 40.12 N
ATOM 3716 CA GLN A 591 189.408 165.256 218.669 1.00 40.12 C
ATOM 3717 C GLN A 591 188.259 166.206 218.365 1.00 40.12 C
ATOM 3718 O GLN A 591 187.114 165.774 218.210 1.00 40.12 O
ATOM 3719 CB GLN A 591 190.614 165.597 217.799 1.00 40.12 C
ATOM 3720 CG GLN A 591 191.864 164.850 218.185 1.00 40.12 C
ATOM 3721 CD GLN A 591 193.061 165.287 217.380 1.00 40.12 C
ATOM 3722 OE1 GLN A 591 192.954 166.139 216.501 1.00 40.12 O
ATOM 3723 NE2 GLN A 591 194.214 164.706 217.675 1.00 40.12 N
ATOM 3724 N TYR A 592 188.551 167.502 218.289 1.00 35.98 N

ATOM 3725 CA TYR A 592 187.527 168.507 218.045 1.00 35.98 C
ATOM 3726 C TYR A 592 188.074 169.573 217.114 1.00 35.98 C
ATOM 3727 O TYR A 592 189.159 170.111 217.349 1.00 35.98 O
ATOM 3728 CB TYR A 592 187.061 169.147 219.353 1.00 35.98 C
ATOM 3729 CG TYR A 592 186.343 168.189 220.263 1.00 35.98 C
ATOM 3730 CD1 TYR A 592 184.992 167.930 220.105 1.00 35.98 C
ATOM 3731 CD2 TYR A 592 187.025 167.525 221.266 1.00 35.98 C
ATOM 3732 CE1 TYR A 592 184.336 167.048 220.934 1.00 35.98 C
ATOM 3733 CE2 TYR A 592 186.381 166.641 222.097 1.00 35.98 C
ATOM 3734 CZ TYR A 592 185.038 166.405 221.928 1.00 35.98 C
ATOM 3735 OH TYR A 592 184.397 165.520 222.762 1.00 35.98 O
ATOM 3736 N GLY A 593 187.316 169.877 216.068 1.00 31.69 N
ATOM 3737 CA GLY A 593 187.694 170.919 215.136 1.00 31.69 C
ATOM 3738 C GLY A 593 186.458 171.448 214.446 1.00 31.69 C
ATOM 3739 O GLY A 593 185.439 170.761 214.339 1.00 31.69 O
ATOM 3740 N GLN A 594 186.558 172.683 213.973 1.00 29.95 N
ATOM 3741 CA GLN A 594 185.422 173.387 213.405 1.00 29.95 C
ATOM 3742 C GLN A 594 185.475 173.341 211.886 1.00 29.95 C
ATOM 3743 O GLN A 594 186.533 173.544 211.285 1.00 29.95 O
ATOM 3744 CB GLN A 594 185.387 174.833 213.888 1.00 29.95 C
ATOM 3745 CG GLN A 594 185.131 174.961 215.370 1.00 29.95 C
ATOM 3746 CD GLN A 594 185.122 176.396 215.813 1.00 29.95 C
ATOM 3747 OE1 GLN A 594 185.357 177.294 215.014 1.00 29.95 O
ATOM 3748 NE2 GLN A 594 184.855 176.625 217.090 1.00 29.95 N
ATOM 3749 N LEU A 595 184.324 173.067 211.277 1.00 33.45 N
ATOM 3750 CA LEU A 595 184.227 172.989 209.828 1.00 33.45 C
ATOM 3751 C LEU A 595 184.604 174.320 209.191 1.00 33.45 C
ATOM 3752 O LEU A 595 184.470 175.381 209.804 1.00 33.45 O
ATOM 3753 CB LEU A 595 182.809 172.596 209.420 1.00 33.45 C
ATOM 3754 CG LEU A 595 182.550 172.376 207.932 1.00 33.45 C
ATOM 3755 CD1 LEU A 595 183.355 171.196 207.432 1.00 33.45 C
ATOM 3756 CD2 LEU A 595 181.072 172.168 207.674 1.00 33.45 C
ATOM 3757 N GLY A 596 185.078 174.258 207.951 1.00 39.74 N
ATOM 3758 CA GLY A 596 185.504 175.452 207.249 1.00 39.74 C

ATOM 3759 C GLY A 596 184.918 175.570 205.859 1.00 39.74 C
ATOM 3760 O GLY A 596 183.958 174.872 205.521 1.00 39.74 O
ATOM 3761 N GLU A 597 185.489 176.450 205.042 1.00 50.37 N
ATOM 3762 CA GLU A 597 184.965 176.671 203.703 1.00 50.37 C
ATOM 3763 C GLU A 597 185.422 175.569 202.756 1.00 50.37 C
ATOM 3764 O GLU A 597 186.541 175.061 202.860 1.00 50.37 O
ATOM 3765 CB GLU A 597 185.414 178.033 203.172 1.00 50.37 C
ATOM 3766 CG GLU A 597 184.862 179.227 203.940 1.00 50.37 C
ATOM 3767 CD GLU A 597 185.706 179.589 205.150 1.00 50.37 C
ATOM 3768 OE1 GLU A 597 186.764 178.954 205.350 1.00 50.37 O
ATOM 3769 OE2 GLU A 597 185.314 180.508 205.901 1.00 50.37 O
ATOM 3770 N ASP A 598 184.542 175.204 201.826 1.00 51.12 N
ATOM 3771 CA ASP A 598 184.845 174.225 200.782 1.00 51.12 C
ATOM 3772 C ASP A 598 185.192 172.862 201.377 1.00 51.12 C
ATOM 3773 O ASP A 598 185.970 172.097 200.805 1.00 51.12 O
ATOM 3774 CB ASP A 598 185.967 174.726 199.869 1.00 51.12 C
ATOM 3775 CG ASP A 598 185.991 174.016 198.529 1.00 51.12 C
ATOM 3776 OD1 ASP A 598 185.154 173.114 198.320 1.00 51.12 O
ATOM 3777 OD2 ASP A 598 186.833 174.374 197.678 1.00 51.12 O
ATOM 3778 N ASN A 599 184.602 172.558 202.533 1.00 44.02 N
ATOM 3779 CA ASN A 599 184.684 171.250 203.180 1.00 44.02 C
ATOM 3780 C ASN A 599 186.132 170.882 203.525 1.00 44.02 C
ATOM 3781 O ASN A 599 186.710 169.932 202.997 1.00 44.02 O
ATOM 3782 CB ASN A 599 184.048 170.170 202.300 1.00 44.02 C
ATOM 3783 CG ASN A 599 183.530 169.005 203.106 1.00 44.02 C
ATOM 3784 OD1 ASN A 599 182.798 168.158 202.597 1.00 44.02 O
ATOM 3785 ND2 ASN A 599 183.872 168.979 204.386 1.00 44.02 N
ATOM 3786 N GLU A 600 186.699 171.664 204.441 1.00 39.19 N
ATOM 3787 CA GLU A 600 188.024 171.365 204.973 1.00 39.19 C
ATOM 3788 C GLU A 600 188.046 171.699 206.455 1.00 39.19 C
ATOM 3789 O GLU A 600 187.711 172.819 206.846 1.00 39.19 O
ATOM 3790 CB GLU A 600 189.112 172.130 204.211 1.00 39.19 C
ATOM 3791 CG GLU A 600 189.034 173.646 204.263 1.00 39.19 C
ATOM 3792 CD GLU A 600 189.837 174.232 205.403 1.00 39.19 C

ATOM 3793 OE1 GLU A 600 190.695 173.511 205.951 1.00 39.19 O
ATOM 3794 OE2 GLU A 600 189.621 175.413 205.743 1.00 39.19 O
ATOM 3795 N ILE A 601 188.413 170.715 207.278 1.00 31.80 N
ATOM 3796 CA ILE A 601 188.456 170.917 208.720 1.00 31.80 C
ATOM 3797 C ILE A 601 189.589 171.866 209.075 1.00 31.80 C
ATOM 3798 O ILE A 601 190.661 171.846 208.455 1.00 31.80 O
ATOM 3799 CB ILE A 601 188.618 169.572 209.449 1.00 31.80 C
ATOM 3800 CG1 ILE A 601 187.390 168.690 209.242 1.00 31.80 C
ATOM 3801 CG2 ILE A 601 188.866 169.787 210.927 1.00 31.80 C
ATOM 3802 CD1 ILE A 601 187.584 167.277 209.736 1.00 31.80 C
ATOM 3803 N LEU A 602 189.356 172.706 210.077 1.00 30.73 N
ATOM 3804 CA LEU A 602 190.383 173.560 210.651 1.00 30.73 C
ATOM 3805 C LEU A 602 190.444 173.316 212.152 1.00 30.73 C
ATOM 3806 O LEU A 602 189.410 173.179 212.810 1.00 30.73 O
ATOM 3807 CB LEU A 602 190.115 175.036 210.342 1.00 30.73 C
ATOM 3808 CG LEU A 602 188.779 175.644 210.766 1.00 30.73 C
ATOM 3809 CD1 LEU A 602 188.810 176.109 212.206 1.00 30.73 C
ATOM 3810 CD2 LEU A 602 188.417 176.794 209.845 1.00 30.73 C
ATOM 3811 N LEU A 603 191.661 173.271 212.685 1.00 31.47 N
ATOM 3812 CA LEU A 603 191.888 172.775 214.033 1.00 31.47 C
ATOM 3813 C LEU A 603 191.359 173.747 215.084 1.00 31.47 C
ATOM 3814 O LEU A 603 191.055 174.909 214.806 1.00 31.47 O
ATOM 3815 CB LEU A 603 193.378 172.533 214.256 1.00 31.47 C
ATOM 3816 CG LEU A 603 194.008 171.439 213.399 1.00 31.47 C
ATOM 3817 CD1 LEU A 603 195.514 171.445 213.556 1.00 31.47 C
ATOM 3818 CD2 LEU A 603 193.442 170.088 213.782 1.00 31.47 C
ATOM 3819 N GLY A 604 191.254 173.246 216.309 1.00 32.70 N
ATOM 3820 CA GLY A 604 190.878 174.054 217.448 1.00 32.70 C
ATOM 3821 C GLY A 604 189.374 174.196 217.601 1.00 32.70 C
ATOM 3822 O GLY A 604 188.599 174.030 216.662 1.00 32.70 O
ATOM 3823 N ASN A 605 188.957 174.499 218.835 1.00 35.84 N
ATOM 3824 CA ASN A 605 187.552 174.762 219.152 1.00 35.84 C
ATOM 3825 C ASN A 605 187.486 176.047 219.973 1.00 35.84 C
ATOM 3826 O ASN A 605 187.351 176.005 221.197 1.00 35.84 O

ATOM 3827 CB ASN A 605 186.968 173.579 219.910 1.00 35.84 C
ATOM 3828 CG ASN A 605 185.469 173.502 219.810 1.00 35.84 C
ATOM 3829 OD1 ASN A 605 184.870 172.482 220.146 1.00 35.84 O
ATOM 3830 ND2 ASN A 605 184.850 174.570 219.332 1.00 35.84 N
ATOM 3831 N HIS A 606 187.572 177.201 219.299 1.00 38.37 N
ATOM 3832 CA HIS A 606 187.455 178.452 220.042 1.00 38.37 C
ATOM 3833 C HIS A 606 186.824 179.606 219.265 1.00 38.37 C
ATOM 3834 O HIS A 606 187.027 180.761 219.655 1.00 38.37 O
ATOM 3835 CB HIS A 606 188.823 178.874 220.559 1.00 38.37 C
ATOM 3836 CG HIS A 606 189.816 179.146 219.477 1.00 38.37 C
ATOM 3837 ND1 HIS A 606 190.499 178.142 218.826 1.00 38.37 N
ATOM 3838 CD2 HIS A 606 190.249 180.308 218.936 1.00 38.37 C
ATOM 3839 CE1 HIS A 606 191.303 178.675 217.924 1.00 38.37 C
ATOM 3840 NE2 HIS A 606 191.175 179.988 217.975 1.00 38.37 N
ATOM 3841 N ARG A 607 186.079 179.356 218.192 1.00 35.08 N
ATOM 3842 CA ARG A 607 185.516 180.449 217.398 1.00 35.08 C
ATOM 3843 C ARG A 607 184.126 180.836 217.911 1.00 35.08 C
ATOM 3844 O ARG A 607 183.139 180.823 217.179 1.00 35.08 O
ATOM 3845 CB ARG A 607 185.454 180.063 215.925 1.00 35.08 C
ATOM 3846 CG ARG A 607 186.746 180.189 215.134 1.00 35.08 C
ATOM 3847 CD ARG A 607 187.712 179.049 215.418 1.00 35.08 C
ATOM 3848 NE ARG A 607 188.818 179.014 214.463 1.00 35.08 N
ATOM 3849 CZ ARG A 607 189.837 178.160 214.520 1.00 35.08 C
ATOM 3850 NH1 ARG A 607 189.893 177.258 215.486 1.00 35.08 N
ATOM 3851 NH2 ARG A 607 190.797 178.206 213.603 1.00 35.08 N
ATOM 3852 N THR A 608 184.055 181.187 219.193 1.00 38.90 N
ATOM 3853 CA THR A 608 182.782 181.560 219.791 1.00 38.90 C
ATOM 3854 C THR A 608 182.330 182.925 219.274 1.00 38.90 C
ATOM 3855 O THR A 608 183.030 183.595 218.513 1.00 38.90 O
ATOM 3856 CB THR A 608 182.884 181.558 221.315 1.00 38.90 C
ATOM 3857 OG1 THR A 608 183.884 182.492 221.732 1.00 38.90 O
ATOM 3858 CG2 THR A 608 183.247 180.174 221.820 1.00 38.90 C
ATOM 3859 N GLU A 609 181.135 183.339 219.687 1.00 41.95 N
ATOM 3860 CA GLU A 609 180.583 184.628 219.291 1.00 41.95 C

ATOM 3861 C GLU A 609 179.308 184.875 220.080 1.00 41.95 C
ATOM 3862 O GLU A 609 178.624 183.929 220.479 1.00 41.95 O
ATOM 3863 CB GLU A 609 180.284 184.684 217.789 1.00 41.95 C
ATOM 3864 CG GLU A 609 179.123 183.813 217.336 1.00 41.95 C
ATOM 3865 CD GLU A 609 178.878 183.889 215.836 1.00 41.95 C
ATOM 3866 OE1 GLU A 609 179.632 184.600 215.140 1.00 41.95 O
ATOM 3867 OE2 GLU A 609 177.928 183.238 215.352 1.00 41.95 O
ATOM 3868 N GLU A 610 178.991 186.151 220.289 1.00 44.92 N
ATOM 3869 CA GLU A 610 177.736 186.499 220.935 1.00 44.92 C
ATOM 3870 C GLU A 610 176.572 186.015 220.072 1.00 44.92 C
ATOM 3871 O GLU A 610 176.733 185.695 218.892 1.00 44.92 O
ATOM 3872 CB GLU A 610 177.666 188.007 221.180 1.00 44.92 C
ATOM 3873 CG GLU A 610 176.454 188.479 221.953 1.00 44.92 C
ATOM 3874 CD GLU A 610 176.425 187.945 223.369 1.00 44.92 C
ATOM 3875 OE1 GLU A 610 177.505 187.661 223.928 1.00 44.92 O
ATOM 3876 OE2 GLU A 610 175.316 187.802 223.922 1.00 44.92 O
ATOM 3877 N CYS A 611 175.393 185.928 220.679 1.00 44.65 N
ATOM 3878 CA CYS A 611 174.245 185.302 220.041 1.00 44.65 C
ATOM 3879 C CYS A 611 173.234 186.376 219.660 1.00 44.65 C
ATOM 3880 O CYS A 611 172.858 187.207 220.492 1.00 44.65 O
ATOM 3881 CB CYS A 611 173.626 184.262 220.974 1.00 44.65 C
ATOM 3882 SG CYS A 611 174.875 183.103 221.629 1.00 44.65 S
ATOM 3883 N GLN A 612 172.801 186.355 218.403 1.00 46.16 N
ATOM 3884 CA GLN A 612 172.024 187.428 217.793 1.00 46.16 C
ATOM 3885 C GLN A 612 170.806 186.867 217.073 1.00 46.16 C
ATOM 3886 O GLN A 612 170.613 187.082 215.874 1.00 46.16 O
ATOM 3887 CB GLN A 612 172.894 188.258 216.855 1.00 46.16 C
ATOM 3888 CG GLN A 612 173.920 189.104 217.573 1.00 46.16 C
ATOM 3889 CD GLN A 612 173.286 190.097 218.525 1.00 46.16 C
ATOM 3890 OE1 GLN A 612 173.429 189.989 219.742 1.00 46.16 O
ATOM 3891 NE2 GLN A 612 172.556 191.058 217.973 1.00 46.16 N
ATOM 3892 N LEU A 613 170.021 186.074 217.800 1.00 38.10 N
ATOM 3893 CA LEU A 613 168.742 185.567 217.322 1.00 38.10 C
ATOM 3894 C LEU A 613 167.936 186.684 216.662 1.00 38.10 C

ATOM 3895 O LEU A 613 167.885 187.802 217.192 1.00 38.10 O
ATOM 3896 CB LEU A 613 167.936 185.000 218.494 1.00 38.10 C
ATOM 3897 CG LEU A 613 168.179 183.607 219.072 1.00 38.10 C
ATOM 3898 CD1 LEU A 613 167.911 182.541 218.031 1.00 38.10 C
ATOM 3899 CD2 LEU A 613 169.580 183.480 219.640 1.00 38.10 C
ATOM 3900 N PRO A 614 167.294 186.431 215.511 1.00 36.55 N
ATOM 3901 CA PRO A 614 167.335 185.207 214.704 1.00 36.55 C
ATOM 3902 C PRO A 614 168.586 185.147 213.832 1.00 36.55 C
ATOM 3903 O PRO A 614 169.249 186.166 213.664 1.00 36.55 O
ATOM 3904 CB PRO A 614 166.081 185.319 213.831 1.00 36.55 C
ATOM 3905 CG PRO A 614 165.218 186.333 214.509 1.00 36.55 C
ATOM 3906 CD PRO A 614 166.183 187.302 215.104 1.00 36.55 C
ATOM 3907 N SER A 615 168.904 183.977 213.283 1.00 36.05 N
ATOM 3908 CA SER A 615 170.068 183.824 212.423 1.00 36.05 C
ATOM 3909 C SER A 615 169.772 182.781 211.358 1.00 36.05 C
ATOM 3910 O SER A 615 168.959 181.878 211.565 1.00 36.05 O
ATOM 3911 CB SER A 615 171.309 183.427 213.226 1.00 36.05 C
ATOM 3912 OG SER A 615 171.658 184.446 214.146 1.00 36.05 O
ATOM 3913 N LEU A 616 170.424 182.923 210.207 1.00 32.62 N
ATOM 3914 CA LEU A 616 170.182 182.044 209.066 1.00 32.62 C
ATOM 3915 C LEU A 616 171.507 181.641 208.429 1.00 32.62 C
ATOM 3916 O LEU A 616 171.714 181.765 207.223 1.00 32.62 O
ATOM 3917 CB LEU A 616 169.242 182.714 208.064 1.00 32.62 C
ATOM 3918 CG LEU A 616 168.563 181.860 206.989 1.00 32.62 C
ATOM 3919 CD1 LEU A 616 167.184 182.416 206.750 1.00 32.62 C
ATOM 3920 CD2 LEU A 616 169.309 181.842 205.671 1.00 32.62 C
ATOM 3921 N LYS A 617 172.445 181.180 209.250 1.00 34.53 N
ATOM 3922 CA LYS A 617 173.744 180.772 208.733 1.00 34.53 C
ATOM 3923 C LYS A 617 173.602 179.586 207.787 1.00 34.53 C
ATOM 3924 O LYS A 617 172.877 178.630 208.074 1.00 34.53 O
ATOM 3925 CB LYS A 617 174.675 180.416 209.886 1.00 34.53 C
ATOM 3926 CG LYS A 617 175.047 181.593 210.757 1.00 34.53 C
ATOM 3927 CD LYS A 617 176.034 181.184 211.828 1.00 34.53 C
ATOM 3928 CE LYS A 617 176.350 182.349 212.740 1.00 34.53 C

ATOM 3929 NZ LYS A 617 177.083 183.420 212.014 1.00 34.53 N
ATOM 3930 N ILE A 618 174.306 179.648 206.659 1.00 33.26 N
ATOM 3931 CA ILE A 618 174.264 178.615 205.626 1.00 33.26 C
ATOM 3932 C ILE A 618 175.699 178.322 205.211 1.00 33.26 C
ATOM 3933 O ILE A 618 176.336 179.140 204.540 1.00 33.26 O
ATOM 3934 CB ILE A 618 173.421 179.031 204.418 1.00 33.26 C
ATOM 3935 CG1 ILE A 618 171.943 179.102 204.795 1.00 33.26 C
ATOM 3936 CG2 ILE A 618 173.650 178.081 203.263 1.00 33.26 C
ATOM 3937 CD1 ILE A 618 171.080 179.741 203.738 1.00 33.26 C
ATOM 3938 N PHE A 619 176.209 177.156 205.593 1.00 33.81 N
ATOM 3939 CA PHE A 619 177.581 176.777 205.295 1.00 33.81 C
ATOM 3940 C PHE A 619 177.647 175.896 204.054 1.00 33.81 C
ATOM 3941 O PHE A 619 176.808 175.017 203.847 1.00 33.81 O
ATOM 3942 CB PHE A 619 178.199 176.049 206.486 1.00 33.81 C
ATOM 3943 CG PHE A 619 178.341 176.907 207.703 1.00 33.81 C
ATOM 3944 CD1 PHE A 619 179.401 177.782 207.825 1.00 33.81 C
ATOM 3945 CD2 PHE A 619 177.408 176.848 208.718 1.00 33.81 C
ATOM 3946 CE1 PHE A 619 179.532 178.576 208.940 1.00 33.81 C
ATOM 3947 CE2 PHE A 619 177.534 177.640 209.835 1.00 33.81 C
ATOM 3948 CZ PHE A 619 178.597 178.505 209.946 1.00 33.81 C
ATOM 3949 N ILE A 620 178.675 176.125 203.240 1.00 39.30 N
ATOM 3950 CA ILE A 620 178.830 175.471 201.946 1.00 39.30 C
ATOM 3951 C ILE A 620 179.738 174.260 202.106 1.00 39.30 C
ATOM 3952 O ILE A 620 180.672 174.263 202.915 1.00 39.30 O
ATOM 3953 CB ILE A 620 179.400 176.447 200.898 1.00 39.30 C
ATOM 3954 CG1 ILE A 620 179.198 175.903 199.487 1.00 39.30 C
ATOM 3955 CG2 ILE A 620 180.870 176.702 201.161 1.00 39.30 C
ATOM 3956 CD1 ILE A 620 177.752 175.860 199.065 1.00 39.30 C
ATOM 3957 N ALA A 621 179.460 173.210 201.325 1.00 42.37 N
ATOM 3958 CA ALA A 621 180.206 171.967 201.462 1.00 42.37 C
ATOM 3959 C ALA A 621 180.544 171.260 200.155 1.00 42.37 C
ATOM 3960 O ALA A 621 181.095 170.157 200.212 1.00 42.37 O
ATOM 3961 CB ALA A 621 179.444 170.989 202.369 1.00 42.37 C
ATOM 3962 N GLY A 622 180.239 171.835 198.991 1.00 50.37 N

ATOM 3963 CA GLY A 622 180.661 171.224 197.743 1.00 50.37 C
ATOM 3964 C GLY A 622 180.080 169.847 197.480 1.00 50.37 C
ATOM 3965 O GLY A 622 180.791 168.844 197.592 1.00 50.37 O
ATOM 3966 N ASN A 623 178.797 169.776 197.138 1.00 50.57 N
ATOM 3967 CA ASN A 623 178.037 170.953 196.745 1.00 50.57 C
ATOM 3968 C ASN A 623 176.841 171.228 197.646 1.00 50.57 C
ATOM 3969 O ASN A 623 176.323 172.338 197.671 1.00 50.57 O
ATOM 3970 CB ASN A 623 177.570 170.803 195.297 1.00 50.57 C
ATOM 3971 CG ASN A 623 176.731 169.559 195.080 1.00 50.57 C
ATOM 3972 OD1 ASN A 623 176.430 168.823 196.019 1.00 50.57 O
ATOM 3973 ND2 ASN A 623 176.343 169.321 193.834 1.00 50.57 N
ATOM 3974 N SER A 624 176.393 170.212 198.375 1.00 43.24 N
ATOM 3975 CA SER A 624 175.334 170.427 199.348 1.00 43.24 C
ATOM 3976 C SER A 624 175.817 171.382 200.430 1.00 43.24 C
ATOM 3977 O SER A 624 177.013 171.465 200.718 1.00 43.24 O
ATOM 3978 CB SER A 624 174.900 169.098 199.961 1.00 43.24 C
ATOM 3979 OG SER A 624 174.340 168.249 198.975 1.00 43.24 O
ATOM 3980 N ALA A 625 174.883 172.116 201.025 1.00 36.89 N
ATOM 3981 CA ALA A 625 175.202 173.100 202.047 1.00 36.89 C
ATOM 3982 C ALA A 625 174.291 172.905 203.246 1.00 36.89 C
ATOM 3983 O ALA A 625 173.079 172.727 203.087 1.00 36.89 O
ATOM 3984 CB ALA A 625 175.059 174.523 201.510 1.00 36.89 C
ATOM 3985 N TYR A 626 174.876 172.933 204.438 1.00 35.50 N
ATOM 3986 CA TYR A 626 174.094 172.879 205.658 1.00 35.50 C
ATOM 3987 C TYR A 626 173.315 174.180 205.825 1.00 35.50 C
ATOM 3988 O TYR A 626 173.563 175.177 205.147 1.00 35.50 O
ATOM 3989 CB TYR A 626 175.008 172.643 206.857 1.00 35.50 C
ATOM 3990 CG TYR A 626 175.768 171.342 206.784 1.00 35.50 C
ATOM 3991 CD1 TYR A 626 175.207 170.156 207.227 1.00 35.50 C
ATOM 3992 CD2 TYR A 626 177.042 171.299 206.242 1.00 35.50 C
ATOM 3993 CE1 TYR A 626 175.902 168.969 207.151 1.00 35.50 C
ATOM 3994 CE2 TYR A 626 177.742 170.121 206.158 1.00 35.50 C
ATOM 3995 CZ TYR A 626 177.170 168.958 206.614 1.00 35.50 C
ATOM 3996 OH TYR A 626 177.869 167.780 206.532 1.00 35.50 O

ATOM 3997 N GLU A 627 172.362 174.166 206.753 1.00 36.67 N
ATOM 3998 CA GLU A 627 171.548 175.353 207.009 1.00 36.67 C
ATOM 3999 C GLU A 627 171.115 175.323 208.470 1.00 36.67 C
ATOM 4000 O GLU A 627 170.254 174.523 208.846 1.00 36.67 O
ATOM 4001 CB GLU A 627 170.345 175.414 206.083 1.00 36.67 C
ATOM 4002 CG GLU A 627 169.513 176.665 206.285 1.00 36.67 C
ATOM 4003 CD GLU A 627 168.297 176.720 205.388 1.00 36.67 C
ATOM 4004 OE1 GLU A 627 168.066 175.752 204.637 1.00 36.67 O
ATOM 4005 OE2 GLU A 627 167.570 177.734 205.435 1.00 36.67 O
ATOM 4006 N TYR A 628 171.709 176.190 209.278 1.00 34.02 N
ATOM 4007 CA TYR A 628 171.303 176.347 210.664 1.00 34.02 C
ATOM 4008 C TYR A 628 170.352 177.527 210.798 1.00 34.02 C
ATOM 4009 O TYR A 628 170.522 178.562 210.149 1.00 34.02 O
ATOM 4010 CB TYR A 628 172.522 176.553 211.559 1.00 34.02 C
ATOM 4011 CG TYR A 628 173.424 175.348 211.643 1.00 34.02 C
ATOM 4012 CD1 TYR A 628 173.152 174.314 212.524 1.00 34.02 C
ATOM 4013 CD2 TYR A 628 174.539 175.238 210.831 1.00 34.02 C
ATOM 4014 CE1 TYR A 628 173.974 173.211 212.600 1.00 34.02 C
ATOM 4015 CE2 TYR A 628 175.364 174.140 210.899 1.00 34.02 C
ATOM 4016 CZ TYR A 628 175.077 173.130 211.784 1.00 34.02 C
ATOM 4017 OH TYR A 628 175.899 172.034 211.853 1.00 34.02 O
ATOM 4018 N VAL A 629 169.347 177.365 211.655 1.00 34.31 N
ATOM 4019 CA VAL A 629 168.346 178.399 211.893 1.00 34.31 C
ATOM 4020 C VAL A 629 168.192 178.560 213.396 1.00 34.31 C
ATOM 4021 O VAL A 629 167.780 177.620 214.084 1.00 34.31 O
ATOM 4022 CB VAL A 629 166.991 178.063 211.251 1.00 34.31 C
ATOM 4023 CG1 VAL A 629 165.967 179.120 211.613 1.00 34.31 C
ATOM 4024 CG2 VAL A 629 167.137 177.951 209.750 1.00 34.31 C
ATOM 4025 N ASP A 630 168.514 179.747 213.906 1.00 39.16 N
ATOM 4026 CA ASP A 630 168.572 179.989 215.344 1.00 39.16 C
ATOM 4027 C ASP A 630 169.564 179.054 216.024 1.00 39.16 C
ATOM 4028 O ASP A 630 169.364 178.647 217.170 1.00 39.16 O
ATOM 4029 CB ASP A 630 167.192 179.864 215.992 1.00 39.16 C
ATOM 4030 CG ASP A 630 166.264 180.992 215.599 1.00 39.16 C

ATOM 4031 OD1 ASP A 630 166.766 182.090 215.285 1.00 39.16 O
ATOM 4032 OD2 ASP A 630 165.032 180.787 215.614 1.00 39.16 O
ATOM 4033 N TYR A 631 170.639 178.706 215.315 1.00 39.25 N
ATOM 4034 CA TYR A 631 171.719 177.897 215.873 1.00 39.25 C
ATOM 4035 C TYR A 631 171.242 176.479 216.192 1.00 39.25 C
ATOM 4036 O TYR A 631 171.473 175.951 217.280 1.00 39.25 O
ATOM 4037 CB TYR A 631 172.305 178.583 217.107 1.00 39.25 C
ATOM 4038 CG TYR A 631 173.028 179.867 216.774 1.00 39.25 C
ATOM 4039 CD1 TYR A 631 173.530 180.094 215.503 1.00 39.25 C
ATOM 4040 CD2 TYR A 631 173.163 180.871 217.714 1.00 39.25 C
ATOM 4041 CE1 TYR A 631 174.184 181.268 215.193 1.00 39.25 C
ATOM 4042 CE2 TYR A 631 173.813 182.051 217.415 1.00 39.25 C
ATOM 4043 CZ TYR A 631 174.320 182.246 216.153 1.00 39.25 C
ATOM 4044 OH TYR A 631 174.965 183.420 215.848 1.00 39.25 O
ATOM 4045 N LEU A 632 170.571 175.866 215.220 1.00 38.28 N
ATOM 4046 CA LEU A 632 170.144 174.475 215.293 1.00 38.28 C
ATOM 4047 C LEU A 632 170.004 173.956 213.871 1.00 38.28 C
ATOM 4048 O LEU A 632 169.412 174.631 213.025 1.00 38.28 O
ATOM 4049 CB LEU A 632 168.818 174.326 216.047 1.00 38.28 C
ATOM 4050 CG LEU A 632 168.829 174.608 217.548 1.00 38.28 C
ATOM 4051 CD1 LEU A 632 167.420 174.560 218.115 1.00 38.28 C
ATOM 4052 CD2 LEU A 632 169.724 173.611 218.255 1.00 38.28 C
ATOM 4053 N PHE A 633 170.552 172.772 213.611 1.00 36.72 N
ATOM 4054 CA PHE A 633 170.528 172.216 212.265 1.00 36.72 C
ATOM 4055 C PHE A 633 169.098 171.977 211.800 1.00 36.72 C
ATOM 4056 O PHE A 633 168.257 171.478 212.551 1.00 36.72 O
ATOM 4057 CB PHE A 633 171.322 170.913 212.221 1.00 36.72 C
ATOM 4058 CG PHE A 633 171.323 170.251 210.878 1.00 36.72 C
ATOM 4059 CD1 PHE A 633 172.061 170.771 209.835 1.00 36.72 C
ATOM 4060 CD2 PHE A 633 170.593 169.099 210.664 1.00 36.72 C
ATOM 4061 CE1 PHE A 633 172.063 170.161 208.602 1.00 36.72 C
ATOM 4062 CE2 PHE A 633 170.593 168.484 209.433 1.00 36.72 C
ATOM 4063 CZ PHE A 633 171.328 169.016 208.401 1.00 36.72 C
ATOM 4064 N LYS A 634 168.823 172.345 210.548 1.00 37.55 N

ATOM 4065 CA LYS A 634 167.476 172.252 209.997 1.00 37.55 C
ATOM 4066 C LYS A 634 167.374 171.247 208.857 1.00 37.55 C
ATOM 4067 O LYS A 634 166.595 170.294 208.954 1.00 37.55 O
ATOM 4068 CB LYS A 634 167.022 173.640 209.530 1.00 37.55 C
ATOM 4069 CG LYS A 634 165.614 173.677 208.977 1.00 37.55 C
ATOM 4070 CD LYS A 634 164.603 173.293 210.039 1.00 37.55 C
ATOM 4071 CE LYS A 634 164.569 174.315 211.162 1.00 37.55 C
ATOM 4072 NZ LYS A 634 164.010 175.619 210.711 1.00 37.55 N
ATOM 4073 N ARG A 635 168.133 171.423 207.780 1.00 40.47 N
ATOM 4074 CA ARG A 635 168.041 170.512 206.644 1.00 40.47 C
ATOM 4075 C ARG A 635 169.244 170.740 205.733 1.00 40.47 C
ATOM 4076 O ARG A 635 170.208 171.411 206.118 1.00 40.47 O
ATOM 4077 CB ARG A 635 166.704 170.697 205.908 1.00 40.47 C
ATOM 4078 CG ARG A 635 166.569 172.023 205.191 1.00 40.47 C
ATOM 4079 CD ARG A 635 165.189 172.168 204.574 1.00 40.47 C
ATOM 4080 NE ARG A 635 165.066 173.403 203.808 1.00 40.47 N
ATOM 4081 CZ ARG A 635 164.721 174.574 204.333 1.00 40.47 C
ATOM 4082 NH1 ARG A 635 164.465 174.670 205.630 1.00 40.47 N
ATOM 4083 NH2 ARG A 635 164.634 175.648 203.562 1.00 40.47 N
ATOM 4084 N MET A 636 169.185 170.180 204.528 1.00 38.33 N
ATOM 4085 CA MET A 636 170.249 170.285 203.539 1.00 38.33 C
ATOM 4086 C MET A 636 169.720 170.986 202.296 1.00 38.33 C
ATOM 4087 O MET A 636 168.645 170.641 201.796 1.00 38.33 O
ATOM 4088 CB MET A 636 170.785 168.901 203.167 1.00 38.33 C
ATOM 4089 CG MET A 636 171.471 168.167 204.301 1.00 38.33 C
ATOM 4090 SD MET A 636 172.957 169.004 204.866 1.00 38.33 S
ATOM 4091 CE MET A 636 174.022 168.760 203.450 1.00 38.33 C
ATOM 4092 N ILE A 637 170.471 171.966 201.805 1.00 41.57 N
ATOM 4093 CA ILE A 637 170.177 172.636 200.545 1.00 41.57 C
ATOM 4094 C ILE A 637 171.129 172.101 199.487 1.00 41.57 C
ATOM 4095 O ILE A 637 172.279 171.755 199.778 1.00 41.57 O
ATOM 4096 CB ILE A 637 170.293 174.168 200.685 1.00 41.57 C
ATOM 4097 CG1 ILE A 637 169.261 174.689 201.682 1.00 41.57 C
ATOM 4098 CG2 ILE A 637 170.115 174.855 199.343 1.00 41.57 C

ATOM 4099 CD1 ILE A 637 169.473 176.130 202.065 1.00 41.57 C
ATOM 4100 N ASP A 638 170.654 172.034 198.244 1.00 49.41 N
ATOM 4101 CA ASP A 638 171.417 171.460 197.143 1.00 49.41 C
ATOM 4102 C ASP A 638 172.076 172.522 196.266 1.00 49.41 C
ATOM 4103 O ASP A 638 172.478 172.236 195.136 1.00 49.41 O
ATOM 4104 CB ASP A 638 170.523 170.550 196.303 1.00 49.41 C
ATOM 4105 CG ASP A 638 169.310 171.273 195.752 1.00 49.41 C
ATOM 4106 OD1 ASP A 638 169.120 172.462 196.080 1.00 49.41 O
ATOM 4107 OD2 ASP A 638 168.542 170.649 194.990 1.00 49.41 O
ATOM 4108 N LEU A 639 172.206 173.746 196.778 1.00 50.39 N
ATOM 4109 CA LEU A 639 172.855 174.840 196.053 1.00 50.39 C
ATOM 4110 C LEU A 639 172.176 175.113 194.713 1.00 50.39 C
ATOM 4111 O LEU A 639 172.827 175.304 193.685 1.00 50.39 O
ATOM 4112 CB LEU A 639 174.348 174.570 195.864 1.00 50.39 C
ATOM 4113 CG LEU A 639 175.245 175.142 196.959 1.00 50.39 C
ATOM 4114 CD1 LEU A 639 175.225 176.650 196.888 1.00 50.39 C
ATOM 4115 CD2 LEU A 639 174.753 174.699 198.310 1.00 50.39 C
ATOM 4116 N SER A 640 170.854 175.127 194.732 1.00 52.66 N
ATOM 4117 CA SER A 640 170.077 175.609 193.600 1.00 52.66 C
ATOM 4118 C SER A 640 169.359 176.910 193.906 1.00 52.66 C
ATOM 4119 O SER A 640 169.173 177.734 193.008 1.00 52.66 O
ATOM 4120 CB SER A 640 169.056 174.554 193.157 1.00 52.66 C
ATOM 4121 OG SER A 640 168.290 175.025 192.061 1.00 52.66 O
ATOM 4122 N SER A 641 168.953 177.112 195.159 1.00 51.56 N
ATOM 4123 CA SER A 641 168.297 178.356 195.538 1.00 51.56 C
ATOM 4124 C SER A 641 169.249 179.540 195.436 1.00 51.56 C
ATOM 4125 O SER A 641 168.873 180.604 194.932 1.00 51.56 O
ATOM 4126 CB SER A 641 167.738 178.235 196.955 1.00 51.56 C
ATOM 4127 OG SER A 641 167.163 179.455 197.386 1.00 51.56 O
ATOM 4128 N ILE A 642 170.484 179.377 195.907 1.00 49.20 N
ATOM 4129 CA ILE A 642 171.438 180.478 195.897 1.00 49.20 C
ATOM 4130 C ILE A 642 171.818 180.808 194.461 1.00 49.20 C
ATOM 4131 O ILE A 642 172.237 179.932 193.694 1.00 49.20 O
ATOM 4132 CB ILE A 642 172.675 180.126 196.735 1.00 49.20 C

ATOM 4133 CG1 ILE A 642 172.288 179.935 198.202 1.00 49.20 C
ATOM 4134 CG2 ILE A 642 173.726 181.209 196.605 1.00 49.20 C
ATOM 4135 CD1 ILE A 642 171.905 178.520 198.555 1.00 49.20 C
ATOM 4136 N SER A 643 171.673 182.076 194.091 1.00 55.55 N
ATOM 4137 CA SER A 643 171.948 182.538 192.738 1.00 55.55 C
ATOM 4138 C SER A 643 173.359 183.102 192.666 1.00 55.55 C
ATOM 4139 O SER A 643 173.726 183.972 193.461 1.00 55.55 O
ATOM 4140 CB SER A 643 170.935 183.599 192.310 1.00 55.55 C
ATOM 4141 OG SER A 643 169.626 183.060 192.260 1.00 55.55 O
ATOM 4142 N THR A 644 174.145 182.603 191.715 1.00 66.26 N
ATOM 4143 CA THR A 644 175.514 183.071 191.557 1.00 66.26 C
ATOM 4144 C THR A 644 175.525 184.548 191.177 1.00 66.26 C
ATOM 4145 O THR A 644 174.599 185.055 190.539 1.00 66.26 O
ATOM 4146 CB THR A 644 176.237 182.239 190.498 1.00 66.26 C
ATOM 4147 OG1 THR A 644 176.160 180.854 190.850 1.00 66.26 O
ATOM 4148 CG2 THR A 644 177.698 182.631 190.421 1.00 66.26 C
ATOM 4149 N VAL A 645 176.591 185.244 191.580 1.00 70.08 N
ATOM 4150 CA VAL A 645 176.639 186.692 191.410 1.00 70.08 C
ATOM 4151 C VAL A 645 176.686 187.083 189.938 1.00 70.08 C
ATOM 4152 O VAL A 645 176.080 188.084 189.539 1.00 70.08 O
ATOM 4153 CB VAL A 645 177.829 187.284 192.185 1.00 70.08 C
ATOM 4154 CG1 VAL A 645 179.140 186.767 191.625 1.00 70.08 C
ATOM 4155 CG2 VAL A 645 177.787 188.798 192.128 1.00 70.08 C
ATOM 4156 N ASP A 646 177.397 186.321 189.106 1.00 80.16 N
ATOM 4157 CA ASP A 646 177.493 186.626 187.685 1.00 80.16 C
ATOM 4158 C ASP A 646 176.343 186.034 186.878 1.00 80.16 C
ATOM 4159 O ASP A 646 176.389 186.051 185.643 1.00 80.16 O
ATOM 4160 CB ASP A 646 178.841 186.158 187.126 1.00 80.16 C
ATOM 4161 CG ASP A 646 179.053 184.664 187.266 1.00 80.16 C
ATOM 4162 OD1 ASP A 646 178.190 183.984 187.853 1.00 80.16 O
ATOM 4163 OD2 ASP A 646 180.093 184.167 186.786 1.00 80.16 O
ATOM 4164 N SER A 647 175.315 185.513 187.547 1.00 85.01 N
ATOM 4165 CA SER A 647 174.107 185.044 186.887 1.00 85.01 C
ATOM 4166 C SER A 647 172.943 186.006 187.065 1.00 85.01 C

ATOM 4167 O SER A 647 171.860 185.758 186.524 1.00 85.01 O
ATOM 4168 CB SER A 647 173.717 183.657 187.410 1.00 85.01 C
ATOM 4169 OG SER A 647 174.705 182.695 187.086 1.00 85.01 O
ATOM 4170 N MET A 648 173.139 187.091 187.810 1.00 89.71 N
ATOM 4171 CA MET A 648 172.144 188.141 187.985 1.00 89.71 C
ATOM 4172 C MET A 648 172.810 189.503 187.875 1.00 89.71 C
ATOM 4173 O MET A 648 172.535 190.416 188.660 1.00 89.71 O
ATOM 4174 CB MET A 648 171.416 188.000 189.321 1.00 89.71 C
ATOM 4175 CG MET A 648 170.581 186.738 189.435 1.00 89.71 C
ATOM 4176 SD MET A 648 169.243 186.686 188.229 1.00 89.71 S
ATOM 4177 CE MET A 648 168.633 185.020 188.470 1.00 89.71 C
ATOM 4178 N ILE A 649 173.706 189.649 186.894 1.00 90.67 N
ATOM 4179 CA ILE A 649 174.500 190.868 186.757 1.00 90.67 C
ATOM 4180 C ILE A 649 173.615 192.081 186.504 1.00 90.67 C
ATOM 4181 O ILE A 649 173.996 193.214 186.819 1.00 90.67 O
ATOM 4182 CB ILE A 649 175.546 190.691 185.638 1.00 90.67 C
ATOM 4183 CG1 ILE A 649 176.525 189.570 185.996 1.00 90.67 C
ATOM 4184 CG2 ILE A 649 176.296 191.989 185.389 1.00 90.67 C
ATOM 4185 CD1 ILE A 649 177.428 189.157 184.853 1.00 90.67 C
ATOM 4186 N ALA A 650 172.429 191.872 185.941 1.00 95.20 N
ATOM 4187 CA ALA A 650 171.509 192.960 185.642 1.00 95.20 C
ATOM 4188 C ALA A 650 170.297 193.008 186.557 1.00 95.20 C
ATOM 4189 O ALA A 650 169.911 194.092 186.999 1.00 95.20 O
ATOM 4190 CB ALA A 650 171.033 192.863 184.188 1.00 95.20 C
ATOM 4191 N LEU A 651 169.685 191.866 186.859 1.00 94.98 N
ATOM 4192 CA LEU A 651 168.374 191.829 187.504 1.00 94.98 C
ATOM 4193 C LEU A 651 168.493 191.254 188.915 1.00 94.98 C
ATOM 4194 O LEU A 651 168.446 190.040 189.119 1.00 94.98 O
ATOM 4195 CB LEU A 651 167.383 191.031 186.659 1.00 94.98 C
ATOM 4196 CG LEU A 651 165.915 191.093 187.085 1.00 94.98 C
ATOM 4197 CD1 LEU A 651 165.012 190.928 185.877 1.00 94.98 C
ATOM 4198 CD2 LEU A 651 165.595 190.034 188.129 1.00 94.98 C
ATOM 4199 N ASP A 652 168.660 192.146 189.883 1.00 85.05 N
ATOM 4200 CA ASP A 652 168.357 191.924 191.293 1.00 85.05 C

ATOM 4201 C ASP A 652 167.605 193.136 191.818 1.00 85.05 C
ATOM 4202 O ASP A 652 167.927 193.703 192.864 1.00 85.05 O
ATOM 4203 CB ASP A 652 169.614 191.646 192.111 1.00 85.05 C
ATOM 4204 CG ASP A 652 170.615 192.779 192.054 1.00 85.05 C
ATOM 4205 OD1 ASP A 652 170.411 193.730 191.271 1.00 85.05 O
ATOM 4206 OD2 ASP A 652 171.598 192.731 192.816 1.00 85.05 O
ATOM 4207 N ILE A 653 166.557 193.508 191.072 1.00 83.24 N
ATOM 4208 CA ILE A 653 166.113 194.898 190.937 1.00 83.24 C
ATOM 4209 C ILE A 653 165.887 195.571 192.284 1.00 83.24 C
ATOM 4210 O ILE A 653 166.140 196.771 192.441 1.00 83.24 O
ATOM 4211 CB ILE A 653 164.850 194.962 190.060 1.00 83.24 C
ATOM 4212 CG1 ILE A 653 165.128 194.343 188.689 1.00 83.24 C
ATOM 4213 CG2 ILE A 653 164.375 196.400 189.915 1.00 83.24 C
ATOM 4214 CD1 ILE A 653 166.244 195.024 187.927 1.00 83.24 C
ATOM 4215 N ASP A 654 165.411 194.826 193.273 1.00 70.29 N
ATOM 4216 CA ASP A 654 165.230 195.480 194.561 1.00 70.29 C
ATOM 4217 C ASP A 654 165.308 194.511 195.733 1.00 70.29 C
ATOM 4218 O ASP A 654 164.472 193.608 195.863 1.00 70.29 O
ATOM 4219 CB ASP A 654 163.901 196.240 194.595 1.00 70.29 C
ATOM 4220 CG ASP A 654 162.708 195.361 194.263 1.00 70.29 C
ATOM 4221 OD1 ASP A 654 162.908 194.202 193.840 1.00 70.29 O
ATOM 4222 OD2 ASP A 654 161.565 195.828 194.444 1.00 70.29 O
ATOM 4223 N PRO A 655 166.298 194.665 196.602 1.00 58.74 N
ATOM 4224 CA PRO A 655 166.226 194.020 197.917 1.00 58.74 C
ATOM 4225 C PRO A 655 165.149 194.681 198.761 1.00 58.74 C
ATOM 4226 O PRO A 655 164.560 195.676 198.329 1.00 58.74 O
ATOM 4227 CB PRO A 655 167.630 194.233 198.490 1.00 58.74 C
ATOM 4228 CG PRO A 655 168.135 195.456 197.792 1.00 58.74 C
ATOM 4229 CD PRO A 655 167.550 195.415 196.413 1.00 58.74 C
ATOM 4230 N LEU A 656 164.879 194.167 199.959 1.00 46.93 N
ATOM 4231 CA LEU A 656 163.737 194.624 200.738 1.00 46.93 C
ATOM 4232 C LEU A 656 164.073 195.674 201.790 1.00 46.93 C
ATOM 4233 O LEU A 656 163.151 196.273 202.349 1.00 46.93 O
ATOM 4234 CB LEU A 656 163.045 193.435 201.414 1.00 46.93 C

ATOM 4235 CG LEU A 656 162.310 192.468 200.491 1.00 46.93 C
ATOM 4236 CD1 LEU A 656 161.791 191.285 201.284 1.00 46.93 C
ATOM 4237 CD2 LEU A 656 161.173 193.186 199.792 1.00 46.93 C
ATOM 4238 N GLU A 657 165.350 195.941 202.060 1.00 44.99 N
ATOM 4239 CA GLU A 657 165.733 196.895 203.100 1.00 44.99 C
ATOM 4240 C GLU A 657 165.220 196.432 204.468 1.00 44.99 C
ATOM 4241 O GLU A 657 164.341 197.033 205.085 1.00 44.99 O
ATOM 4242 CB GLU A 657 165.236 198.301 202.739 1.00 44.99 C
ATOM 4243 CG GLU A 657 165.798 199.439 203.568 1.00 44.99 C
ATOM 4244 CD GLU A 657 164.888 199.827 204.704 1.00 44.99 C
ATOM 4245 OE1 GLU A 657 163.661 199.669 204.549 1.00 44.99 O
ATOM 4246 OE2 GLU A 657 165.384 200.281 205.753 1.00 44.99 O
ATOM 4247 N ASN A 658 165.767 195.305 204.907 1.00 42.03 N
ATOM 4248 CA ASN A 658 165.385 194.697 206.168 1.00 42.03 C
ATOM 4249 C ASN A 658 166.064 195.387 207.346 1.00 42.03 C
ATOM 4250 O ASN A 658 166.982 196.193 207.177 1.00 42.03 O
ATOM 4251 CB ASN A 658 165.733 193.211 206.145 1.00 42.03 C
ATOM 4252 CG ASN A 658 167.175 192.962 205.771 1.00 42.03 C
ATOM 4253 OD1 ASN A 658 167.967 193.893 205.649 1.00 42.03 O
ATOM 4254 ND2 ASN A 658 167.517 191.701 205.556 1.00 42.03 N
ATOM 4255 N THR A 659 165.593 195.065 208.545 1.00 39.12 N
ATOM 4256 CA THR A 659 166.105 195.635 209.783 1.00 39.12 C
ATOM 4257 C THR A 659 166.385 194.521 210.789 1.00 39.12 C
ATOM 4258 O THR A 659 166.268 193.332 210.484 1.00 39.12 O
ATOM 4259 CB THR A 659 165.121 196.652 210.361 1.00 39.12 C
ATOM 4260 OG1 THR A 659 163.897 195.992 210.702 1.00 39.12 O
ATOM 4261 CG2 THR A 659 164.834 197.740 209.350 1.00 39.12 C
ATOM 4262 N ASP A 660 166.752 194.924 212.006 1.00 37.81 N
ATOM 4263 CA ASP A 660 167.027 193.972 213.081 1.00 37.81 C
ATOM 4264 C ASP A 660 166.792 194.700 214.402 1.00 37.81 C
ATOM 4265 O ASP A 660 167.627 195.503 214.827 1.00 37.81 O
ATOM 4266 CB ASP A 660 168.443 193.426 212.983 1.00 37.81 C
ATOM 4267 CG ASP A 660 168.679 192.261 213.918 1.00 37.81 C
ATOM 4268 OD1 ASP A 660 168.169 191.160 213.631 1.00 37.81 O

ATOM 4269 OD2 ASP A 660 169.372 192.440 214.940 1.00 37.81 O
ATOM 4270 N PHE A 661 165.666 194.407 215.045 1.00 35.43 N
ATOM 4271 CA PHE A 661 165.238 195.134 216.233 1.00 35.43 C
ATOM 4272 C PHE A 661 165.955 194.708 217.505 1.00 35.43 C
ATOM 4273 O PHE A 661 165.606 195.205 218.580 1.00 35.43 O
ATOM 4274 CB PHE A 661 163.734 194.962 216.433 1.00 35.43 C
ATOM 4275 CG PHE A 661 162.909 195.588 215.358 1.00 35.43 C
ATOM 4276 CD1 PHE A 661 162.610 196.936 215.392 1.00 35.43 C
ATOM 4277 CD2 PHE A 661 162.442 194.830 214.304 1.00 35.43 C
ATOM 4278 CE1 PHE A 661 161.851 197.512 214.398 1.00 35.43 C
ATOM 4279 CE2 PHE A 661 161.685 195.400 213.308 1.00 35.43 C
ATOM 4280 CZ PHE A 661 161.389 196.742 213.354 1.00 35.43 C
ATOM 4281 N ARG A 662 166.928 193.808 217.433 1.00 37.84 N
ATOM 4282 CA ARG A 662 167.584 193.326 218.641 1.00 37.84 C
ATOM 4283 C ARG A 662 169.013 193.816 218.791 1.00 37.84 C
ATOM 4284 O ARG A 662 169.394 194.245 219.879 1.00 37.84 O
ATOM 4285 CB ARG A 662 167.559 191.797 218.677 1.00 37.84 C
ATOM 4286 CG ARG A 662 166.159 191.230 218.779 1.00 37.84 C
ATOM 4287 CD ARG A 662 166.172 189.723 218.688 1.00 37.84 C
ATOM 4288 NE ARG A 662 166.803 189.093 219.840 1.00 37.84 N
ATOM 4289 CZ ARG A 662 166.144 188.703 220.926 1.00 37.84 C
ATOM 4290 NH1 ARG A 662 164.833 188.873 221.004 1.00 37.84 N
ATOM 4291 NH2 ARG A 662 166.800 188.133 221.924 1.00 37.84 N
ATOM 4292 N VAL A 663 169.820 193.777 217.726 1.00 37.94 N
ATOM 4293 CA VAL A 663 171.142 194.401 217.769 1.00 37.94 C
ATOM 4294 C VAL A 663 171.061 195.912 217.662 1.00 37.94 C
ATOM 4295 O VAL A 663 172.080 196.596 217.815 1.00 37.94 O
ATOM 4296 CB VAL A 663 172.051 193.875 216.641 1.00 37.94 C
ATOM 4297 CG1 VAL A 663 171.573 194.384 215.301 1.00 37.94 C
ATOM 4298 CG2 VAL A 663 173.496 194.271 216.876 1.00 37.94 C
ATOM 4299 N LEU A 664 169.873 196.458 217.420 1.00 35.68 N
ATOM 4300 CA LEU A 664 169.687 197.885 217.231 1.00 35.68 C
ATOM 4301 C LEU A 664 169.078 198.564 218.450 1.00 35.68 C
ATOM 4302 O LEU A 664 169.001 199.796 218.482 1.00 35.68 O

ATOM 4303 CB LEU A 664 168.812 198.121 215.988 1.00 35.68 C
ATOM 4304 CG LEU A 664 168.695 199.492 215.326 1.00 35.68 C
ATOM 4305 CD1 LEU A 664 168.408 199.342 213.849 1.00 35.68 C
ATOM 4306 CD2 LEU A 664 167.575 200.278 215.975 1.00 35.68 C
ATOM 4307 N GLU A 665 168.659 197.800 219.457 1.00 40.48 N
ATOM 4308 CA GLU A 665 168.234 198.351 220.735 1.00 40.48 C
ATOM 4309 C GLU A 665 169.371 198.416 221.743 1.00 40.48 C
ATOM 4310 O GLU A 665 169.190 198.969 222.833 1.00 40.48 O
ATOM 4311 CB GLU A 665 167.080 197.530 221.314 1.00 40.48 C
ATOM 4312 CG GLU A 665 165.786 197.650 220.534 1.00 40.48 C
ATOM 4313 CD GLU A 665 164.655 196.838 221.140 1.00 40.48 C
ATOM 4314 OE1 GLU A 665 164.907 196.086 222.104 1.00 40.48 O
ATOM 4315 OE2 GLU A 665 163.512 196.954 220.649 1.00 40.48 O
ATOM 4316 N LEU A 666 170.531 197.856 221.410 1.00 41.95 N
ATOM 4317 CA LEU A 666 171.738 198.014 222.208 1.00 41.95 C
ATOM 4318 C LEU A 666 172.452 199.322 221.916 1.00 41.95 C
ATOM 4319 O LEU A 666 173.021 199.931 222.825 1.00 41.95 O
ATOM 4320 CB LEU A 666 172.701 196.852 221.954 1.00 41.95 C
ATOM 4321 CG LEU A 666 172.243 195.460 222.376 1.00 41.95 C
ATOM 4322 CD1 LEU A 666 173.262 194.419 221.946 1.00 41.95 C
ATOM 4323 CD2 LEU A 666 172.015 195.405 223.873 1.00 41.95 C
ATOM 4324 N TYR A 667 172.446 199.752 220.654 1.00 39.23 N
ATOM 4325 CA TYR A 667 173.077 201.014 220.289 1.00 39.23 C
ATOM 4326 C TYR A 667 172.422 202.185 221.005 1.00 39.23 C
ATOM 4327 O TYR A 667 173.107 203.006 221.625 1.00 39.23 O
ATOM 4328 CB TYR A 667 173.022 201.196 218.775 1.00 39.23 C
ATOM 4329 CG TYR A 667 173.975 200.293 218.035 1.00 39.23 C
ATOM 4330 CD1 TYR A 667 175.078 199.755 218.671 1.00 39.23 C
ATOM 4331 CD2 TYR A 667 173.755 199.955 216.710 1.00 39.23 C
ATOM 4332 CE1 TYR A 667 175.951 198.930 218.002 1.00 39.23 C
ATOM 4333 CE2 TYR A 667 174.621 199.122 216.033 1.00 39.23 C
ATOM 4334 CZ TYR A 667 175.718 198.613 216.685 1.00 39.23 C
ATOM 4335 OH TYR A 667 176.586 197.783 216.016 1.00 39.23 O
ATOM 4336 N SER A 668 171.098 202.283 220.941 1.00 42.29 N

ATOM 4337 CA SER A 668 170.419 203.365 221.650 1.00 42.29 C
ATOM 4338 C SER A 668 170.047 202.958 223.070 1.00 42.29 C
ATOM 4339 O SER A 668 168.934 203.188 223.538 1.00 42.29 O
ATOM 4340 CB SER A 668 169.185 203.803 220.872 1.00 42.29 C
ATOM 4341 OG SER A 668 168.482 204.815 221.572 1.00 42.29 O
ATOM 4342 N GLN A 669 170.996 202.341 223.767 1.00 48.45 N
ATOM 4343 CA GLN A 669 170.914 202.189 225.212 1.00 48.45 C
ATOM 4344 C GLN A 669 172.261 202.360 225.898 1.00 48.45 C
ATOM 4345 O GLN A 669 172.292 202.474 227.127 1.00 48.45 O
ATOM 4346 CB GLN A 669 170.313 200.824 225.575 1.00 48.45 C
ATOM 4347 CG GLN A 669 169.940 200.671 227.040 1.00 48.45 C
ATOM 4348 CD GLN A 669 169.362 199.306 227.350 1.00 48.45 C
ATOM 4349 OE1 GLN A 669 169.284 198.441 226.478 1.00 48.45 O
ATOM 4350 NE2 GLN A 669 168.949 199.106 228.595 1.00 48.45 N
ATOM 4351 N LYS A 670 173.369 202.378 225.151 1.00 53.13 N
ATOM 4352 CA LYS A 670 174.717 202.596 225.684 1.00 53.13 C
ATOM 4353 C LYS A 670 175.227 201.406 226.501 1.00 53.13 C
ATOM 4354 O LYS A 670 175.816 201.581 227.568 1.00 53.13 O
ATOM 4355 CB LYS A 670 174.792 203.882 226.509 1.00 53.13 C
ATOM 4356 CG LYS A 670 174.998 205.144 225.687 1.00 53.13 C
ATOM 4357 CD LYS A 670 173.732 205.563 224.964 1.00 53.13 C
ATOM 4358 CE LYS A 670 173.930 206.889 224.245 1.00 53.13 C
ATOM 4359 NZ LYS A 670 172.737 207.278 223.443 1.00 53.13 N
ATOM 4360 N GLU A 671 175.009 200.187 225.997 1.00 56.69 N
ATOM 4361 CA GLU A 671 175.693 198.998 226.501 1.00 56.69 C
ATOM 4362 C GLU A 671 176.525 198.334 225.413 1.00 56.69 C
ATOM 4363 O GLU A 671 176.753 197.121 225.459 1.00 56.69 O
ATOM 4364 CB GLU A 671 174.710 197.983 227.085 1.00 56.69 C
ATOM 4365 CG GLU A 671 174.012 198.430 228.348 1.00 56.69 C
ATOM 4366 CD GLU A 671 172.825 199.293 228.031 1.00 56.69 C
ATOM 4367 OE1 GLU A 671 172.598 199.509 226.826 1.00 56.69 O
ATOM 4368 OE2 GLU A 671 172.123 199.739 228.962 1.00 56.69 O
ATOM 4369 N LEU A 672 176.985 199.108 224.437 1.00 57.86 N
ATOM 4370 CA LEU A 672 177.662 198.551 223.278 1.00 57.86 C

ATOM 4371 C LEU A 672 179.070 198.092 223.643 1.00 57.86 C
ATOM 4372 O LEU A 672 180.055 198.788 223.381 1.00 57.86 O
ATOM 4373 CB LEU A 672 177.661 199.582 222.143 1.00 57.86 C
ATOM 4374 CG LEU A 672 178.457 200.888 222.238 1.00 57.86 C
ATOM 4375 CD1 LEU A 672 178.587 201.529 220.867 1.00 57.86 C
ATOM 4376 CD2 LEU A 672 177.823 201.855 223.228 1.00 57.86 C
ATOM 4377 N ARG A 673 179.174 196.916 224.254 1.00 61.88 N
ATOM 4378 CA ARG A 673 180.490 196.390 224.603 1.00 61.88 C
ATOM 4379 C ARG A 673 180.705 194.936 224.197 1.00 61.88 C
ATOM 4380 O ARG A 673 181.835 194.563 223.873 1.00 61.88 O
ATOM 4381 CB ARG A 673 180.712 196.558 226.114 1.00 61.88 C
ATOM 4382 CG ARG A 673 182.100 196.187 226.594 1.00 61.88 C
ATOM 4383 CD ARG A 673 182.234 196.459 228.082 1.00 61.88 C
ATOM 4384 NE ARG A 673 181.366 195.592 228.872 1.00 61.88 N
ATOM 4385 CZ ARG A 673 181.131 195.753 230.170 1.00 61.88 C
ATOM 4386 NH1 ARG A 673 180.328 194.915 230.809 1.00 61.88 N
ATOM 4387 NH2 ARG A 673 181.694 196.756 230.828 1.00 61.88 N
ATOM 4388 N SER A 674 179.657 194.107 224.202 1.00 61.68 N
ATOM 4389 CA SER A 674 179.789 192.686 223.887 1.00 61.68 C
ATOM 4390 C SER A 674 179.058 192.307 222.608 1.00 61.68 C
ATOM 4391 O SER A 674 179.680 191.866 221.637 1.00 61.68 O
ATOM 4392 CB SER A 674 179.243 191.845 225.045 1.00 61.68 C
ATOM 4393 OG SER A 674 179.931 192.117 226.240 1.00 61.68 O
ATOM 4394 N SER A 675 177.741 192.486 222.584 1.00 61.04 N
ATOM 4395 CA SER A 675 176.952 192.428 221.365 1.00 61.04 C
ATOM 4396 C SER A 675 176.895 193.785 220.688 1.00 61.04 C
ATOM 4397 O SER A 675 176.007 194.022 219.862 1.00 61.04 O
ATOM 4398 CB SER A 675 175.540 191.918 221.666 1.00 61.04 C
ATOM 4399 OG SER A 675 174.763 191.840 220.484 1.00 61.04 O
ATOM 4400 N ASN A 676 177.793 194.690 221.085 1.00 59.26 N
ATOM 4401 CA ASN A 676 178.026 195.960 220.413 1.00 59.26 C
ATOM 4402 C ASN A 676 178.061 195.776 218.912 1.00 59.26 C
ATOM 4403 O ASN A 676 177.162 196.204 218.181 1.00 59.26 O
ATOM 4404 CB ASN A 676 179.370 196.515 220.895 1.00 59.26 C

ATOM 4405 CG ASN A 676 179.685 197.886 220.340 1.00 59.26 C
ATOM 4406 OD1 ASN A 676 178.892 198.482 219.612 1.00 59.26 O
ATOM 4407 ND2 ASN A 676 180.862 198.395 220.682 1.00 59.26 N
ATOM 4408 N VAL A 677 179.089 195.083 218.458 1.00 60.27 N
ATOM 4409 CA VAL A 677 179.280 194.734 217.074 1.00 60.27 C
ATOM 4410 C VAL A 677 179.829 193.316 217.043 1.00 60.27 C
ATOM 4411 O VAL A 677 180.223 192.756 218.068 1.00 60.27 O
ATOM 4412 CB VAL A 677 180.240 195.705 216.354 1.00 60.27 C
ATOM 4413 CG1 VAL A 677 179.683 197.115 216.375 1.00 60.27 C
ATOM 4414 CG2 VAL A 677 181.618 195.666 217.004 1.00 60.27 C
ATOM 4415 N PHE A 678 179.869 192.744 215.855 1.00 46.94 N
ATOM 4416 CA PHE A 678 180.552 191.488 215.654 1.00 46.94 C
ATOM 4417 C PHE A 678 181.782 191.607 214.791 1.00 46.94 C
ATOM 4418 O PHE A 678 182.631 190.711 214.838 1.00 46.94 O
ATOM 4419 CB PHE A 678 179.617 190.450 215.024 1.00 46.94 C
ATOM 4420 CG PHE A 678 178.761 189.765 216.012 1.00 46.94 C
ATOM 4421 CD1 PHE A 678 179.016 189.927 217.353 1.00 46.94 C
ATOM 4422 CD2 PHE A 678 177.739 188.929 215.619 1.00 46.94 C
ATOM 4423 CE1 PHE A 678 178.258 189.303 218.282 1.00 46.94 C
ATOM 4424 CE2 PHE A 678 176.971 188.293 216.556 1.00 46.94 C
ATOM 4425 CZ PHE A 678 177.232 188.484 217.894 1.00 46.94 C
ATOM 4426 N ASP A 679 181.916 192.679 214.021 1.00 44.52 N
ATOM 4427 CA ASP A 679 182.883 192.694 212.941 1.00 44.52 C
ATOM 4428 C ASP A 679 182.595 191.516 212.013 1.00 44.52 C
ATOM 4429 O ASP A 679 183.339 190.542 211.958 1.00 44.52 O
ATOM 4430 CB ASP A 679 184.313 192.653 213.484 1.00 44.52 C
ATOM 4431 CG ASP A 679 184.696 193.923 214.217 1.00 44.52 C
ATOM 4432 OD1 ASP A 679 184.182 195.001 213.855 1.00 44.52 O
ATOM 4433 OD2 ASP A 679 185.511 193.843 215.160 1.00 44.52 O
ATOM 4434 N LEU A 680 181.439 191.559 211.355 1.00 42.05 N
ATOM 4435 CA LEU A 680 181.083 190.468 210.457 1.00 42.05 C
ATOM 4436 C LEU A 680 181.765 190.639 209.108 1.00 42.05 C
ATOM 4437 O LEU A 680 182.338 189.688 208.564 1.00 42.05 O
ATOM 4438 CB LEU A 680 179.568 190.392 210.307 1.00 42.05 C

ATOM 4439 CG LEU A 680 178.832 190.023 211.597 1.00 42.05 C
ATOM 4440 CD1 LEU A 680 177.336 190.178 211.428 1.00 42.05 C
ATOM 4441 CD2 LEU A 680 179.169 188.604 212.016 1.00 42.05 C
ATOM 4442 N GLU A 681 181.718 191.846 208.560 1.00 43.19 N
ATOM 4443 CA GLU A 681 182.567 192.239 207.438 1.00 43.19 C
ATOM 4444 C GLU A 681 183.878 192.817 207.967 1.00 43.19 C
ATOM 4445 O GLU A 681 184.321 193.903 207.600 1.00 43.19 O
ATOM 4446 CB GLU A 681 181.829 193.235 206.551 1.00 43.19 C
ATOM 4447 CG GLU A 681 181.472 194.542 207.247 1.00 43.19 C
ATOM 4448 CD GLU A 681 180.636 195.454 206.374 1.00 43.19 C
ATOM 4449 OE1 GLU A 681 180.304 195.052 205.241 1.00 43.19 O
ATOM 4450 OE2 GLU A 681 180.308 196.573 206.820 1.00 43.19 O
ATOM 4451 N GLU A 682 184.517 192.033 208.835 1.00 45.43 N
ATOM 4452 CA GLU A 682 185.471 192.590 209.787 1.00 45.43 C
ATOM 4453 C GLU A 682 186.712 193.187 209.132 1.00 45.43 C
ATOM 4454 O GLU A 682 187.200 194.232 209.571 1.00 45.43 O
ATOM 4455 CB GLU A 682 185.813 191.541 210.850 1.00 45.43 C
ATOM 4456 CG GLU A 682 185.864 190.095 210.408 1.00 45.43 C
ATOM 4457 CD GLU A 682 185.808 189.166 211.610 1.00 45.43 C
ATOM 4458 OE1 GLU A 682 186.051 189.636 212.738 1.00 45.43 O
ATOM 4459 OE2 GLU A 682 185.392 187.999 211.458 1.00 45.43 O
ATOM 4460 N ILE A 683 187.212 192.591 208.053 1.00 40.05 N
ATOM 4461 CA ILE A 683 188.429 193.119 207.434 1.00 40.05 C
ATOM 4462 C ILE A 683 188.258 194.573 206.981 1.00 40.05 C
ATOM 4463 O ILE A 683 189.245 195.295 206.809 1.00 40.05 O
ATOM 4464 CB ILE A 683 188.899 192.204 206.289 1.00 40.05 C
ATOM 4465 CG1 ILE A 683 189.191 190.820 206.857 1.00 40.05 C
ATOM 4466 CG2 ILE A 683 190.162 192.746 205.642 1.00 40.05 C
ATOM 4467 CD1 ILE A 683 190.189 190.855 207.989 1.00 40.05 C
ATOM 4468 N MET A 684 187.015 195.031 206.827 1.00 42.18 N
ATOM 4469 CA MET A 684 186.721 196.461 206.802 1.00 42.18 C
ATOM 4470 C MET A 684 186.252 196.988 208.153 1.00 42.18 C
ATOM 4471 O MET A 684 186.636 198.088 208.558 1.00 42.18 O
ATOM 4472 CB MET A 684 185.658 196.779 205.745 1.00 42.18 C

ATOM 4473 CG MET A 684 185.333 198.257 205.616 1.00 42.18 C
ATOM 4474 SD MET A 684 186.717 199.225 205.008 1.00 42.18 S
ATOM 4475 CE MET A 684 186.267 200.857 205.593 1.00 42.18 C
ATOM 4476 N ARG A 685 185.403 196.242 208.853 1.00 43.12 N
ATOM 4477 CA ARG A 685 184.823 196.747 210.090 1.00 43.12 C
ATOM 4478 C ARG A 685 185.721 196.531 211.303 1.00 43.12 C
ATOM 4479 O ARG A 685 185.603 197.274 212.280 1.00 43.12 O
ATOM 4480 CB ARG A 685 183.469 196.089 210.332 1.00 43.12 C
ATOM 4481 CG ARG A 685 182.763 196.549 211.589 1.00 43.12 C
ATOM 4482 CD ARG A 685 182.379 198.010 211.493 1.00 43.12 C
ATOM 4483 NE ARG A 685 181.571 198.419 212.635 1.00 43.12 N
ATOM 4484 CZ ARG A 685 180.242 198.375 212.656 1.00 43.12 C
ATOM 4485 NH1 ARG A 685 179.572 197.957 211.590 1.00 43.12 N
ATOM 4486 NH2 ARG A 685 179.581 198.759 213.735 1.00 43.12 N
ATOM 4487 N GLU A 686 186.612 195.540 211.259 1.00 38.63 N
ATOM 4488 CA GLU A 686 187.387 195.172 212.438 1.00 38.63 C
ATOM 4489 C GLU A 686 188.532 196.133 212.719 1.00 38.63 C
ATOM 4490 O GLU A 686 189.000 196.192 213.859 1.00 38.63 O
ATOM 4491 CB GLU A 686 187.909 193.743 212.293 1.00 38.63 C
ATOM 4492 CG GLU A 686 188.599 193.161 213.504 1.00 38.63 C
ATOM 4493 CD GLU A 686 190.080 193.453 213.518 1.00 38.63 C
ATOM 4494 OE1 GLU A 686 190.659 193.654 212.431 1.00 38.63 O
ATOM 4495 OE2 GLU A 686 190.665 193.486 214.617 1.00 38.63 O
ATOM 4496 N PHE A 687 189.000 196.891 211.729 1.00 38.57 N
ATOM 4497 CA PHE A 687 190.114 197.796 211.963 1.00 38.57 C
ATOM 4498 C PHE A 687 189.643 199.186 212.374 1.00 38.57 C
ATOM 4499 O PHE A 687 190.421 199.949 212.951 1.00 38.57 O
ATOM 4500 CB PHE A 687 191.032 197.874 210.740 1.00 38.57 C
ATOM 4501 CG PHE A 687 190.443 198.575 209.532 1.00 38.57 C
ATOM 4502 CD1 PHE A 687 189.802 197.857 208.547 1.00 38.57 C
ATOM 4503 CD2 PHE A 687 190.561 199.951 209.373 1.00 38.57 C
ATOM 4504 CE1 PHE A 687 189.302 198.506 207.419 1.00 38.57 C
ATOM 4505 CE2 PHE A 687 190.052 200.584 208.284 1.00 38.57 C
ATOM 4506 CZ PHE A 687 189.421 199.872 207.308 1.00 38.57 C

ATOM 4507 N ASN A 688 188.386 199.524 212.095 1.00 37.25 N
ATOM 4508 CA ASN A 688 187.804 200.726 212.690 1.00 37.25 C
ATOM 4509 C ASN A 688 187.736 200.621 214.208 1.00 37.25 C
ATOM 4510 O ASN A 688 187.855 201.626 214.906 1.00 37.25 O
ATOM 4511 CB ASN A 688 186.396 200.967 212.116 1.00 37.25 C
ATOM 4512 CG ASN A 688 186.420 201.509 210.706 1.00 37.25 C
ATOM 4513 OD1 ASN A 688 187.281 202.310 210.352 1.00 37.25 O
ATOM 4514 ND2 ASN A 688 185.433 201.118 209.902 1.00 37.25 N
ATOM 4515 N SER A 689 187.557 199.401 214.731 1.00 38.20 N
ATOM 4516 CA SER A 689 187.369 199.231 216.170 1.00 38.20 C
ATOM 4517 C SER A 689 188.638 198.795 216.888 1.00 38.20 C
ATOM 4518 O SER A 689 188.727 198.964 218.107 1.00 38.20 O
ATOM 4519 CB SER A 689 186.263 198.201 216.433 1.00 38.20 C
ATOM 4520 OG SER A 689 185.020 198.646 215.924 1.00 38.20 O
ATOM 4521 N TYR A 690 189.614 198.227 216.165 1.00 36.81 N
ATOM 4522 CA TYR A 690 190.793 197.664 216.821 1.00 36.81 C
ATOM 4523 C TYR A 690 191.551 198.704 217.627 1.00 36.81 C
ATOM 4524 O TYR A 690 192.105 198.387 218.684 1.00 36.81 O
ATOM 4525 CB TYR A 690 191.738 197.045 215.794 1.00 36.81 C
ATOM 4526 CG TYR A 690 192.960 196.420 216.427 1.00 36.81 C
ATOM 4527 CD1 TYR A 690 192.886 195.183 217.046 1.00 36.81 C
ATOM 4528 CD2 TYR A 690 194.181 197.076 216.422 1.00 36.81 C
ATOM 4529 CE1 TYR A 690 193.996 194.610 217.629 1.00 36.81 C
ATOM 4530 CE2 TYR A 690 195.296 196.509 217.004 1.00 36.81 C
ATOM 4531 CZ TYR A 690 195.196 195.278 217.605 1.00 36.81 C
ATOM 4532 OH TYR A 690 196.305 194.711 218.186 1.00 36.81 O
ATOM 4533 N LYS A 691 191.590 199.939 217.150 1.00 37.93 N
ATOM 4534 CA LYS A 691 192.219 201.016 217.892 1.00 37.93 C
ATOM 4535 C LYS A 691 191.467 201.354 219.172 1.00 37.93 C
ATOM 4536 O LYS A 691 192.076 201.870 220.114 1.00 37.93 O
ATOM 4537 CB LYS A 691 192.307 202.244 216.996 1.00 37.93 C
ATOM 4538 CG LYS A 691 193.184 203.346 217.494 1.00 37.93 C
ATOM 4539 CD LYS A 691 193.064 204.499 216.531 1.00 37.93 C
ATOM 4540 CE LYS A 691 194.086 204.404 215.426 1.00 37.93 C

ATOM 4541 NZ LYS A 691 193.730 203.356 214.427 1.00 37.93 N
ATOM 4542 N GLN A 692 190.167 201.067 219.223 1.00 41.59 N
ATOM 4543 CA GLN A 692 189.353 201.250 220.417 1.00 41.59 C
ATOM 4544 C GLN A 692 189.642 200.221 221.493 1.00 41.59 C
ATOM 4545 O GLN A 692 189.646 200.562 222.680 1.00 41.59 O
ATOM 4546 CB GLN A 692 187.869 201.181 220.050 1.00 41.59 C
ATOM 4547 CG GLN A 692 186.925 201.222 221.235 1.00 41.59 C
ATOM 4548 CD GLN A 692 187.046 202.490 222.042 1.00 41.59 C
ATOM 4549 OE1 GLN A 692 187.601 202.489 223.138 1.00 41.59 O
ATOM 4550 NE2 GLN A 692 186.521 203.587 221.506 1.00 41.59 N
ATOM 4551 N ARG A 693 189.888 198.972 221.108 1.00 43.50 N
ATOM 4552 CA ARG A 693 190.094 197.886 222.053 1.00 43.50 C
ATOM 4553 C ARG A 693 191.554 197.732 222.458 1.00 43.50 C
ATOM 4554 O ARG A 693 191.975 196.635 222.841 1.00 43.50 O
ATOM 4555 CB ARG A 693 189.524 196.588 221.476 1.00 43.50 C
ATOM 4556 CG ARG A 693 187.997 196.602 221.483 1.00 43.50 C
ATOM 4557 CD ARG A 693 187.363 195.432 220.756 1.00 43.50 C
ATOM 4558 NE ARG A 693 185.905 195.512 220.820 1.00 43.50 N
ATOM 4559 CZ ARG A 693 185.070 194.770 220.098 1.00 43.50 C
ATOM 4560 NH1 ARG A 693 185.544 193.903 219.215 1.00 43.50 N
ATOM 4561 NH2 ARG A 693 183.762 194.916 220.238 1.00 43.50 N
ATOM 4562 N VAL A 694 192.334 198.809 222.379 1.00 42.59 N
ATOM 4563 CA VAL A 694 193.641 198.860 223.018 1.00 42.59 C
ATOM 4564 C VAL A 694 193.583 199.674 224.305 1.00 42.59 C
ATOM 4565 O VAL A 694 194.506 199.581 225.127 1.00 42.59 O
ATOM 4566 CB VAL A 694 194.699 199.433 222.053 1.00 42.59 C
ATOM 4567 CG1 VAL A 694 196.088 199.414 222.674 1.00 42.59 C
ATOM 4568 CG2 VAL A 694 194.673 198.657 220.766 1.00 42.59 C
ATOM 4569 N LYS A 695 192.524 200.457 224.510 1.00 47.30 N
ATOM 4570 CA LYS A 695 192.305 201.073 225.809 1.00 47.30 C
ATOM 4571 C LYS A 695 191.786 200.072 226.825 1.00 47.30 C
ATOM 4572 O LYS A 695 192.169 200.141 227.997 1.00 47.30 O
ATOM 4573 CB LYS A 695 191.315 202.228 225.702 1.00 47.30 C
ATOM 4574 CG LYS A 695 191.846 203.461 225.020 1.00 47.30 C

ATOM 4575 CD LYS A 695 190.827 204.569 225.145 1.00 47.30 C
ATOM 4576 CE LYS A 695 189.650 204.309 224.230 1.00 47.30 C
ATOM 4577 NZ LYS A 695 188.714 205.458 224.264 1.00 47.30 N
ATOM 4578 N TYR A 696 190.912 199.156 226.398 1.00 49.67 N
ATOM 4579 CA TYR A 696 190.409 198.120 227.294 1.00 49.67 C
ATOM 4580 C TYR A 696 191.555 197.349 227.933 1.00 49.67 C
ATOM 4581 O TYR A 696 191.502 196.998 229.116 1.00 49.67 O
ATOM 4582 CB TYR A 696 189.500 197.157 226.535 1.00 49.67 C
ATOM 4583 CG TYR A 696 188.183 197.719 226.062 1.00 49.67 C
ATOM 4584 CD1 TYR A 696 187.713 198.940 226.515 1.00 49.67 C
ATOM 4585 CD2 TYR A 696 187.399 197.007 225.167 1.00 49.67 C
ATOM 4586 CE1 TYR A 696 186.502 199.441 226.075 1.00 49.67 C
ATOM 4587 CE2 TYR A 696 186.196 197.495 224.725 1.00 49.67 C
ATOM 4588 CZ TYR A 696 185.749 198.709 225.178 1.00 49.67 C
ATOM 4589 OH TYR A 696 184.541 199.183 224.724 1.00 49.67 O
ATOM 4590 N VAL A 697 192.599 197.068 227.156 1.00 52.43 N
ATOM 4591 CA VAL A 697 193.735 196.326 227.682 1.00 52.43 C
ATOM 4592 C VAL A 697 194.497 197.162 228.702 1.00 52.43 C
ATOM 4593 O VAL A 697 194.606 196.788 229.875 1.00 52.43 O
ATOM 4594 CB VAL A 697 194.648 195.868 226.534 1.00 52.43 C
ATOM 4595 CG1 VAL A 697 195.909 195.278 227.092 1.00 52.43 C
ATOM 4596 CG2 VAL A 697 193.928 194.853 225.671 1.00 52.43 C
ATOM 4597 N GLU A 698 195.021 198.315 228.277 1.00 56.86 N
ATOM 4598 CA GLU A 698 195.924 199.075 229.135 1.00 56.86 C
ATOM 4599 C GLU A 698 195.234 199.623 230.373 1.00 56.86 C
ATOM 4600 O GLU A 698 195.815 199.590 231.464 1.00 56.86 O
ATOM 4601 CB GLU A 698 196.547 200.234 228.378 1.00 56.86 C
ATOM 4602 CG GLU A 698 197.491 201.009 229.261 1.00 56.86 C
ATOM 4603 CD GLU A 698 197.998 202.246 228.594 1.00 56.86 C
ATOM 4604 OE1 GLU A 698 197.557 202.509 227.458 1.00 56.86 O
ATOM 4605 OE2 GLU A 698 198.827 202.961 229.192 1.00 56.86 O
ATOM 4606 N ASP A 699 194.022 200.162 230.227 1.00 58.49 N
ATOM 4607 CA ASP A 699 193.303 200.718 231.371 1.00 58.49 C
ATOM 4608 C ASP A 699 193.119 199.671 232.462 1.00 58.49 C

ATOM 4609 O ASP A 699 193.048 200.000 233.650 1.00 58.49 O
ATOM 4610 CB ASP A 699 191.951 201.278 230.929 1.00 58.49 C
ATOM 4611 CG ASP A 699 191.210 201.962 232.059 1.00 58.49 C
ATOM 4612 OD1 ASP A 699 191.606 203.083 232.440 1.00 58.49 O
ATOM 4613 OD2 ASP A 699 190.235 201.378 232.573 1.00 58.49 O
ATOM 4614 N LYS A 700 193.035 198.404 232.070 1.00 59.29 N
ATOM 4615 CA LYS A 700 193.086 197.299 233.011 1.00 59.29 C
ATOM 4616 C LYS A 700 194.437 196.608 233.010 1.00 59.29 C
ATOM 4617 O LYS A 700 194.536 195.463 233.462 1.00 59.29 O
ATOM 4618 CB LYS A 700 191.953 196.332 232.694 1.00 59.29 C
ATOM 4619 CG LYS A 700 190.628 197.051 232.822 1.00 59.29 C
ATOM 4620 CD LYS A 700 189.424 196.208 232.490 1.00 59.29 C
ATOM 4621 CE LYS A 700 188.166 197.035 232.698 1.00 59.29 C
ATOM 4622 NZ LYS A 700 188.056 198.142 231.710 1.00 59.29 N
ATOM 4623 N VAL A 701 195.461 197.271 232.478 1.00 60.76 N
ATOM 4624 CA VAL A 701 196.853 196.874 232.653 1.00 60.76 C
ATOM 4625 C VAL A 701 197.399 197.491 233.929 1.00 60.76 C
ATOM 4626 O VAL A 701 198.038 196.810 234.738 1.00 60.76 O
ATOM 4627 CB VAL A 701 197.716 197.280 231.444 1.00 60.76 C
ATOM 4628 CG1 VAL A 701 199.187 197.270 231.817 1.00 60.76 C
ATOM 4629 CG2 VAL A 701 197.490 196.324 230.294 1.00 60.76 C
ATOM 4630 N VAL A 702 197.159 198.790 234.114 1.00 65.85 N
ATOM 4631 CA VAL A 702 197.748 199.495 235.243 1.00 65.85 C
ATOM 4632 C VAL A 702 197.095 199.109 236.564 1.00 65.85 C
ATOM 4633 O VAL A 702 197.689 199.321 237.627 1.00 65.85 O
ATOM 4634 CB VAL A 702 197.659 201.015 235.012 1.00 65.85 C
ATOM 4635 CG1 VAL A 702 196.208 201.465 235.004 1.00 65.85 C
ATOM 4636 CG2 VAL A 702 198.454 201.763 236.069 1.00 65.85 C
ATOM 4637 N ASP A 703 195.894 198.541 236.531 1.00 64.01 N
ATOM 4638 CA ASP A 703 195.182 198.196 237.756 1.00 64.01 C
ATOM 4639 C ASP A 703 195.705 196.922 238.415 1.00 64.01 C
ATOM 4640 O ASP A 703 196.079 196.957 239.594 1.00 64.01 O
ATOM 4641 CB ASP A 703 193.684 198.060 237.480 1.00 64.01 C
ATOM 4642 CG ASP A 703 193.015 199.396 237.233 1.00 64.01 C

ATOM 4643 OD1 ASP A 703 193.507 200.412 237.764 1.00 64.01 O
ATOM 4644 OD2 ASP A 703 191.993 199.431 236.518 1.00 64.01 O
ATOM 4645 N PRO A 704 195.747 195.784 237.712 1.00 65.82 N
ATOM 4646 CA PRO A 704 196.112 194.535 238.405 1.00 65.82 C
ATOM 4647 C PRO A 704 197.551 194.503 238.883 1.00 65.82 C
ATOM 4648 O PRO A 704 197.810 194.049 240.004 1.00 65.82 O
ATOM 4649 CB PRO A 704 195.840 193.457 237.348 1.00 65.82 C
ATOM 4650 CG PRO A 704 195.971 194.162 236.056 1.00 65.82 C
ATOM 4651 CD PRO A 704 195.449 195.549 236.290 1.00 65.82 C
ATOM 4652 N LEU A 705 198.497 194.966 238.076 1.00 74.12 N
ATOM 4653 CA LEU A 705 199.876 195.006 238.542 1.00 74.12 C
ATOM 4654 C LEU A 705 200.078 196.291 239.336 1.00 74.12 C
ATOM 4655 O LEU A 705 200.033 197.389 238.769 1.00 74.12 O
ATOM 4656 CB LEU A 705 200.854 194.888 237.369 1.00 74.12 C
ATOM 4657 CG LEU A 705 200.899 195.937 236.257 1.00 74.12 C
ATOM 4658 CD1 LEU A 705 201.907 197.032 236.566 1.00 74.12 C
ATOM 4659 CD2 LEU A 705 201.209 195.277 234.926 1.00 74.12 C
ATOM 4660 N PRO A 706 200.262 196.195 240.650 1.00 82.97 N
ATOM 4661 CA PRO A 706 200.295 197.395 241.495 1.00 82.97 C
ATOM 4662 C PRO A 706 201.506 198.255 241.191 1.00 82.97 C
ATOM 4663 O PRO A 706 202.651 197.832 241.408 1.00 82.97 O
ATOM 4664 CB PRO A 706 200.371 196.821 242.919 1.00 82.97 C
ATOM 4665 CG PRO A 706 199.839 195.430 242.798 1.00 82.97 C
ATOM 4666 CD PRO A 706 200.288 194.960 241.448 1.00 82.97 C
ATOM 4667 N PRO A 707 201.299 199.474 240.686 1.00 85.22 N
ATOM 4668 CA PRO A 707 202.442 200.384 240.530 1.00 85.22 C
ATOM 4669 C PRO A 707 203.000 200.844 241.862 1.00 85.22 C
ATOM 4670 O PRO A 707 204.209 201.086 241.976 1.00 85.22 O
ATOM 4671 CB PRO A 707 201.854 201.552 239.726 1.00 85.22 C
ATOM 4672 CG PRO A 707 200.617 200.998 239.086 1.00 85.22 C
ATOM 4673 CD PRO A 707 200.075 200.022 240.081 1.00 85.22 C
ATOM 4674 N TYR A 708 202.148 200.977 242.874 1.00 84.17 N
ATOM 4675 CA TYR A 708 202.535 201.460 244.187 1.00 84.17 C
ATOM 4676 C TYR A 708 202.245 200.400 245.243 1.00 84.17 C

ATOM 4677 O TYR A 708 201.685 199.338 244.963 1.00 84.17 O
ATOM 4678 CB TYR A 708 201.788 202.752 244.518 1.00 84.17 C
ATOM 4679 CG TYR A 708 202.071 203.883 243.567 1.00 84.17 C
ATOM 4680 CD1 TYR A 708 203.231 204.629 243.675 1.00 84.17 C
ATOM 4681 CD2 TYR A 708 201.173 204.209 242.562 1.00 84.17 C
ATOM 4682 CE1 TYR A 708 203.494 205.664 242.808 1.00 84.17 C
ATOM 4683 CE2 TYR A 708 201.425 205.244 241.690 1.00 84.17 C
ATOM 4684 CZ TYR A 708 202.587 205.969 241.817 1.00 84.17 C
ATOM 4685 OH TYR A 708 202.847 207.004 240.949 1.00 84.17 O
ATOM 4686 N LEU A 709 202.635 200.695 246.476 1.00 84.82 N
ATOM 4687 CA LEU A 709 202.162 199.940 247.624 1.00 84.82 C
ATOM 4688 C LEU A 709 200.924 200.634 248.192 1.00 84.82 C
ATOM 4689 O LEU A 709 200.297 201.466 247.532 1.00 84.82 O
ATOM 4690 CB LEU A 709 203.279 199.754 248.650 1.00 84.82 C
ATOM 4691 CG LEU A 709 204.023 200.952 249.232 1.00 84.82 C
ATOM 4692 CD1 LEU A 709 203.227 201.609 250.339 1.00 84.82 C
ATOM 4693 CD2 LEU A 709 205.366 200.479 249.760 1.00 84.82 C
ATOM 4694 N LYS A 710 200.544 200.261 249.416 1.00 85.04 N
ATOM 4695 CA LYS A 710 199.320 200.766 250.034 1.00 85.04 C
ATOM 4696 C LYS A 710 199.294 202.292 250.088 1.00 85.04 C
ATOM 4697 O LYS A 710 198.350 202.928 249.607 1.00 85.04 O
ATOM 4698 CB LYS A 710 199.182 200.179 251.440 1.00 85.04 C
ATOM 4699 CG LYS A 710 197.923 200.593 252.184 1.00 85.04 C
ATOM 4700 CD LYS A 710 197.844 199.911 253.542 1.00 85.04 C
ATOM 4701 CE LYS A 710 198.582 200.714 254.600 1.00 85.04 C
ATOM 4702 NZ LYS A 710 200.040 200.424 254.598 1.00 85.04 N
ATOM 4703 N GLY A 711 200.327 202.894 250.669 1.00 81.11 N
ATOM 4704 CA GLY A 711 200.295 204.296 251.039 1.00 81.11 C
ATOM 4705 C GLY A 711 200.084 205.338 249.957 1.00 81.11 C
ATOM 4706 O GLY A 711 199.038 205.994 249.937 1.00 81.11 O
ATOM 4707 N LEU A 712 201.069 205.499 249.064 1.00 77.32 N
ATOM 4708 CA LEU A 712 201.238 206.682 248.216 1.00 77.32 C
ATOM 4709 C LEU A 712 199.975 207.214 247.548 1.00 77.32 C
ATOM 4710 O LEU A 712 199.777 208.432 247.486 1.00 77.32 O

ATOM 4711 CB LEU A 712 202.280 206.414 247.129 1.00 77.32 C
ATOM 4712 CG LEU A 712 203.749 206.605 247.501 1.00 77.32 C
ATOM 4713 CD1 LEU A 712 204.239 205.473 248.380 1.00 77.32 C
ATOM 4714 CD2 LEU A 712 204.602 206.722 246.251 1.00 77.32 C
ATOM 4715 N ASP A 713 199.117 206.328 247.041 1.00 81.30 N
ATOM 4716 CA ASP A 713 197.922 206.794 246.348 1.00 81.30 C
ATOM 4717 C ASP A 713 196.993 207.580 247.263 1.00 81.30 C
ATOM 4718 O ASP A 713 196.176 208.366 246.771 1.00 81.30 O
ATOM 4719 CB ASP A 713 197.175 205.615 245.730 1.00 81.30 C
ATOM 4720 CG ASP A 713 196.046 206.057 244.825 1.00 81.30 C
ATOM 4721 OD1 ASP A 713 196.335 206.539 243.709 1.00 81.30 O
ATOM 4722 OD2 ASP A 713 194.872 205.927 245.227 1.00 81.30 O
ATOM 4723 N ASP A 714 197.098 207.390 248.577 1.00 79.96 N
ATOM 4724 CA ASP A 714 196.354 208.189 249.539 1.00 79.96 C
ATOM 4725 C ASP A 714 197.057 209.492 249.894 1.00 79.96 C
ATOM 4726 O ASP A 714 196.445 210.352 250.535 1.00 79.96 O
ATOM 4727 CB ASP A 714 196.107 207.384 250.818 1.00 79.96 C
ATOM 4728 CG ASP A 714 195.157 206.223 250.600 1.00 79.96 C
ATOM 4729 OD1 ASP A 714 194.293 206.321 249.704 1.00 79.96 O
ATOM 4730 OD2 ASP A 714 195.276 205.212 251.324 1.00 79.96 O
ATOM 4731 N LEU A 715 198.320 209.653 249.505 1.00 75.66 N
ATOM 4732 CA LEU A 715 199.066 210.882 249.743 1.00 75.66 C
ATOM 4733 C LEU A 715 199.031 211.829 248.555 1.00 75.66 C
ATOM 4734 O LEU A 715 198.850 213.036 248.738 1.00 75.66 O
ATOM 4735 CB LEU A 715 200.523 210.560 250.098 1.00 75.66 C
ATOM 4736 CG LEU A 715 201.428 211.705 250.560 1.00 75.66 C
ATOM 4737 CD1 LEU A 715 202.474 211.182 251.522 1.00 75.66 C
ATOM 4738 CD2 LEU A 715 202.105 212.383 249.385 1.00 75.66 C
ATOM 4739 N MET A 716 199.201 211.308 247.338 1.00 76.20 N
ATOM 4740 CA MET A 716 199.159 212.158 246.155 1.00 76.20 C
ATOM 4741 C MET A 716 197.783 212.773 245.947 1.00 76.20 C
ATOM 4742 O MET A 716 197.672 213.801 245.271 1.00 76.20 O
ATOM 4743 CB MET A 716 199.585 211.353 244.924 1.00 76.20 C
ATOM 4744 CG MET A 716 199.671 212.148 243.629 1.00 76.20 C

ATOM 4745 SD MET A 716 198.148 212.161 242.666 1.00 76.20 S
ATOM 4746 CE MET A 716 198.586 213.311 241.364 1.00 76.20 C
ATOM 4747 N SER A 717 196.736 212.174 246.513 1.00 76.90 N
ATOM 4748 CA SER A 717 195.408 212.774 246.539 1.00 76.90 C
ATOM 4749 C SER A 717 195.173 213.585 247.806 1.00 76.90 C
ATOM 4750 O SER A 717 194.643 214.697 247.743 1.00 76.90 O
ATOM 4751 CB SER A 717 194.331 211.693 246.403 1.00 76.90 C
ATOM 4752 OG SER A 717 193.037 212.266 246.456 1.00 76.90 O
ATOM 4753 N GLY A 718 195.562 213.047 248.965 1.00 75.70 N
ATOM 4754 CA GLY A 718 195.498 213.813 250.196 1.00 75.70 C
ATOM 4755 C GLY A 718 196.366 215.052 250.180 1.00 75.70 C
ATOM 4756 O GLY A 718 196.106 215.993 250.937 1.00 75.70 O
ATOM 4757 N LEU A 719 197.401 215.069 249.341 1.00 74.70 N
ATOM 4758 CA LEU A 719 198.176 216.272 249.081 1.00 74.70 C
ATOM 4759 C LEU A 719 197.799 216.931 247.763 1.00 74.70 C
ATOM 4760 O LEU A 719 198.035 218.132 247.598 1.00 74.70 O
ATOM 4761 CB LEU A 719 199.677 215.943 249.084 1.00 74.70 C
ATOM 4762 CG LEU A 719 200.722 217.065 249.102 1.00 74.70 C
ATOM 4763 CD1 LEU A 719 200.941 217.684 247.730 1.00 74.70 C
ATOM 4764 CD2 LEU A 719 200.330 218.129 250.112 1.00 74.70 C
ATOM 4765 N GLY A 720 197.192 216.186 246.842 1.00 78.79 N
ATOM 4766 CA GLY A 720 196.868 216.697 245.525 1.00 78.79 C
ATOM 4767 C GLY A 720 195.647 217.592 245.461 1.00 78.79 C
ATOM 4768 O GLY A 720 195.047 217.750 244.393 1.00 78.79 O
ATOM 4769 N ALA A 721 195.262 218.178 246.593 1.00 82.38 N
ATOM 4770 CA ALA A 721 194.187 219.159 246.638 1.00 82.38 C
ATOM 4771 C ALA A 721 194.717 220.553 246.945 1.00 82.38 C
ATOM 4772 O ALA A 721 194.479 221.491 246.180 1.00 82.38 O
ATOM 4773 CB ALA A 721 193.133 218.745 247.674 1.00 82.38 C
ATOM 4774 N ALA A 722 195.444 220.708 248.050 1.00 82.34 N
ATOM 4775 CA ALA A 722 196.051 221.981 248.415 1.00 82.34 C
ATOM 4776 C ALA A 722 196.913 221.804 249.657 1.00 82.34 C
ATOM 4777 O ALA A 722 196.665 220.901 250.462 1.00 82.34 O
ATOM 4778 CB ALA A 722 194.980 223.047 248.655 1.00 82.34 C

ATOM 4779 N GLY A 723 197.923 222.653 249.828 1.00 81.50 N
ATOM 4780 CA GLY A 723 198.754 222.546 251.008 1.00 81.50 C
ATOM 4781 C GLY A 723 200.050 223.331 250.994 1.00 81.50 C
ATOM 4782 O GLY A 723 200.727 223.439 249.968 1.00 81.50 O
ATOM 4783 N LYS A 724 200.393 223.881 252.154 1.00 78.87 N
ATOM 4784 CA LYS A 724 201.688 224.498 252.402 1.00 78.87 C
ATOM 4785 C LYS A 724 202.684 223.366 252.683 1.00 78.87 C
ATOM 4786 O LYS A 724 202.412 222.196 252.402 1.00 78.87 O
ATOM 4787 CB LYS A 724 201.544 225.525 253.531 1.00 78.87 C
ATOM 4788 CG LYS A 724 202.765 226.385 253.868 1.00 78.87 C
ATOM 4789 CD LYS A 724 203.126 227.346 252.753 1.00 78.87 C
ATOM 4790 CE LYS A 724 204.289 228.232 253.171 1.00 78.87 C
ATOM 4791 NZ LYS A 724 204.731 229.134 252.074 1.00 78.87 N
ATOM 4792 N ALA A 725 203.860 223.691 253.231 1.00 73.22 N
ATOM 4793 CA ALA A 725 204.824 222.671 253.636 1.00 73.22 C
ATOM 4794 C ALA A 725 204.253 221.676 254.644 1.00 73.22 C
ATOM 4795 O ALA A 725 204.839 220.604 254.834 1.00 73.22 O
ATOM 4796 CB ALA A 725 206.073 223.334 254.217 1.00 73.22 C
ATOM 4797 N VAL A 726 203.134 222.004 255.300 1.00 70.41 N
ATOM 4798 CA VAL A 726 202.421 221.029 256.120 1.00 70.41 C
ATOM 4799 C VAL A 726 202.037 219.807 255.299 1.00 70.41 C
ATOM 4800 O VAL A 726 201.969 218.691 255.827 1.00 70.41 O
ATOM 4801 CB VAL A 726 201.182 221.680 256.761 1.00 70.41 C
ATOM 4802 CG1 VAL A 726 201.597 222.835 257.656 1.00 70.41 C
ATOM 4803 CG2 VAL A 726 200.218 222.149 255.686 1.00 70.41 C
ATOM 4804 N GLY A 727 201.779 219.988 254.005 1.00 67.34 N
ATOM 4805 CA GLY A 727 201.500 218.872 253.123 1.00 67.34 C
ATOM 4806 C GLY A 727 202.749 218.138 252.679 1.00 67.34 C
ATOM 4807 O GLY A 727 202.678 217.216 251.862 1.00 67.34 O
ATOM 4808 N VAL A 728 203.901 218.545 253.207 1.00 65.96 N
ATOM 4809 CA VAL A 728 205.158 217.847 252.969 1.00 65.96 C
ATOM 4810 C VAL A 728 205.683 217.344 254.304 1.00 65.96 C
ATOM 4811 O VAL A 728 206.398 216.339 254.366 1.00 65.96 O
ATOM 4812 CB VAL A 728 206.187 218.754 252.273 1.00 65.96 C

ATOM 4813 CG1 VAL A 728 207.527 218.049 252.170 1.00 65.96 C
ATOM 4814 CG2 VAL A 728 205.687 219.153 250.898 1.00 65.96 C
ATOM 4815 N ALA A 729 205.327 218.041 255.384 1.00 63.33 N
ATOM 4816 CA ALA A 729 205.669 217.555 256.715 1.00 63.33 C
ATOM 4817 C ALA A 729 204.953 216.246 257.015 1.00 63.33 C
ATOM 4818 O ALA A 729 205.526 215.341 257.632 1.00 63.33 O
ATOM 4819 CB ALA A 729 205.329 218.610 257.767 1.00 63.33 C
ATOM 4820 N ILE A 730 203.692 216.131 256.589 1.00 64.36 N
ATOM 4821 CA ILE A 730 202.969 214.873 256.731 1.00 64.36 C
ATOM 4822 C ILE A 730 203.645 213.771 255.930 1.00 64.36 C
ATOM 4823 O ILE A 730 203.579 212.593 256.299 1.00 64.36 O
ATOM 4824 CB ILE A 730 201.498 215.053 256.314 1.00 64.36 C
ATOM 4825 CG1 ILE A 730 200.796 216.031 257.256 1.00 64.36 C
ATOM 4826 CG2 ILE A 730 200.783 213.716 256.302 1.00 64.36 C
ATOM 4827 CD1 ILE A 730 199.428 216.459 256.780 1.00 64.36 C
ATOM 4828 N GLY A 731 204.306 214.127 254.829 1.00 62.92 N
ATOM 4829 CA GLY A 731 205.053 213.153 254.056 1.00 62.92 C
ATOM 4830 C GLY A 731 206.306 212.639 254.732 1.00 62.92 C
ATOM 4831 O GLY A 731 206.946 211.729 254.195 1.00 62.92 O
ATOM 4832 N ALA A 732 206.675 213.198 255.884 1.00 63.41 N
ATOM 4833 CA ALA A 732 207.832 212.724 256.635 1.00 63.41 C
ATOM 4834 C ALA A 732 207.425 211.700 257.691 1.00 63.41 C
ATOM 4835 O ALA A 732 207.917 210.567 257.688 1.00 63.41 O
ATOM 4836 CB ALA A 732 208.562 213.906 257.282 1.00 63.41 C
ATOM 4837 N VAL A 733 206.530 212.089 258.603 1.00 63.36 N
ATOM 4838 CA VAL A 733 206.040 211.148 259.607 1.00 63.36 C
ATOM 4839 C VAL A 733 205.305 209.996 258.938 1.00 63.36 C
ATOM 4840 O VAL A 733 205.376 208.847 259.391 1.00 63.36 O
ATOM 4841 CB VAL A 733 205.150 211.872 260.634 1.00 63.36 C
ATOM 4842 CG1 VAL A 733 205.966 212.888 261.410 1.00 63.36 C
ATOM 4843 CG2 VAL A 733 203.984 212.549 259.939 1.00 63.36 C
ATOM 4844 N GLY A 734 204.585 210.282 257.853 1.00 64.15 N
ATOM 4845 CA GLY A 734 203.983 209.213 257.078 1.00 64.15 C
ATOM 4846 C GLY A 734 205.009 208.273 256.482 1.00 64.15 C

ATOM 4847 O GLY A 734 204.751 207.076 256.338 1.00 64.15 O
ATOM 4848 N GLY A 735 206.186 208.795 256.136 1.00 65.06 N
ATOM 4849 CA GLY A 735 207.211 207.952 255.543 1.00 65.06 C
ATOM 4850 C GLY A 735 207.748 206.913 256.507 1.00 65.06 C
ATOM 4851 O GLY A 735 208.011 205.771 256.119 1.00 65.06 O
ATOM 4852 N ALA A 736 207.922 207.290 257.773 1.00 64.23 N
ATOM 4853 CA ALA A 736 208.463 206.355 258.754 1.00 64.23 C
ATOM 4854 C ALA A 736 207.456 205.262 259.083 1.00 64.23 C
ATOM 4855 O ALA A 736 207.786 204.071 259.055 1.00 64.23 O
ATOM 4856 CB ALA A 736 208.880 207.104 260.019 1.00 64.23 C
ATOM 4857 N VAL A 737 206.218 205.649 259.400 1.00 62.02 N
ATOM 4858 CA VAL A 737 205.207 204.668 259.781 1.00 62.02 C
ATOM 4859 C VAL A 737 204.880 203.739 258.622 1.00 62.02 C
ATOM 4860 O VAL A 737 204.500 202.581 258.834 1.00 62.02 O
ATOM 4861 CB VAL A 737 203.945 205.378 260.301 1.00 62.02 C
ATOM 4862 CG1 VAL A 737 203.295 206.175 259.189 1.00 62.02 C
ATOM 4863 CG2 VAL A 737 202.974 204.365 260.862 1.00 62.02 C
ATOM 4864 N ALA A 738 205.024 204.214 257.386 1.00 63.72 N
ATOM 4865 CA ALA A 738 204.755 203.369 256.230 1.00 63.72 C
ATOM 4866 C ALA A 738 205.830 202.319 255.999 1.00 63.72 C
ATOM 4867 O ALA A 738 205.677 201.498 255.089 1.00 63.72 O
ATOM 4868 CB ALA A 738 204.597 204.227 254.975 1.00 63.72 C
ATOM 4869 N SER A 739 206.909 202.327 256.781 1.00 68.24 N
ATOM 4870 CA SER A 739 207.918 201.281 256.717 1.00 68.24 C
ATOM 4871 C SER A 739 207.781 200.256 257.833 1.00 68.24 C
ATOM 4872 O SER A 739 208.281 199.136 257.689 1.00 68.24 O
ATOM 4873 CB SER A 739 209.323 201.891 256.766 1.00 68.24 C
ATOM 4874 OG SER A 739 210.318 200.883 256.738 1.00 68.24 O
ATOM 4875 N VAL A 740 207.123 200.613 258.932 1.00 69.30 N
ATOM 4876 CA VAL A 740 206.864 199.672 260.017 1.00 69.30 C
ATOM 4877 C VAL A 740 205.537 198.954 259.819 1.00 69.30 C
ATOM 4878 O VAL A 740 205.441 197.740 260.011 1.00 69.30 O
ATOM 4879 CB VAL A 740 206.911 200.403 261.374 1.00 69.30 C
ATOM 4880 CG1 VAL A 740 206.470 199.474 262.487 1.00 69.30 C

ATOM 4881 CG2 VAL A 740 208.312 200.922 261.642 1.00 69.30 C
ATOM 4882 N VAL A 741 204.492 199.690 259.434 1.00 66.98 N
ATOM 4883 CA VAL A 741 203.201 199.060 259.174 1.00 66.98 C
ATOM 4884 C VAL A 741 203.288 198.131 257.973 1.00 66.98 C
ATOM 4885 O VAL A 741 202.517 197.170 257.864 1.00 66.98 O
ATOM 4886 CB VAL A 741 202.112 200.131 258.985 1.00 66.98 C
ATOM 4887 CG1 VAL A 741 200.803 199.489 258.568 1.00 66.98 C
ATOM 4888 CG2 VAL A 741 201.930 200.918 260.268 1.00 66.98 C
ATOM 4889 N GLU A 742 204.220 198.391 257.057 1.00 74.51 N
ATOM 4890 CA GLU A 742 204.485 197.438 255.987 1.00 74.51 C
ATOM 4891 C GLU A 742 205.384 196.305 256.458 1.00 74.51 C
ATOM 4892 O GLU A 742 205.300 195.191 255.930 1.00 74.51 O
ATOM 4893 CB GLU A 742 205.113 198.145 254.788 1.00 74.51 C
ATOM 4894 CG GLU A 742 204.172 199.098 254.076 1.00 74.51 C
ATOM 4895 CD GLU A 742 203.014 198.379 253.416 1.00 74.51 C
ATOM 4896 OE1 GLU A 742 203.197 197.218 252.994 1.00 74.51 O
ATOM 4897 OE2 GLU A 742 201.921 198.975 253.315 1.00 74.51 O
ATOM 4898 N GLY A 743 206.243 196.568 257.442 1.00 74.66 N
ATOM 4899 CA GLY A 743 207.048 195.519 258.039 1.00 74.66 C
ATOM 4900 C GLY A 743 206.268 194.548 258.897 1.00 74.66 C
ATOM 4901 O GLY A 743 206.790 193.474 259.215 1.00 74.66 O
ATOM 4902 N VAL A 744 205.040 194.894 259.276 1.00 68.15 N
ATOM 4903 CA VAL A 744 204.174 193.998 260.026 1.00 68.15 C
ATOM 4904 C VAL A 744 202.957 193.595 259.195 1.00 68.15 C
ATOM 4905 O VAL A 744 201.940 193.184 259.737 1.00 68.15 O
ATOM 4906 CB VAL A 744 203.753 194.626 261.370 1.00 68.15 C
ATOM 4907 CG1 VAL A 744 202.720 195.721 261.152 1.00 68.15 C
ATOM 4908 CG2 VAL A 744 203.252 193.562 262.338 1.00 68.15 C
ATOM 4909 N ALA A 745 203.055 193.721 257.873 1.00 69.18 N
ATOM 4910 CA ALA A 745 202.022 193.242 256.967 1.00 69.18 C
ATOM 4911 C ALA A 745 202.426 191.989 256.213 1.00 69.18 C
ATOM 4912 O ALA A 745 201.556 191.202 255.838 1.00 69.18 O
ATOM 4913 CB ALA A 745 201.646 194.330 255.954 1.00 69.18 C
ATOM 4914 N THR A 746 203.725 191.786 255.985 1.00 69.69 N

ATOM 4915 CA THR A 746 204.199 190.507 255.476 1.00 69.69 C
ATOM 4916 C THR A 746 204.073 189.414 256.525 1.00 69.69 C
ATOM 4917 O THR A 746 204.031 188.230 256.176 1.00 69.69 O
ATOM 4918 CB THR A 746 205.651 190.631 255.012 1.00 69.69 C
ATOM 4919 OG1 THR A 746 205.745 191.644 254.004 1.00 69.69 O
ATOM 4920 CG2 THR A 746 206.145 189.316 254.434 1.00 69.69 C
ATOM 4921 N PHE A 747 203.997 189.791 257.801 1.00 62.61 N
ATOM 4922 CA PHE A 747 203.760 188.844 258.879 1.00 62.61 C
ATOM 4923 C PHE A 747 202.347 188.278 258.852 1.00 62.61 C
ATOM 4924 O PHE A 747 202.091 187.259 259.502 1.00 62.61 O
ATOM 4925 CB PHE A 747 204.040 189.532 260.218 1.00 62.61 C
ATOM 4926 CG PHE A 747 203.948 188.624 261.407 1.00 62.61 C
ATOM 4927 CD1 PHE A 747 204.958 187.723 261.687 1.00 62.61 C
ATOM 4928 CD2 PHE A 747 202.856 188.682 262.254 1.00 62.61 C
ATOM 4929 CE1 PHE A 747 204.878 186.892 262.784 1.00 62.61 C
ATOM 4930 CE2 PHE A 747 202.770 187.853 263.352 1.00 62.61 C
ATOM 4931 CZ PHE A 747 203.782 186.956 263.617 1.00 62.61 C
ATOM 4932 N LEU A 748 201.431 188.898 258.105 1.00 64.92 N
ATOM 4933 CA LEU A 748 200.066 188.410 257.956 1.00 64.92 C
ATOM 4934 C LEU A 748 199.841 187.723 256.614 1.00 64.92 C
ATOM 4935 O LEU A 748 198.726 187.741 256.083 1.00 64.92 O
ATOM 4936 CB LEU A 748 199.067 189.551 258.138 1.00 64.92 C
ATOM 4937 CG LEU A 748 198.967 190.153 259.538 1.00 64.92 C
ATOM 4938 CD1 LEU A 748 198.019 191.339 259.541 1.00 64.92 C
ATOM 4939 CD2 LEU A 748 198.514 189.100 260.529 1.00 64.92 C
ATOM 4940 N LYS A 749 200.883 187.118 256.053 1.00 68.93 N
ATOM 4941 CA LYS A 749 200.754 186.300 254.856 1.00 68.93 C
ATOM 4942 C LYS A 749 201.344 184.912 255.010 1.00 68.93 C
ATOM 4943 O LYS A 749 200.887 183.990 254.323 1.00 68.93 O
ATOM 4944 CB LYS A 749 201.411 186.993 253.654 1.00 68.93 C
ATOM 4945 CG LYS A 749 200.769 188.317 253.296 1.00 68.93 C
ATOM 4946 CD LYS A 749 199.362 188.102 252.771 1.00 68.93 C
ATOM 4947 CE LYS A 749 198.694 189.419 252.424 1.00 68.93 C
ATOM 4948 NZ LYS A 749 199.330 190.071 251.248 1.00 68.93 N

ATOM 4949 N ASN A 750 202.328 184.730 255.872 1.00 70.45 N
ATOM 4950 CA ASN A 750 202.788 183.410 256.257 1.00 70.45 C
ATOM 4951 C ASN A 750 201.724 182.767 257.131 1.00 70.45 C
ATOM 4952 O ASN A 750 201.475 183.262 258.239 1.00 70.45 O
ATOM 4953 CB ASN A 750 204.106 183.515 257.011 1.00 70.45 C
ATOM 4954 CG ASN A 750 205.234 184.001 256.135 1.00 70.45 C
ATOM 4955 OD1 ASN A 750 205.401 183.543 255.006 1.00 70.45 O
ATOM 4956 ND2 ASN A 750 206.002 184.955 256.640 1.00 70.45 N
ATOM 4957 N PRO A 751 201.077 181.683 256.697 1.00 72.07 N
ATOM 4958 CA PRO A 751 199.971 181.116 257.487 1.00 72.07 C
ATOM 4959 C PRO A 751 200.371 180.615 258.869 1.00 72.07 C
ATOM 4960 O PRO A 751 199.483 180.245 259.646 1.00 72.07 O
ATOM 4961 CB PRO A 751 199.466 179.967 256.605 1.00 72.07 C
ATOM 4962 CG PRO A 751 199.873 180.357 255.221 1.00 72.07 C
ATOM 4963 CD PRO A 751 201.198 181.041 255.379 1.00 72.07 C
ATOM 4964 N PHE A 752 201.662 180.589 259.202 1.00 70.60 N
ATOM 4965 CA PHE A 752 202.064 180.343 260.581 1.00 70.60 C
ATOM 4966 C PHE A 752 201.888 181.593 261.433 1.00 70.60 C
ATOM 4967 O PHE A 752 201.327 181.527 262.532 1.00 70.60 O
ATOM 4968 CB PHE A 752 203.517 179.873 260.630 1.00 70.60 C
ATOM 4969 CG PHE A 752 203.740 178.518 260.027 1.00 70.60 C
ATOM 4970 CD1 PHE A 752 202.683 177.651 259.821 1.00 70.60 C
ATOM 4971 CD2 PHE A 752 205.009 178.118 259.652 1.00 70.60 C
ATOM 4972 CE1 PHE A 752 202.890 176.409 259.263 1.00 70.60 C
ATOM 4973 CE2 PHE A 752 205.222 176.879 259.092 1.00 70.60 C
ATOM 4974 CZ PHE A 752 204.161 176.023 258.897 1.00 70.60 C
ATOM 4975 N GLY A 753 202.357 182.738 260.936 1.00 68.31 N
ATOM 4976 CA GLY A 753 202.240 183.971 261.697 1.00 68.31 C
ATOM 4977 C GLY A 753 200.801 184.399 261.911 1.00 68.31 C
ATOM 4978 O GLY A 753 200.430 184.827 263.008 1.00 68.31 O
ATOM 4979 N ALA A 754 199.974 184.303 260.867 1.00 66.78 N
ATOM 4980 CA ALA A 754 198.560 184.632 261.011 1.00 66.78 C
ATOM 4981 C ALA A 754 197.883 183.739 262.040 1.00 66.78 C
ATOM 4982 O ALA A 754 196.919 184.159 262.690 1.00 66.78 O

ATOM 4983 CB ALA A 754 197.852 184.521 259.662 1.00 66.78 C
ATOM 4984 N PHE A 755 198.369 182.509 262.200 1.00 65.16 N
ATOM 4985 CA PHE A 755 197.884 181.634 263.257 1.00 65.16 C
ATOM 4986 C PHE A 755 198.465 181.995 264.616 1.00 65.16 C
ATOM 4987 O PHE A 755 197.847 181.690 265.641 1.00 65.16 O
ATOM 4988 CB PHE A 755 198.218 180.181 262.920 1.00 65.16 C
ATOM 4989 CG PHE A 755 197.695 179.189 263.914 1.00 65.16 C
ATOM 4990 CD1 PHE A 755 196.357 178.844 263.927 1.00 65.16 C
ATOM 4991 CD2 PHE A 755 198.544 178.596 264.829 1.00 65.16 C
ATOM 4992 CE1 PHE A 755 195.875 177.928 264.838 1.00 65.16 C
ATOM 4993 CE2 PHE A 755 198.067 177.679 265.741 1.00 65.16 C
ATOM 4994 CZ PHE A 755 196.731 177.345 265.747 1.00 65.16 C
ATOM 4995 N THR A 756 199.630 182.642 264.647 1.00 67.13 N
ATOM 4996 CA THR A 756 200.246 183.065 265.896 1.00 67.13 C
ATOM 4997 C THR A 756 199.655 184.357 266.442 1.00 67.13 C
ATOM 4998 O THR A 756 199.976 184.736 267.573 1.00 67.13 O
ATOM 4999 CB THR A 756 201.756 183.240 265.712 1.00 67.13 C
ATOM 5000 OG1 THR A 756 202.004 184.229 264.706 1.00 67.13 O
ATOM 5001 CG2 THR A 756 202.397 181.926 265.298 1.00 67.13 C
ATOM 5002 N ILE A 757 198.814 185.038 265.672 1.00 66.85 N
ATOM 5003 CA ILE A 757 198.065 186.187 266.160 1.00 66.85 C
ATOM 5004 C ILE A 757 196.658 185.793 266.584 1.00 66.85 C
ATOM 5005 O ILE A 757 196.139 186.309 267.574 1.00 66.85 O
ATOM 5006 CB ILE A 757 198.030 187.303 265.096 1.00 66.85 C
ATOM 5007 CG1 ILE A 757 199.431 187.874 264.876 1.00 66.85 C
ATOM 5008 CG2 ILE A 757 197.051 188.390 265.499 1.00 66.85 C
ATOM 5009 CD1 ILE A 757 199.531 188.809 263.693 1.00 66.85 C
ATOM 5010 N ILE A 758 196.030 184.877 265.844 1.00 66.66 N
ATOM 5011 CA ILE A 758 194.695 184.421 266.211 1.00 66.66 C
ATOM 5012 C ILE A 758 194.726 183.679 267.540 1.00 66.66 C
ATOM 5013 O ILE A 758 193.733 183.670 268.277 1.00 66.66 O
ATOM 5014 CB ILE A 758 194.104 183.554 265.087 1.00 66.66 C
ATOM 5015 CG1 ILE A 758 193.940 184.385 263.815 1.00 66.66 C
ATOM 5016 CG2 ILE A 758 192.773 182.966 265.512 1.00 66.66 C

ATOM 5017 CD1 ILE A 758 193.607 183.570 262.593 1.00 66.66 C
ATOM 5018 N LEU A 759 195.854 183.049 267.874 1.00 66.82 N
ATOM 5019 CA LEU A 759 195.990 182.436 269.191 1.00 66.82 C
ATOM 5020 C LEU A 759 196.077 183.497 270.279 1.00 66.82 C
ATOM 5021 O LEU A 759 195.410 183.395 271.315 1.00 66.82 O
ATOM 5022 CB LEU A 759 197.220 181.531 269.230 1.00 66.82 C
ATOM 5023 CG LEU A 759 197.197 180.265 268.376 1.00 66.82 C
ATOM 5024 CD1 LEU A 759 198.546 179.572 268.444 1.00 66.82 C
ATOM 5025 CD2 LEU A 759 196.091 179.334 268.837 1.00 66.82 C
ATOM 5026 N VAL A 760 196.904 184.523 270.063 1.00 66.74 N
ATOM 5027 CA VAL A 760 197.085 185.562 271.072 1.00 66.74 C
ATOM 5028 C VAL A 760 195.788 186.314 271.321 1.00 66.74 C
ATOM 5029 O VAL A 760 195.493 186.697 272.459 1.00 66.74 O
ATOM 5030 CB VAL A 760 198.215 186.520 270.652 1.00 66.74 C
ATOM 5031 CG1 VAL A 760 198.321 187.669 271.636 1.00 66.74 C
ATOM 5032 CG2 VAL A 760 199.532 185.772 270.553 1.00 66.74 C
ATOM 5033 N ALA A 761 194.993 186.539 270.274 1.00 70.33 N
ATOM 5034 CA ALA A 761 193.733 187.253 270.449 1.00 70.33 C
ATOM 5035 C ALA A 761 192.735 186.427 271.249 1.00 70.33 C
ATOM 5036 O ALA A 761 192.052 186.956 272.134 1.00 70.33 O
ATOM 5037 CB ALA A 761 193.150 187.633 269.089 1.00 70.33 C
ATOM 5038 N ILE A 762 192.632 185.131 270.948 1.00 67.87 N
ATOM 5039 CA ILE A 762 191.694 184.272 271.663 1.00 67.87 C
ATOM 5040 C ILE A 762 192.071 184.174 273.135 1.00 67.87 C
ATOM 5041 O ILE A 762 191.199 184.132 274.011 1.00 67.87 O
ATOM 5042 CB ILE A 762 191.632 182.885 271.002 1.00 67.87 C
ATOM 5043 CG1 ILE A 762 191.073 182.997 269.583 1.00 67.87 C
ATOM 5044 CG2 ILE A 762 190.795 181.935 271.837 1.00 67.87 C
ATOM 5045 CD1 ILE A 762 191.215 181.730 268.771 1.00 67.87 C
ATOM 5046 N ALA A 763 193.370 184.132 273.432 1.00 72.04 N
ATOM 5047 CA ALA A 763 193.808 184.064 274.820 1.00 72.04 C
ATOM 5048 C ALA A 763 193.502 185.342 275.588 1.00 72.04 C
ATOM 5049 O ALA A 763 193.336 185.287 276.810 1.00 72.04 O
ATOM 5050 CB ALA A 763 195.306 183.765 274.886 1.00 72.04 C

ATOM 5051 N VAL A 764 193.423 186.483 274.902 1.00 74.11 N
ATOM 5052 CA VAL A 764 193.160 187.752 275.579 1.00 74.11 C
ATOM 5053 C VAL A 764 191.794 187.724 276.254 1.00 74.11 C
ATOM 5054 O VAL A 764 191.666 188.002 277.452 1.00 74.11 O
ATOM 5055 CB VAL A 764 193.269 188.925 274.591 1.00 74.11 C
ATOM 5056 CG1 VAL A 764 192.798 190.208 275.248 1.00 74.11 C
ATOM 5057 CG2 VAL A 764 194.701 189.075 274.110 1.00 74.11 C
ATOM 5058 N VAL A 765 190.752 187.398 275.487 1.00 76.69 N
ATOM 5059 CA VAL A 765 189.399 187.387 276.035 1.00 76.69 C
ATOM 5060 C VAL A 765 189.264 186.339 277.130 1.00 76.69 C
ATOM 5061 O VAL A 765 188.490 186.516 278.079 1.00 76.69 O
ATOM 5062 CB VAL A 765 188.371 187.163 274.909 1.00 76.69 C
ATOM 5063 CG1 VAL A 765 186.969 187.061 275.484 1.00 76.69 C
ATOM 5064 CG2 VAL A 765 188.454 188.287 273.887 1.00 76.69 C
ATOM 5065 N ILE A 766 190.010 185.237 277.026 1.00 77.40 N
ATOM 5066 CA ILE A 766 189.963 184.213 278.064 1.00 77.40 C
ATOM 5067 C ILE A 766 190.579 184.733 279.357 1.00 77.40 C
ATOM 5068 O ILE A 766 190.099 184.427 280.455 1.00 77.40 O
ATOM 5069 CB ILE A 766 190.657 182.928 277.580 1.00 77.40 C
ATOM 5070 CG1 ILE A 766 189.905 182.338 276.387 1.00 77.40 C
ATOM 5071 CG2 ILE A 766 190.748 181.917 278.709 1.00 77.40 C
ATOM 5072 CD1 ILE A 766 190.649 181.221 275.691 1.00 77.40 C
ATOM 5073 N ILE A 767 191.651 185.523 279.252 1.00 79.63 N
ATOM 5074 CA ILE A 767 192.270 186.104 280.437 1.00 79.63 C
ATOM 5075 C ILE A 767 191.327 187.064 281.145 1.00 79.63 C
ATOM 5076 O ILE A 767 191.470 187.297 282.350 1.00 79.63 O
ATOM 5077 CB ILE A 767 193.594 186.800 280.059 1.00 79.63 C
ATOM 5078 CG1 ILE A 767 194.571 185.789 279.459 1.00 79.63 C
ATOM 5079 CG2 ILE A 767 194.217 187.468 281.271 1.00 79.63 C
ATOM 5080 CD1 ILE A 767 194.944 184.671 280.404 1.00 79.63 C
ATOM 5081 N ILE A 768 190.357 187.631 280.424 1.00 82.28 N
ATOM 5082 CA ILE A 768 189.336 188.451 281.067 1.00 82.28 C
ATOM 5083 C ILE A 768 188.542 187.622 282.066 1.00 82.28 C
ATOM 5084 O ILE A 768 188.142 188.114 283.128 1.00 82.28 O

ATOM 5085 CB ILE A 768 188.417 189.087 280.008 1.00 82.28 C
ATOM 5086 CG1 ILE A 768 189.226 189.970 279.058 1.00 82.28 C
ATOM 5087 CG2 ILE A 768 187.310 189.882 280.676 1.00 82.28 C
ATOM 5088 CD1 ILE A 768 189.911 191.130 279.742 1.00 82.28 C
ATOM 5089 N TYR A 769 188.306 186.354 281.746 1.00 89.52 N
ATOM 5090 CA TYR A 769 187.526 185.473 282.604 1.00 89.52 C
ATOM 5091 C TYR A 769 188.275 184.176 282.889 1.00 89.52 C
ATOM 5092 O TYR A 769 189.351 184.188 283.485 1.00 89.52 O
ATOM 5093 CB TYR A 769 186.173 185.172 281.961 1.00 89.52 C
ATOM 5094 CG TYR A 769 185.274 184.293 282.797 1.00 89.52 C
ATOM 5095 CD1 TYR A 769 184.625 184.797 283.916 1.00 89.52 C
ATOM 5096 CD2 TYR A 769 185.067 182.963 282.463 1.00 89.52 C
ATOM 5097 CE1 TYR A 769 183.800 183.997 284.682 1.00 89.52 C
ATOM 5098 CE2 TYR A 769 184.244 182.155 283.222 1.00 89.52 C
ATOM 5099 CZ TYR A 769 183.612 182.677 284.331 1.00 89.52 C
ATOM 5100 OH TYR A 769 182.790 181.876 285.090 1.00 89.52 O
TER
HETATM 5101 C1 NAG A1001 220.984 150.904 234.379 1.00 66.56 C
HETATM 5102 C2 NAG A1001 221.675 149.732 233.637 1.00 66.56 C
HETATM 5103 C3 NAG A1001 222.667 150.230 232.574 1.00 66.56 C
HETATM 5104 C4 NAG A1001 222.163 151.429 231.782 1.00 66.56 C
HETATM 5105 C5 NAG A1001 221.566 152.459 232.722 1.00 66.56 C
HETATM 5106 C6 NAG A1001 220.956 153.642 232.014 1.00 66.56 C
HETATM 5107 C7 NAG A1001 221.784 148.152 235.535 1.00 66.56 C
HETATM 5108 C8 NAG A1001 222.702 147.344 236.404 1.00 66.56 C
HETATM 5109 N2 NAG A1001 222.377 148.875 234.580 1.00 66.56 N
HETATM 5110 O3 NAG A1001 222.912 149.149 231.685 1.00 66.56 O
HETATM 5111 O4 NAG A1001 223.262 152.046 231.120 1.00 66.56 O
HETATM 5112 O5 NAG A1001 220.515 151.838 233.458 1.00 66.56 O
HETATM 5113 O6 NAG A1001 220.140 154.389 232.906 1.00 66.56 O
HETATM 5114 O7 NAG A1001 220.568 148.161 235.703 1.00 66.56 O
HETATM 5115 H1 NAG A1001 221.617 151.327 234.989 1.00 66.56 H
HETATM 5116 H2 NAG A1001 220.985 149.211 233.181 1.00 66.56 H
HETATM 5117 H3 NAG A1001 223.509 150.471 233.005 1.00 66.56 H

HETATM 5118 H4 NAG A1001 221.493 151.148 231.132 1.00 66.56 H
HETATM 5119 H5 NAG A1001 222.255 152.775 233.335 1.00 66.56 H
HETATM 5120 H61 NAG A1001 220.410 153.326 231.275 1.00 66.56 H
HETATM 5121 H62 NAG A1001 221.664 154.214 231.676 1.00 66.56 H
HETATM 5122 H81 NAG A1001 223.165 147.938 237.024 1.00 66.56 H
HETATM 5123 H82 NAG A1001 223.364 146.894 235.848 1.00 66.56 H
HETATM 5124 H83 NAG A1001 222.187 146.683 236.905 1.00 66.56 H
HETATM 5125 HN2 NAG A1001 223.283 148.825 234.510 1.00 66.56 H
HETATM 5126 HO3 NAG A1001 222.391 149.228 230.969 1.00 66.56 H
HETATM 5127 HO6 NAG A1001 220.101 153.974 233.690 1.00 66.56 H
HETATM 5128 C1 NAG A1002 223.850 151.373 229.970 1.00 70.73 C
HETATM 5129 C2 NAG A1002 225.346 151.395 230.215 1.00 70.73 C
HETATM 5130 C3 NAG A1002 226.079 151.021 228.939 1.00 70.73 C
HETATM 5131 C4 NAG A1002 225.262 150.039 228.101 1.00 70.73 C
HETATM 5132 C5 NAG A1002 224.266 149.208 228.924 1.00 70.73 C
HETATM 5133 C6 NAG A1002 224.940 148.173 229.799 1.00 70.73 C
HETATM 5134 C7 NAG A1002 225.973 152.958 232.002 1.00 70.73 C
HETATM 5135 C8 NAG A1002 226.439 154.343 232.327 1.00 70.73 C
HETATM 5136 N2 NAG A1002 225.791 152.690 230.704 1.00 70.73 N
HETATM 5137 O3 NAG A1002 227.338 150.443 229.273 1.00 70.73 O
HETATM 5138 O4 NAG A1002 224.548 150.749 227.097 1.00 70.73 O
HETATM 5139 O5 NAG A1002 223.422 150.014 229.774 1.00 70.73 O
HETATM 5140 O6 NAG A1002 224.188 146.968 229.846 1.00 70.73 O
HETATM 5141 O7 NAG A1002 225.764 152.122 232.876 1.00 70.73 O
HETATM 5142 H1 NAG A1002 223.633 151.904 229.180 1.00 70.73 H
HETATM 5143 H2 NAG A1002 225.560 150.721 230.887 1.00 70.73 H
HETATM 5144 H3 NAG A1002 226.206 151.829 228.408 1.00 70.73 H
HETATM 5145 H4 NAG A1002 225.879 149.428 227.658 1.00 70.73 H
HETATM 5146 H5 NAG A1002 223.690 148.729 228.299 1.00 70.73 H
HETATM 5147 H61 NAG A1002 225.053 148.512 230.704 1.00 70.73 H
HETATM 5148 H62 NAG A1002 225.822 147.971 229.435 1.00 70.73 H
HETATM 5149 H81 NAG A1002 225.717 154.979 232.165 1.00 70.73 H
HETATM 5150 H82 NAG A1002 227.205 154.566 231.766 1.00 70.73 H
HETATM 5151 H83 NAG A1002 226.700 154.379 233.266 1.00 70.73 H

HETATM 5152 HN2 NAG A1002 225.963 153.347 230.095 1.00 70.73 H
HETATM 5153 HO4 NAG A1002 223.896 150.237 226.780 1.00 70.73 H
HETATM 5154 HO6 NAG A1002 224.731 146.274 229.732 1.00 70.73 H
HETATM 5155 C1 NAG A1003 228.488 151.072 228.637 1.00 69.77 C
HETATM 5156 C2 NAG A1003 228.490 150.701 227.152 1.00 69.77 C
HETATM 5157 C3 NAG A1003 229.692 151.331 226.455 1.00 69.77 C
HETATM 5158 C4 NAG A1003 229.722 152.833 226.706 1.00 69.77 C
HETATM 5159 C5 NAG A1003 229.665 153.124 228.204 1.00 69.77 C
HETATM 5160 C6 NAG A1003 229.583 154.599 228.520 1.00 69.77 C
HETATM 5161 C7 NAG A1003 227.903 148.630 225.959 1.00 69.77 C
HETATM 5162 C8 NAG A1003 228.002 147.135 225.961 1.00 69.77 C
HETATM 5163 N2 NAG A1003 228.495 149.257 226.982 1.00 69.77 N
HETATM 5164 O3 NAG A1003 229.623 151.075 225.057 1.00 69.77 O
HETATM 5165 O4 NAG A1003 230.912 153.392 226.161 1.00 69.77 O
HETATM 5166 O5 NAG A1003 228.501 152.512 228.779 1.00 69.77 O
HETATM 5167 O6 NAG A1003 228.520 154.879 229.420 1.00 69.77 O
HETATM 5168 O7 NAG A1003 227.313 149.242 225.074 1.00 69.77 O
HETATM 5169 H1 NAG A1003 229.301 150.714 229.045 1.00 69.77 H
HETATM 5170 H2 NAG A1003 227.689 151.069 226.732 1.00 69.77 H
HETATM 5171 H3 NAG A1003 230.509 150.937 226.813 1.00 69.77 H
HETATM 5172 H4 NAG A1003 228.950 153.243 226.273 1.00 69.77 H
HETATM 5173 H5 NAG A1003 230.461 152.753 228.629 1.00 69.77 H
HETATM 5174 H61 NAG A1003 229.443 155.096 227.692 1.00 69.77 H
HETATM 5175 H62 NAG A1003 230.426 154.884 228.922 1.00 69.77 H
HETATM 5176 H81 NAG A1003 228.081 146.816 226.880 1.00 69.77 H
HETATM 5177 H82 NAG A1003 228.785 146.856 225.450 1.00 69.77 H
HETATM 5178 H83 NAG A1003 227.197 146.756 225.559 1.00 69.77 H
HETATM 5179 HN2 NAG A1003 228.914 148.751 227.615 1.00 69.77 H
HETATM 5180 HO3 NAG A1003 230.272 151.517 224.642 1.00 69.77 H
HETATM 5181 HO4 NAG A1003 231.411 153.734 226.811 1.00 69.77 H
HETATM 5182 HO6 NAG A1003 228.185 154.117 229.730 1.00 69.77 H
HETATM 5183 C1 NAG A1004 232.069 157.662 198.016 1.00 76.75 C
HETATM 5184 C2 NAG A1004 232.526 156.285 197.507 1.00 76.75 C
HETATM 5185 C3 NAG A1004 233.296 156.428 196.195 1.00 76.75 C

HETATM	5186	C4	NAG A1004	232.493	157.230	195.182	1.00	76.75	C
HETATM	5187	C5	NAG A1004	232.091	158.567	195.790	1.00	76.75	C
HETATM	5188	C6	NAG A1004	231.238	159.407	194.868	1.00	76.75	C
HETATM	5189	C7	NAG A1004	232.840	154.929	199.533	1.00	76.75	C
HETATM	5190	C8	NAG A1004	233.838	154.292	200.447	1.00	76.75	C
HETATM	5191	N2	NAG A1004	233.345	155.606	198.498	1.00	76.75	N
HETATM	5192	O3	NAG A1004	233.589	155.139	195.670	1.00	76.75	O
HETATM	5193	O4	NAG A1004	233.273	157.462	194.015	1.00	76.75	O
HETATM	5194	O5	NAG A1004	231.328	158.340	196.984	1.00	76.75	O
HETATM	5195	O6	NAG A1004	232.008	159.948	193.803	1.00	76.75	O
HETATM	5196	O7	NAG A1004	231.633	154.848	199.728	1.00	76.75	O
HETATM	5197	H1	NAG A1004	232.849	158.194	198.260	1.00	76.75	H
HETATM	5198	H2	NAG A1004	231.731	155.744	197.341	1.00	76.75	H
HETATM	5199	H3	NAG A1004	234.136	156.893	196.373	1.00	76.75	H
HETATM	5200	H4	NAG A1004	231.690	156.732	194.939	1.00	76.75	H
HETATM	5201	H5	NAG A1004	232.900	159.062	196.018	1.00	76.75	H
HETATM	5202	H61	NAG A1004	230.843	160.139	195.377	1.00	76.75	H
HETATM	5203	H62	NAG A1004	230.528	158.854	194.495	1.00	76.75	H
HETATM	5204	H81	NAG A1004	234.506	154.955	200.703	1.00	76.75	H
HETATM	5205	H82	NAG A1004	234.274	153.552	199.985	1.00	76.75	H
HETATM	5206	H83	NAG A1004	233.383	153.963	201.245	1.00	76.75	H
HETATM	5207	HN2	NAG A1004	234.251	155.631	198.402	1.00	76.75	H
HETATM	5208	HO3	NAG A1004	234.132	155.224	194.972	1.00	76.75	H
HETATM	5209	HO4	NAG A1004	234.082	157.114	194.124	1.00	76.75	H
HETATM	5210	HO6	NAG A1004	232.731	159.449	193.672	1.00	76.75	H
HETATM	5211	C1	NAG A1005	240.819	167.424	198.629	1.00	89.61	C
HETATM	5212	C2	NAG A1005	240.745	167.382	200.171	1.00	89.61	C
HETATM	5213	C3	NAG A1005	242.151	167.405	200.790	1.00	89.61	C
HETATM	5214	C4	NAG A1005	243.054	166.363	200.147	1.00	89.61	C
HETATM	5215	C5	NAG A1005	243.065	166.570	198.644	1.00	89.61	C
HETATM	5216	C6	NAG A1005	243.926	165.570	197.907	1.00	89.61	C
HETATM	5217	C7	NAG A1005	239.614	168.652	201.950	1.00	89.61	C
HETATM	5218	C8	NAG A1005	238.813	169.877	202.275	1.00	89.61	C
HETATM	5219	N2	NAG A1005	239.958	168.499	200.666	1.00	89.61	N

HETATM 5220 O3 NAG A1005 242.074 167.150 202.187 1.00 89.61 O
HETATM 5221 O4 NAG A1005 244.377 166.477 200.655 1.00 89.61 O
HETATM 5222 O5 NAG A1005 241.728 166.417 198.156 1.00 89.61 O
HETATM 5223 O6 NAG A1005 244.336 166.074 196.643 1.00 89.61 O
HETATM 5224 O7 NAG A1005 239.943 167.843 202.814 1.00 89.61 O
HETATM 5225 H1 NAG A1005 241.136 168.305 198.352 1.00 89.61 H
HETATM 5226 H2 NAG A1005 240.311 166.549 200.431 1.00 89.61 H
HETATM 5227 H3 NAG A1005 242.545 168.286 200.648 1.00 89.61 H
HETATM 5228 H4 NAG A1005 242.709 165.471 200.348 1.00 89.61 H
HETATM 5229 H5 NAG A1005 243.379 167.472 198.447 1.00 89.61 H
HETATM 5230 H61 NAG A1005 243.424 164.746 197.776 1.00 89.61 H
HETATM 5231 H62 NAG A1005 244.720 165.377 198.435 1.00 89.61 H
HETATM 5232 H81 NAG A1005 239.411 170.643 202.358 1.00 89.61 H
HETATM 5233 H82 NAG A1005 238.342 169.740 203.117 1.00 89.61 H
HETATM 5234 H83 NAG A1005 238.174 170.043 201.557 1.00 89.61 H
HETATM 5235 HN2 NAG A1005 239.691 169.135 200.070 1.00 89.61 H
HETATM 5236 HO3 NAG A1005 242.117 167.918 202.632 1.00 89.61 H
HETATM 5237 HO4 NAG A1005 244.759 165.674 200.663 1.00 89.61 H
HETATM 5238 HO6 NAG A1005 244.659 166.894 196.749 1.00 89.61 H
HETATM 5239 C1 NAG A1006 230.362 144.338 203.778 1.00 54.24 C
HETATM 5240 C2 NAG A1006 229.980 142.874 203.753 1.00 54.24 C
HETATM 5241 C3 NAG A1006 229.624 142.466 202.335 1.00 54.24 C
HETATM 5242 C4 NAG A1006 228.487 143.341 201.824 1.00 54.24 C
HETATM 5243 C5 NAG A1006 228.825 144.827 201.975 1.00 54.24 C
HETATM 5244 C6 NAG A1006 227.634 145.717 201.710 1.00 54.24 C
HETATM 5245 C7 NAG A1006 231.291 141.935 205.597 1.00 54.24 C
HETATM 5246 C8 NAG A1006 232.405 141.011 205.986 1.00 54.24 C
HETATM 5247 N2 NAG A1006 231.036 142.030 204.288 1.00 54.24 N
HETATM 5248 O3 NAG A1006 229.246 141.095 202.308 1.00 54.24 O
HETATM 5249 O4 NAG A1006 228.236 143.057 200.453 1.00 54.24 O
HETATM 5250 O5 NAG A1006 229.263 145.126 203.312 1.00 54.24 O
HETATM 5251 O6 NAG A1006 228.025 147.042 201.380 1.00 54.24 O
HETATM 5252 O7 NAG A1006 230.653 142.570 206.430 1.00 54.24 O
HETATM 5253 H1 NAG A1006 231.133 144.479 203.195 1.00 54.24 H

```
HETATM 5254  H2  NAG A1006     229.184 142.762 204.307  1.00 54.24           H
HETATM 5255  H3  NAG A1006     230.405 142.591 201.764  1.00 54.24           H
HETATM 5256  H4  NAG A1006     227.683 143.144 202.339  1.00 54.24           H
HETATM 5257  H5  NAG A1006     229.537 145.057 201.349  1.00 54.24           H
HETATM 5258  H61 NAG A1006     227.079 145.744 202.512  1.00 54.24           H
HETATM 5259  H62 NAG A1006     227.110 145.345 200.976  1.00 54.24           H
HETATM 5260  H81 NAG A1006     233.263 141.415 205.757  1.00 54.24           H
HETATM 5261  H82 NAG A1006     232.306 140.163 205.513  1.00 54.24           H
HETATM 5262  H83 NAG A1006     232.369 140.851 206.948  1.00 54.24           H
HETATM 5263  HN2 NAG A1006     231.532 141.534 203.706  1.00 54.24           H
HETATM 5264  HO3 NAG A1006     229.883 140.628 201.903  1.00 54.24           H
HETATM 5265  HO4 NAG A1006     228.359 142.190 200.303  1.00 54.24           H
HETATM 5266  HO6 NAG A1006     227.298 147.526 201.218  1.00 54.24           H
HETATM 5267  C1  NAG A1007     227.807 173.029 166.433  1.00111.92           C
HETATM 5268  C2  NAG A1007     229.322 173.318 166.554  1.00111.92           C
HETATM 5269  C3  NAG A1007     230.155 172.499 165.556  1.00111.92           C
HETATM 5270  C4  NAG A1007     229.681 171.055 165.438  1.00111.92           C
HETATM 5271  C5  NAG A1007     228.169 170.983 165.315  1.00111.92           C
HETATM 5272  C6  NAG A1007     227.642 169.564 165.319  1.00111.92           C
HETATM 5273  C7  NAG A1007     230.768 175.314 166.513  1.00111.92           C
HETATM 5274  C8  NAG A1007     230.824 176.794 166.262  1.00111.92           C
HETATM 5275  N2  NAG A1007     229.569 174.739 166.366  1.00111.92           N
HETATM 5276  O3  NAG A1007     231.474 172.505 166.094  1.00111.92           O
HETATM 5277  O4  NAG A1007     230.258 170.440 164.290  1.00111.92           O
HETATM 5278  O5  NAG A1007     227.583 171.644 166.438  1.00111.92           O
HETATM 5279  O6  NAG A1007     226.331 169.495 165.866  1.00111.92           O
HETATM 5280  O7  NAG A1007     231.765 174.670 166.831  1.00111.92           O
HETATM 5281  H1  NAG A1007     227.466 173.413 165.604  1.00111.92           H
HETATM 5282  H2  NAG A1007     229.626 173.046 167.440  1.00111.92           H
HETATM 5283  H3  NAG A1007     230.138 172.934 164.685  1.00111.92           H
HETATM 5284  H4  NAG A1007     229.953 170.565 166.235  1.00111.92           H
HETATM 5285  H5  NAG A1007     227.891 171.430 164.493  1.00111.92           H
HETATM 5286  H61 NAG A1007     228.239 169.003 165.851  1.00111.92           H
HETATM 5287  H62 NAG A1007     227.626 169.224 164.406  1.00111.92           H
```

HETATM	5288	H81	NAG A1007	230.698	176.965	165.310	1.00111.92	H
HETATM	5289	H82	NAG A1007	231.693	177.139	166.542	1.00111.92	H
HETATM	5290	H83	NAG A1007	230.115	177.237	166.765	1.00111.92	H
HETATM	5291	HN2	NAG A1007	228.868	175.267	166.124	1.00111.92	H
HETATM	5292	HO4	NAG A1007	230.567	171.064	163.741	1.00111.92	H
HETATM	5293	HO6	NAG A1007	226.290	168.811	166.431	1.00111.92	H
HETATM	5294	C1	NAG A1008	232.559	171.972	165.298	1.00112.19	C
HETATM	5295	C2	NAG A1008	232.999	170.643	165.934	1.00112.19	C
HETATM	5296	C3	NAG A1008	234.136	170.029	165.124	1.00112.19	C
HETATM	5297	C4	NAG A1008	233.733	169.902	163.661	1.00112.19	C
HETATM	5298	C5	NAG A1008	233.276	171.257	163.128	1.00112.19	C
HETATM	5299	C6	NAG A1008	232.786	171.200	161.700	1.00112.19	C
HETATM	5300	C7	NAG A1008	232.575	170.685	168.359	1.00112.19	C
HETATM	5301	C8	NAG A1008	233.174	170.910	169.715	1.00112.19	C
HETATM	5302	N2	NAG A1008	233.405	170.830	167.319	1.00112.19	N
HETATM	5303	O3	NAG A1008	234.465	168.751	165.655	1.00112.19	O
HETATM	5304	O4	NAG A1008	234.838	169.438	162.894	1.00112.19	O
HETATM	5305	O5	NAG A1008	232.188	171.747	163.923	1.00112.19	O
HETATM	5306	O6	NAG A1008	233.703	171.824	160.812	1.00112.19	O
HETATM	5307	O7	NAG A1008	231.396	170.384	168.214	1.00112.19	O
HETATM	5308	H1	NAG A1008	233.308	172.593	165.327	1.00112.19	H
HETATM	5309	H2	NAG A1008	232.249	170.022	165.903	1.00112.19	H
HETATM	5310	H3	NAG A1008	234.918	170.609	165.187	1.00112.19	H
HETATM	5311	H4	NAG A1008	233.000	169.263	163.588	1.00112.19	H
HETATM	5312	H5	NAG A1008	234.020	171.885	163.183	1.00112.19	H
HETATM	5313	H61	NAG A1008	231.927	171.658	161.644	1.00112.19	H
HETATM	5314	H62	NAG A1008	232.673	170.267	161.440	1.00112.19	H
HETATM	5315	H81	NAG A1008	233.649	171.762	169.728	1.00112.19	H
HETATM	5316	H82	NAG A1008	233.795	170.185	169.920	1.00112.19	H
HETATM	5317	H83	NAG A1008	232.463	170.925	170.383	1.00112.19	H
HETATM	5318	HN2	NAG A1008	234.273	171.051	167.487	1.00112.19	H
HETATM	5319	HO3	NAG A1008	235.222	168.813	166.116	1.00112.19	H
HETATM	5320	HO4	NAG A1008	235.414	169.023	163.428	1.00112.19	H
HETATM	5321	HO6	NAG A1008	233.678	172.704	160.929	1.00112.19	H

HETATM 5322 C1 NAG A1009 218.397 172.990 155.647 1.00106.02 C
HETATM 5323 C2 NAG A1009 219.866 173.352 155.465 1.00106.02 C
HETATM 5324 C3 NAG A1009 220.262 173.189 154.005 1.00106.02 C
HETATM 5325 C4 NAG A1009 219.910 171.790 153.515 1.00106.02 C
HETATM 5326 C5 NAG A1009 218.445 171.476 153.809 1.00106.02 C
HETATM 5327 C6 NAG A1009 218.058 170.057 153.463 1.00106.02 C
HETATM 5328 C7 NAG A1009 220.494 175.008 157.167 1.00106.02 C
HETATM 5329 C8 NAG A1009 220.702 176.463 157.464 1.00106.02 C
HETATM 5330 N2 NAG A1009 220.123 174.710 155.917 1.00106.02 N
HETATM 5331 O3 NAG A1009 221.657 173.428 153.858 1.00106.02 O
HETATM 5332 O4 NAG A1009 220.136 171.687 152.113 1.00106.02 O
HETATM 5333 O5 NAG A1009 218.176 171.652 155.208 1.00106.02 O
HETATM 5334 O6 NAG A1009 217.001 169.582 154.287 1.00106.02 O
HETATM 5335 O7 NAG A1009 220.651 174.142 158.023 1.00106.02 O
HETATM 5336 H1 NAG A1009 217.854 173.611 155.125 1.00106.02 H
HETATM 5337 H2 NAG A1009 220.406 172.729 155.990 1.00106.02 H
HETATM 5338 H3 NAG A1009 219.769 173.839 153.472 1.00106.02 H
HETATM 5339 H4 NAG A1009 220.474 171.145 153.980 1.00106.02 H
HETATM 5340 H5 NAG A1009 217.882 172.088 153.299 1.00106.02 H
HETATM 5341 H61 NAG A1009 218.836 169.480 153.571 1.00106.02 H
HETATM 5342 H62 NAG A1009 217.773 170.030 152.532 1.00106.02 H
HETATM 5343 H81 NAG A1009 219.835 176.906 157.536 1.00106.02 H
HETATM 5344 H82 NAG A1009 221.216 176.878 156.746 1.00106.02 H
HETATM 5345 H83 NAG A1009 221.184 176.557 158.308 1.00106.02 H
HETATM 5346 HN2 NAG A1009 220.013 175.391 155.322 1.00106.02 H
HETATM 5347 HO3 NAG A1009 221.863 173.459 152.994 1.00106.02 H
HETATM 5348 HO4 NAG A1009 220.065 170.838 151.863 1.00106.02 H
HETATM 5349 HO6 NAG A1009 216.805 170.190 154.903 1.00106.02 H
HETATM 5350 C1 NAG A1010 188.895 154.709 210.383 1.00 53.57 C
HETATM 5351 C2 NAG A1010 188.095 153.995 211.470 1.00 53.57 C
HETATM 5352 C3 NAG A1010 188.339 152.489 211.390 1.00 53.57 C
HETATM 5353 C4 NAG A1010 188.082 151.978 209.979 1.00 53.57 C
HETATM 5354 C5 NAG A1010 188.843 152.811 208.952 1.00 53.57 C
HETATM 5355 C6 NAG A1010 188.506 152.447 207.525 1.00 53.57 C

HETATM	5356	C7	NAG	A1010	187.762	154.184	213.897	1.00 53.57	C
HETATM	5357	C8	NAG	A1010	188.249	154.810	215.171	1.00 53.57	C
HETATM	5358	N2	NAG	A1010	188.435	154.507	212.787	1.00 53.57	N
HETATM	5359	O3	NAG	A1010	187.488	151.798	212.296	1.00 53.57	O
HETATM	5360	O4	NAG	A1010	188.504	150.624	209.878	1.00 53.57	O
HETATM	5361	O5	NAG	A1010	188.524	154.200	209.111	1.00 53.57	O
HETATM	5362	O6	NAG	A1010	189.463	152.973	206.616	1.00 53.57	O
HETATM	5363	O7	NAG	A1010	186.809	153.411	213.876	1.00 53.57	O
HETATM	5364	H1	NAG	A1010	189.847	154.556	210.523	1.00 53.57	H
HETATM	5365	H2	NAG	A1010	187.146	154.151	211.306	1.00 53.57	H
HETATM	5366	H3	NAG	A1010	189.267	152.305	211.625	1.00 53.57	H
HETATM	5367	H4	NAG	A1010	187.125	152.028	209.795	1.00 53.57	H
HETATM	5368	H5	NAG	A1010	189.799	152.687	209.097	1.00 53.57	H
HETATM	5369	H61	NAG	A1010	187.623	152.802	207.304	1.00 53.57	H
HETATM	5370	H62	NAG	A1010	188.484	151.476	207.443	1.00 53.57	H
HETATM	5371	H81	NAG	A1010	189.217	154.924	215.131	1.00 53.57	H
HETATM	5372	H82	NAG	A1010	188.020	154.231	215.921	1.00 53.57	H
HETATM	5373	H83	NAG	A1010	187.821	155.677	215.290	1.00 53.57	H
HETATM	5374	HN2	NAG	A1010	189.132	155.089	212.857	1.00 53.57	H
HETATM	5375	HO3	NAG	A1010	187.947	151.580	213.025	1.00 53.57	H
HETATM	5376	HO4	NAG	A1010	188.075	150.229	209.209	1.00 53.57	H
HETATM	5377	HO6	NAG	A1010	189.051	153.247	205.879	1.00 53.57	H
HETATM	5378	C1	NAG	A1011	197.639	152.339	209.717	1.00 57.73	C
HETATM	5379	C2	NAG	A1011	197.478	150.858	209.434	1.00 57.73	C
HETATM	5380	C3	NAG	A1011	198.456	150.447	208.346	1.00 57.73	C
HETATM	5381	C4	NAG	A1011	198.260	151.323	207.116	1.00 57.73	C
HETATM	5382	C5	NAG	A1011	198.290	152.806	207.492	1.00 57.73	C
HETATM	5383	C6	NAG	A1011	197.937	153.717	206.342	1.00 57.73	C
HETATM	5384	C7	NAG	A1011	196.685	149.704	211.451	1.00 57.73	C
HETATM	5385	C8	NAG	A1011	197.076	148.898	212.655	1.00 57.73	C
HETATM	5386	N2	NAG	A1011	197.683	150.069	210.638	1.00 57.73	N
HETATM	5387	O3	NAG	A1011	198.269	149.074	208.023	1.00 57.73	O
HETATM	5388	O4	NAG	A1011	199.288	151.065	206.166	1.00 57.73	O
HETATM	5389	O5	NAG	A1011	197.349	153.079	208.542	1.00 57.73	O

HETATM	5390	O6	NAG	A1011	198.259	155.070	206.634	1.00 57.73	O
HETATM	5391	O7	NAG	A1011	195.518	150.011	211.227	1.00 57.73	O
HETATM	5392	H1	NAG	A1011	198.557	152.518	209.994	1.00 57.73	H
HETATM	5393	H2	NAG	A1011	196.577	150.703	209.092	1.00 57.73	H
HETATM	5394	H3	NAG	A1011	199.364	150.575	208.675	1.00 57.73	H
HETATM	5395	H4	NAG	A1011	197.397	151.116	206.715	1.00 57.73	H
HETATM	5396	H5	NAG	A1011	199.184	153.034	207.807	1.00 57.73	H
HETATM	5397	H61	NAG	A1011	196.980	153.648	206.163	1.00 57.73	H
HETATM	5398	H62	NAG	A1011	198.433	153.435	205.551	1.00 57.73	H
HETATM	5399	H81	NAG	A1011	197.693	149.413	213.207	1.00 57.73	H
HETATM	5400	H82	NAG	A1011	197.506	148.068	212.378	1.00 57.73	H
HETATM	5401	H83	NAG	A1011	196.279	148.688	213.177	1.00 57.73	H
HETATM	5402	HN2	NAG	A1011	198.533	149.819	210.853	1.00 57.73	H
HETATM	5403	HO3	NAG	A1011	198.908	148.600	208.419	1.00 57.73	H
HETATM	5404	HO4	NAG	A1011	199.704	150.311	206.380	1.00 57.73	H
HETATM	5405	HO6	NAG	A1011	198.578	155.124	207.461	1.00 57.73	H
HETATM	5406	C1	NAG	A1012	220.222	154.782	185.159	1.00146.68	C
HETATM	5407	C2	NAG	A1012	221.433	153.852	185.194	1.00146.68	C
HETATM	5408	C3	NAG	A1012	220.994	152.417	184.918	1.00146.68	C
HETATM	5409	C4	NAG	A1012	219.863	152.014	185.855	1.00146.68	C
HETATM	5410	C5	NAG	A1012	218.738	153.048	185.826	1.00146.68	C
HETATM	5411	C6	NAG	A1012	217.646	152.766	186.833	1.00146.68	C
HETATM	5412	C7	NAG	A1012	223.707	153.867	184.258	1.00146.68	C
HETATM	5413	C8	NAG	A1012	224.599	154.416	183.185	1.00146.68	C
HETATM	5414	N2	NAG	A1012	222.435	154.276	184.228	1.00146.68	N
HETATM	5415	O3	NAG	A1012	222.097	151.534	185.090	1.00146.68	O
HETATM	5416	O4	NAG	A1012	219.340	150.750	185.462	1.00146.68	O
HETATM	5417	O5	NAG	A1012	219.259	154.352	186.127	1.00146.68	O
HETATM	5418	O6	NAG	A1012	218.139	152.804	188.165	1.00146.68	O
HETATM	5419	O7	NAG	A1012	224.118	153.083	185.110	1.00146.68	O
HETATM	5420	H1	NAG	A1012	219.823	154.762	184.268	1.00146.68	H
HETATM	5421	H2	NAG	A1012	221.827	153.886	186.086	1.00146.68	H
HETATM	5422	H3	NAG	A1012	220.676	152.355	183.998	1.00146.68	H
HETATM	5423	H4	NAG	A1012	220.211	151.949	186.765	1.00146.68	H

HETATM 5424 H5 NAG A1012 218.345 153.063 184.932 1.00146.68 H
HETATM 5425 H61 NAG A1012 217.277 151.879 186.660 1.00146.68 H
HETATM 5426 H62 NAG A1012 216.935 153.428 186.733 1.00146.68 H
HETATM 5427 H81 NAG A1012 224.590 155.390 183.234 1.00146.68 H
HETATM 5428 H82 NAG A1012 224.277 154.133 182.309 1.00146.68 H
HETATM 5429 H83 NAG A1012 225.510 154.093 183.316 1.00146.68 H
HETATM 5430 HN2 NAG A1012 222.188 154.866 183.578 1.00146.68 H
HETATM 5431 HO3 NAG A1012 221.986 150.819 184.575 1.00146.68 H
HETATM 5432 HO4 NAG A1012 219.500 150.619 184.599 1.00146.68 H
HETATM 5433 HO6 NAG A1012 217.573 152.375 188.699 1.00146.68 H
HETATM 5434 C1 NAG A1013 200.211 164.658 156.850 1.00131.48 C
HETATM 5435 C2 NAG A1013 199.574 163.473 157.599 1.00131.48 C
HETATM 5436 C3 NAG A1013 198.849 162.543 156.624 1.00131.48 C
HETATM 5437 C4 NAG A1013 197.874 163.322 155.754 1.00131.48 C
HETATM 5438 C5 NAG A1013 198.603 164.459 155.052 1.00131.48 C
HETATM 5439 C6 NAG A1013 197.681 165.356 154.258 1.00131.48 C
HETATM 5440 C7 NAG A1013 201.000 163.086 159.569 1.00131.48 C
HETATM 5441 C8 NAG A1013 202.042 162.203 160.184 1.00131.48 C
HETATM 5442 N2 NAG A1013 200.578 162.733 158.349 1.00131.48 N
HETATM 5443 O3 NAG A1013 198.143 161.554 157.364 1.00131.48 O
HETATM 5444 O4 NAG A1013 197.293 162.464 154.780 1.00131.48 O
HETATM 5445 O5 NAG A1013 199.228 165.296 156.031 1.00131.48 O
HETATM 5446 O6 NAG A1013 196.838 164.613 153.389 1.00131.48 O
HETATM 5447 O7 NAG A1013 200.565 164.079 160.146 1.00131.48 O
HETATM 5448 H1 NAG A1013 200.935 164.327 156.287 1.00131.48 H
HETATM 5449 H2 NAG A1013 198.913 163.826 158.225 1.00131.48 H
HETATM 5450 H3 NAG A1013 199.504 162.102 156.050 1.00131.48 H
HETATM 5451 H4 NAG A1013 197.171 163.696 156.319 1.00131.48 H
HETATM 5452 H5 NAG A1013 199.280 164.086 154.455 1.00131.48 H
HETATM 5453 H61 NAG A1013 198.220 165.974 153.729 1.00131.48 H
HETATM 5454 H62 NAG A1013 197.127 165.866 154.880 1.00131.48 H
HETATM 5455 H81 NAG A1013 202.843 162.205 159.626 1.00131.48 H
HETATM 5456 H82 NAG A1013 201.697 161.293 160.254 1.00131.48 H
HETATM 5457 H83 NAG A1013 202.268 162.539 161.073 1.00131.48 H

HETATM	5458	HN2	NAG	A1013	200.937	161.986	157.970	1.00131.48	H
HETATM	5459	HO3	NAG	A1013	197.481	161.943	157.811	1.00131.48	H
HETATM	5460	HO4	NAG	A1013	197.882	162.312	154.132	1.00131.48	H
HETATM	5461	HO6	NAG	A1013	196.317	165.175	152.941	1.00131.48	H
HETATM	5462	C1	NAG	A1014	211.266	203.119	155.498	1.00152.13	C
HETATM	5463	C2	NAG	A1014	212.757	202.867	155.316	1.00152.13	C
HETATM	5464	C3	NAG	A1014	213.044	202.512	153.865	1.00152.13	C
HETATM	5465	C4	NAG	A1014	212.173	201.340	153.433	1.00152.13	C
HETATM	5466	C5	NAG	A1014	210.698	201.615	153.752	1.00152.13	C
HETATM	5467	C6	NAG	A1014	209.802	200.432	153.475	1.00152.13	C
HETATM	5468	C7	NAG	A1014	214.189	204.105	156.897	1.00152.13	C
HETATM	5469	C8	NAG	A1014	214.943	205.375	157.147	1.00152.13	C
HETATM	5470	N2	NAG	A1014	213.548	204.023	155.726	1.00152.13	N
HETATM	5471	O3	NAG	A1014	214.420	202.179	153.713	1.00152.13	O
HETATM	5472	O4	NAG	A1014	212.311	201.117	152.034	1.00152.13	O
HETATM	5473	O5	NAG	A1014	210.533	201.942	155.142	1.00152.13	O
HETATM	5474	O6	NAG	A1014	209.045	200.068	154.622	1.00152.13	O
HETATM	5475	O7	NAG	A1014	214.160	203.187	157.716	1.00152.13	O
HETATM	5476	H1	NAG	A1014	210.995	203.871	154.933	1.00152.13	H
HETATM	5477	H2	NAG	A1014	213.012	202.098	155.855	1.00152.13	H
HETATM	5478	H3	NAG	A1014	212.843	203.284	153.307	1.00152.13	H
HETATM	5479	H4	NAG	A1014	212.454	200.536	153.913	1.00152.13	H
HETATM	5480	H5	NAG	A1014	210.401	202.371	153.209	1.00152.13	H
HETATM	5481	H61	NAG	A1014	210.356	199.676	153.199	1.00152.13	H
HETATM	5482	H62	NAG	A1014	209.193	200.658	152.744	1.00152.13	H
HETATM	5483	H81	NAG	A1014	214.341	206.133	157.031	1.00152.13	H
HETATM	5484	H82	NAG	A1014	215.695	205.451	156.524	1.00152.13	H
HETATM	5485	H83	NAG	A1014	215.275	205.379	158.065	1.00152.13	H
HETATM	5486	HN2	NAG	A1014	213.592	204.735	155.159	1.00152.13	H
HETATM	5487	HO3	NAG	A1014	214.929	202.838	154.021	1.00152.13	H
HETATM	5488	HO4	NAG	A1014	212.967	200.534	151.893	1.00152.13	H
HETATM	5489	HO6	NAG	A1014	208.530	199.375	154.412	1.00152.13	H
HETATM	5490	C1	NAG	A1015	224.965	153.979	192.814	1.00 87.45	C
HETATM	5491	C2	NAG	A1015	226.363	153.454	193.235	1.00 87.45	C

HETATM 5492 C3 NAG A1015 226.815 152.295 192.329 1.00 87.45 C
HETATM 5493 C4 NAG A1015 225.728 151.239 192.181 1.00 87.45 C
HETATM 5494 C5 NAG A1015 224.446 151.889 191.696 1.00 87.45 C
HETATM 5495 C6 NAG A1015 223.293 150.918 191.573 1.00 87.45 C
HETATM 5496 C7 NAG A1015 228.631 154.402 193.465 1.00 87.45 C
HETATM 5497 C8 NAG A1015 229.465 155.639 193.332 1.00 87.45 C
HETATM 5498 N2 NAG A1015 227.329 154.541 193.186 1.00 87.45 N
HETATM 5499 O3 NAG A1015 227.978 151.678 192.868 1.00 87.45 O
HETATM 5500 O4 NAG A1015 226.135 150.247 191.246 1.00 87.45 O
HETATM 5501 O5 NAG A1015 224.054 152.878 192.653 1.00 87.45 O
HETATM 5502 O6 NAG A1015 222.045 151.573 191.758 1.00 87.45 O
HETATM 5503 O7 NAG A1015 229.116 153.327 193.805 1.00 87.45 O
HETATM 5504 H1 NAG A1015 225.043 154.464 191.970 1.00 87.45 H
HETATM 5505 H2 NAG A1015 226.305 153.121 194.149 1.00 87.45 H
HETATM 5506 H3 NAG A1015 227.028 152.650 191.445 1.00 87.45 H
HETATM 5507 H4 NAG A1015 225.574 150.816 193.048 1.00 87.45 H
HETATM 5508 H5 NAG A1015 224.603 152.318 190.834 1.00 87.45 H
HETATM 5509 H61 NAG A1015 223.382 150.222 192.249 1.00 87.45 H
HETATM 5510 H62 NAG A1015 223.307 150.509 190.691 1.00 87.45 H
HETATM 5511 H81 NAG A1015 229.163 156.147 192.556 1.00 87.45 H
HETATM 5512 H82 NAG A1015 230.397 155.385 193.200 1.00 87.45 H
HETATM 5513 H83 NAG A1015 229.381 156.184 194.135 1.00 87.45 H
HETATM 5514 HN2 NAG A1015 227.032 155.363 192.928 1.00 87.45 H
HETATM 5515 HO3 NAG A1015 228.690 151.926 192.399 1.00 87.45 H
HETATM 5516 HO4 NAG A1015 225.625 150.285 190.520 1.00 87.45 H
HETATM 5517 HO6 NAG A1015 221.600 151.194 192.425 1.00 87.45 H
HETATM 5518 C1 PFE A1101 192.861 213.815 255.910 1.00 71.07 C
HETATM 5519 C13 PFE A1101 189.817 210.033 257.567 1.00 71.07 C
HETATM 5520 C18 PFE A1101 195.936 211.791 255.899 1.00 71.07 C
HETATM 5521 C2 PFE A1101 193.826 212.907 256.662 1.00 71.07 C
HETATM 5522 C21 PFE A1101 197.655 210.581 254.441 1.00 71.07 C
HETATM 5523 C22 PFE A1101 197.693 209.801 253.292 1.00 71.07 C
HETATM 5524 C23 PFE A1101 198.866 209.178 252.909 1.00 71.07 C
HETATM 5525 C24 PFE A1101 200.019 209.322 253.670 1.00 71.07 C

HETATM 5526 C25 PFE A1101 199.981 210.101 254.817 1.00 71.07 C
HETATM 5527 C26 PFE A1101 198.810 210.726 255.198 1.00 71.07 C
HETATM 5528 C28 PFE A1101 201.613 207.985 252.288 1.00 71.07 C
HETATM 5529 C3 PFE A1101 193.100 211.908 257.544 1.00 71.07 C
HETATM 5530 C30 PFE A1101 202.978 207.419 252.390 1.00 71.07 C
HETATM 5531 C31 PFE A1101 203.524 206.592 251.463 1.00 71.07 C
HETATM 5532 C33 PFE A1101 204.913 207.107 253.325 1.00 71.07 C
HETATM 5533 C4 PFE A1101 191.830 211.464 257.201 1.00 71.07 C
HETATM 5534 C5 PFE A1101 191.171 210.516 257.974 1.00 71.07 C
HETATM 5535 C6 PFE A1101 191.779 209.999 259.111 1.00 71.07 C
HETATM 5536 C7 PFE A1101 193.048 210.440 259.465 1.00 71.07 C
HETATM 5537 C8 PFE A1101 193.696 211.393 258.688 1.00 71.07 C
HETATM 5538 C9 PFE A1101 193.729 209.870 260.666 1.00 71.07 C
HETATM 5539 F10 PFE A1101 192.900 209.189 261.449 1.00 71.07 F
HETATM 5540 F11 PFE A1101 194.706 209.028 260.347 1.00 71.07 F
HETATM 5541 F12 PFE A1101 194.281 210.803 261.435 1.00 71.07 F
HETATM 5542 F14 PFE A1101 188.934 210.088 258.558 1.00 71.07 F
HETATM 5543 F15 PFE A1101 189.299 210.742 256.570 1.00 71.07 F
HETATM 5544 F16 PFE A1101 189.828 208.771 257.151 1.00 71.07 F
HETATM 5545 N17 PFE A1101 194.687 212.227 255.689 1.00 71.07 N
HETATM 5546 N20 PFE A1101 196.427 211.203 254.781 1.00 71.07 N
HETATM 5547 N27 PFE A1101 201.258 208.708 253.372 1.00 71.07 N
HETATM 5548 N34 PFE A1101 203.783 207.720 253.475 1.00 71.07 N
HETATM 5549 O29 PFE A1101 200.906 207.787 251.304 1.00 71.07 O
HETATM 5550 S19 PFE A1101 196.733 211.981 257.369 1.00 71.07 S
HETATM 5551 S32 PFE A1101 205.100 206.151 251.922 1.00 71.07 S
HETATM 5552 HC2 PFE A1101 194.425 213.563 257.291 1.00 71.07 H
HETATM 5553 HC4 PFE A1101 191.339 211.861 256.314 1.00 71.07 H
HETATM 5554 HC6 PFE A1101 191.275 209.246 259.715 1.00 71.07 H
HETATM 5555 HC8 PFE A1101 194.685 211.745 258.975 1.00 71.07 H
HETATM 5556 HC1A PFE A1101 192.123 214.244 256.586 1.00 71.07 H
HETATM 5557 HC1B PFE A1101 193.391 214.651 255.458 1.00 71.07 H
HETATM 5558 HC1C PFE A1101 192.327 213.317 255.103 1.00 71.07 H
HETATM 5559 HC22 PFE A1101 196.803 209.675 252.679 1.00 71.07 H

```
HETATM 5560 HC23 PFE A1101     198.841 208.585 251.996  1.00 71.07           H
HETATM 5561 HC25 PFE A1101     200.866 210.228 255.437  1.00 71.07           H
HETATM 5562 HC26 PFE A1101     198.800 211.327 256.106  1.00 71.07           H
HETATM 5563 HC31 PFE A1101     203.055 206.228 250.550  1.00 71.07           H
HETATM 5564 HC33 PFE A1101     205.709 207.193 254.063  1.00 71.07           H
HETATM 5565 HN17 PFE A1101     194.241 212.103 254.786  1.00 71.07           H
HETATM 5566 HN20 PFE A1101     195.819 211.163 253.969  1.00 71.07           H
HETATM 5567 HN27 PFE A1101     201.960 208.852 254.091  1.00 71.07           H
TER
ATOM   5568  N   THR B  87     223.834 199.573 195.194  1.00 82.38           N
ATOM   5569  CA  THR B  87     222.504 199.132 195.596  1.00 82.38           C
ATOM   5570  C   THR B  87     221.522 200.297 195.604  1.00 82.38           C
ATOM   5571  O   THR B  87     221.843 201.390 196.069  1.00 82.38           O
ATOM   5572  CB  THR B  87     222.523 198.481 196.991  1.00 82.38           C
ATOM   5573  OG1 THR B  87     223.398 197.347 196.981  1.00 82.38           O
ATOM   5574  CG2 THR B  87     221.126 198.031 197.387  1.00 82.38           C
ATOM   5575  N   LYS B  88     220.321 200.056 195.080  1.00 72.14           N
ATOM   5576  CA  LYS B  88     219.260 201.052 195.056  1.00 72.14           C
ATOM   5577  C   LYS B  88     218.240 200.838 196.167  1.00 72.14           C
ATOM   5578  O   LYS B  88     217.110 201.326 196.066  1.00 72.14           O
ATOM   5579  CB  LYS B  88     218.565 201.052 193.694  1.00 72.14           C
ATOM   5580  CG  LYS B  88     217.812 199.769 193.383  1.00 72.14           C
ATOM   5581  CD  LYS B  88     217.186 199.822 191.999  1.00 72.14           C
ATOM   5582  CE  LYS B  88     216.414 198.551 191.691  1.00 72.14           C
ATOM   5583  NZ  LYS B  88     215.803 198.594 190.334  1.00 72.14           N
ATOM   5584  N   TYR B  89     218.613 200.117 197.222  1.00 62.21           N
ATOM   5585  CA  TYR B  89     217.728 199.834 198.350  1.00 62.21           C
ATOM   5586  C   TYR B  89     218.436 200.228 199.638  1.00 62.21           C
ATOM   5587  O   TYR B  89     218.927 199.368 200.380  1.00 62.21           O
ATOM   5588  CB  TYR B  89     217.321 198.361 198.376  1.00 62.21           C
ATOM   5589  CG  TYR B  89     216.457 197.947 197.210  1.00 62.21           C
ATOM   5590  CD1 TYR B  89     215.101 198.233 197.192  1.00 62.21           C
ATOM   5591  CD2 TYR B  89     216.997 197.267 196.129  1.00 62.21           C
ATOM   5592  CE1 TYR B  89     214.306 197.857 196.130  1.00 62.21           C
```

ATOM 5593 CE2 TYR B 89 216.211 196.887 195.061 1.00 62.21 C
ATOM 5594 CZ TYR B 89 214.866 197.184 195.068 1.00 62.21 C
ATOM 5595 OH TYR B 89 214.076 196.807 194.007 1.00 62.21 O
ATOM 5596 N PRO B 90 218.512 201.521 199.932 1.00 51.46 N
ATOM 5597 CA PRO B 90 219.133 201.959 201.183 1.00 51.46 C
ATOM 5598 C PRO B 90 218.161 201.865 202.348 1.00 51.46 C
ATOM 5599 O PRO B 90 216.941 201.898 202.182 1.00 51.46 O
ATOM 5600 CB PRO B 90 219.503 203.417 200.897 1.00 51.46 C
ATOM 5601 CG PRO B 90 218.477 203.855 199.915 1.00 51.46 C
ATOM 5602 CD PRO B 90 218.174 202.655 199.057 1.00 51.46 C
ATOM 5603 N TYR B 91 218.734 201.740 203.542 1.00 42.61 N
ATOM 5604 CA TYR B 91 217.937 201.667 204.760 1.00 42.61 C
ATOM 5605 C TYR B 91 217.093 202.926 204.890 1.00 42.61 C
ATOM 5606 O TYR B 91 217.616 204.040 204.812 1.00 42.61 O
ATOM 5607 CB TYR B 91 218.844 201.513 205.981 1.00 42.61 C
ATOM 5608 CG TYR B 91 219.676 200.249 206.010 1.00 42.61 C
ATOM 5609 CD1 TYR B 91 219.398 199.186 205.169 1.00 42.61 C
ATOM 5610 CD2 TYR B 91 220.748 200.127 206.880 1.00 42.61 C
ATOM 5611 CE1 TYR B 91 220.164 198.042 205.189 1.00 42.61 C
ATOM 5612 CE2 TYR B 91 221.516 198.982 206.908 1.00 42.61 C
ATOM 5613 CZ TYR B 91 221.216 197.943 206.060 1.00 42.61 C
ATOM 5614 OH TYR B 91 221.969 196.795 206.074 1.00 42.61 O
ATOM 5615 N ARG B 92 215.790 202.759 205.087 1.00 39.21 N
ATOM 5616 CA ARG B 92 214.889 203.900 205.120 1.00 39.21 C
ATOM 5617 C ARG B 92 213.749 203.629 206.091 1.00 39.21 C
ATOM 5618 O ARG B 92 213.591 202.523 206.610 1.00 39.21 O
ATOM 5619 CB ARG B 92 214.380 204.224 203.717 1.00 39.21 C
ATOM 5620 CG ARG B 92 213.549 203.138 203.094 1.00 39.21 C
ATOM 5621 CD ARG B 92 213.313 203.450 201.636 1.00 39.21 C
ATOM 5622 NE ARG B 92 212.376 202.519 201.022 1.00 39.21 N
ATOM 5623 CZ ARG B 92 212.721 201.345 200.509 1.00 39.21 C
ATOM 5624 NH1 ARG B 92 213.985 200.951 200.544 1.00 39.21 N
ATOM 5625 NH2 ARG B 92 211.801 200.562 199.966 1.00 39.21 N
ATOM 5626 N VAL B 93 212.954 204.668 206.340 1.00 32.88 N

ATOM 5627 CA VAL B 93 212.002 204.689 207.446 1.00 32.88 C
ATOM 5628 C VAL B 93 210.590 204.932 206.920 1.00 32.88 C
ATOM 5629 O VAL B 93 209.833 205.730 207.483 1.00 32.88 O
ATOM 5630 CB VAL B 93 212.405 205.735 208.503 1.00 32.88 C
ATOM 5631 CG1 VAL B 93 211.560 205.588 209.763 1.00 32.88 C
ATOM 5632 CG2 VAL B 93 213.871 205.602 208.833 1.00 32.88 C
ATOM 5633 N CYS B 94 210.227 204.276 205.817 1.00 41.65 N
ATOM 5634 CA CYS B 94 208.983 204.594 205.122 1.00 41.65 C
ATOM 5635 C CYS B 94 207.772 204.235 205.972 1.00 41.65 C
ATOM 5636 O CYS B 94 207.076 203.255 205.692 1.00 41.65 O
ATOM 5637 CB CYS B 94 208.891 203.824 203.803 1.00 41.65 C
ATOM 5638 SG CYS B 94 210.186 204.142 202.601 1.00 41.65 S
ATOM 5639 N SER B 95 207.515 205.018 207.008 1.00 42.76 N
ATOM 5640 CA SER B 95 206.404 204.770 207.918 1.00 42.76 C
ATOM 5641 C SER B 95 205.534 205.992 208.162 1.00 42.76 C
ATOM 5642 O SER B 95 204.322 205.849 208.331 1.00 42.76 O
ATOM 5643 CB SER B 95 206.936 204.247 209.260 1.00 42.76 C
ATOM 5644 OG SER B 95 205.880 204.056 210.184 1.00 42.76 O
ATOM 5645 N MET B 96 206.118 207.183 208.195 1.00 45.81 N
ATOM 5646 CA MET B 96 205.425 208.380 208.644 1.00 45.81 C
ATOM 5647 C MET B 96 205.097 209.285 207.465 1.00 45.81 C
ATOM 5648 O MET B 96 205.886 209.411 206.525 1.00 45.81 O
ATOM 5649 CB MET B 96 206.277 209.133 209.665 1.00 45.81 C
ATOM 5650 CG MET B 96 207.576 209.670 209.098 1.00 45.81 C
ATOM 5651 SD MET B 96 208.672 210.335 210.365 1.00 45.81 S
ATOM 5652 CE MET B 96 209.302 208.832 211.106 1.00 45.81 C
ATOM 5653 N ALA B 97 203.928 209.917 207.525 1.00 44.27 N
ATOM 5654 CA ALA B 97 203.488 210.810 206.465 1.00 44.27 C
ATOM 5655 C ALA B 97 202.446 211.764 207.024 1.00 44.27 C
ATOM 5656 O ALA B 97 201.857 211.526 208.080 1.00 44.27 O
ATOM 5657 CB ALA B 97 202.923 210.038 205.271 1.00 44.27 C
ATOM 5658 N GLN B 98 202.220 212.841 206.282 1.00 45.88 N
ATOM 5659 CA GLN B 98 201.385 213.964 206.688 1.00 45.88 C
ATOM 5660 C GLN B 98 200.927 214.664 205.412 1.00 45.88 C

ATOM 5661 O GLN B 98 200.930 214.062 204.333 1.00 45.88 O
ATOM 5662 CB GLN B 98 202.137 214.891 207.659 1.00 45.88 C
ATOM 5663 CG GLN B 98 202.337 214.306 209.043 1.00 45.88 C
ATOM 5664 CD GLN B 98 203.132 215.214 209.950 1.00 45.88 C
ATOM 5665 OE1 GLN B 98 203.659 216.235 209.514 1.00 45.88 O
ATOM 5666 NE2 GLN B 98 203.212 214.854 211.225 1.00 45.88 N
ATOM 5667 N GLY B 99 200.519 215.921 205.530 1.00 45.24 N
ATOM 5668 CA GLY B 99 200.042 216.634 204.365 1.00 45.24 C
ATOM 5669 C GLY B 99 201.169 217.015 203.425 1.00 45.24 C
ATOM 5670 O GLY B 99 202.071 216.209 203.176 1.00 45.24 O
ATOM 5671 N THR B 100 201.122 218.231 202.891 1.00 43.08 N
ATOM 5672 CA THR B 100 201.940 218.774 201.813 1.00 43.08 C
ATOM 5673 C THR B 100 201.464 218.281 200.449 1.00 43.08 C
ATOM 5674 O THR B 100 201.927 218.800 199.433 1.00 43.08 O
ATOM 5675 CB THR B 100 203.441 218.440 201.943 1.00 43.08 C
ATOM 5676 OG1 THR B 100 203.635 217.040 201.720 1.00 43.08 O
ATOM 5677 CG2 THR B 100 203.952 218.778 203.327 1.00 43.08 C
ATOM 5678 N ASP B 101 200.550 217.312 200.387 1.00 44.09 N
ATOM 5679 CA ASP B 101 199.937 216.865 199.141 1.00 44.09 C
ATOM 5680 C ASP B 101 198.887 215.797 199.420 1.00 44.09 C
ATOM 5681 O ASP B 101 198.999 215.054 200.400 1.00 44.09 O
ATOM 5682 CB ASP B 101 201.002 216.349 198.173 1.00 44.09 C
ATOM 5683 CG ASP B 101 201.885 215.298 198.794 1.00 44.09 C
ATOM 5684 OD1 ASP B 101 201.702 215.003 199.993 1.00 44.09 O
ATOM 5685 OD2 ASP B 101 202.772 214.778 198.089 1.00 44.09 O
ATOM 5686 N LEU B 102 197.875 215.698 198.564 1.00 43.15 N
ATOM 5687 CA LEU B 102 196.762 214.793 198.808 1.00 43.15 C
ATOM 5688 C LEU B 102 196.328 214.169 197.491 1.00 43.15 C
ATOM 5689 O LEU B 102 196.462 214.781 196.429 1.00 43.15 O
ATOM 5690 CB LEU B 102 195.575 215.521 199.451 1.00 43.15 C
ATOM 5691 CG LEU B 102 195.604 215.906 200.932 1.00 43.15 C
ATOM 5692 CD1 LEU B 102 196.513 217.089 201.172 1.00 43.15 C
ATOM 5693 CD2 LEU B 102 194.201 216.221 201.412 1.00 43.15 C
ATOM 5694 N ILE B 103 195.806 212.944 197.566 1.00 44.36 N

ATOM 5695 CA ILE B 103 195.270 212.269 196.387 1.00 44.36 C
ATOM 5696 C ILE B 103 194.085 211.387 196.765 1.00 44.36 C
ATOM 5697 O ILE B 103 194.197 210.502 197.620 1.00 44.36 O
ATOM 5698 CB ILE B 103 196.349 211.441 195.662 1.00 44.36 C
ATOM 5699 CG1 ILE B 103 196.948 210.385 196.587 1.00 44.36 C
ATOM 5700 CG2 ILE B 103 197.437 212.331 195.083 1.00 44.36 C
ATOM 5701 CD1 ILE B 103 197.813 209.379 195.863 1.00 44.36 C
ATOM 5702 N ARG B 104 192.944 211.628 196.129 1.00 56.18 N
ATOM 5703 CA ARG B 104 191.762 210.790 196.260 1.00 56.18 C
ATOM 5704 C ARG B 104 191.772 209.727 195.162 1.00 56.18 C
ATOM 5705 O ARG B 104 192.793 209.487 194.513 1.00 56.18 O
ATOM 5706 CB ARG B 104 190.500 211.642 196.208 1.00 56.18 C
ATOM 5707 CG ARG B 104 190.333 212.349 194.888 1.00 56.18 C
ATOM 5708 CD ARG B 104 189.062 213.161 194.839 1.00 56.18 C
ATOM 5709 NE ARG B 104 188.943 213.858 193.566 1.00 56.18 N
ATOM 5710 CZ ARG B 104 187.890 214.579 193.207 1.00 56.18 C
ATOM 5711 NH1 ARG B 104 186.852 214.684 194.022 1.00 56.18 N
ATOM 5712 NH2 ARG B 104 187.868 215.182 192.029 1.00 56.18 N
ATOM 5713 N PHE B 105 190.630 209.066 194.944 1.00 61.51 N
ATOM 5714 CA PHE B 105 190.535 208.014 193.941 1.00 61.51 C
ATOM 5715 C PHE B 105 189.443 208.212 192.895 1.00 61.51 C
ATOM 5716 O PHE B 105 189.520 207.576 191.839 1.00 61.51 O
ATOM 5717 CB PHE B 105 190.334 206.648 194.613 1.00 61.51 C
ATOM 5718 CG PHE B 105 191.555 206.141 195.324 1.00 61.51 C
ATOM 5719 CD1 PHE B 105 192.561 205.498 194.624 1.00 61.51 C
ATOM 5720 CD2 PHE B 105 191.699 206.312 196.689 1.00 61.51 C
ATOM 5721 CE1 PHE B 105 193.684 205.029 195.273 1.00 61.51 C
ATOM 5722 CE2 PHE B 105 192.821 205.846 197.344 1.00 61.51 C
ATOM 5723 CZ PHE B 105 193.815 205.203 196.634 1.00 61.51 C
ATOM 5724 N GLU B 106 188.443 209.063 193.144 1.00 78.59 N
ATOM 5725 CA GLU B 106 187.494 209.494 192.111 1.00 78.59 C
ATOM 5726 C GLU B 106 186.732 208.305 191.514 1.00 78.59 C
ATOM 5727 O GLU B 106 186.962 207.894 190.375 1.00 78.59 O
ATOM 5728 CB GLU B 106 188.214 210.290 191.017 1.00 78.59 C

ATOM 5729 CG GLU B 106 187.295 210.821 189.933 1.00 78.59 C
ATOM 5730 CD GLU B 106 186.286 211.812 190.469 1.00 78.59 C
ATOM 5731 OE1 GLU B 106 186.564 212.437 191.513 1.00 78.59 O
ATOM 5732 OE2 GLU B 106 185.215 211.966 189.847 1.00 78.59 O
ATOM 5733 N ARG B 107 185.843 207.748 192.347 1.00 86.99 N
ATOM 5734 CA ARG B 107 185.114 206.512 192.063 1.00 86.99 C
ATOM 5735 C ARG B 107 184.594 206.393 190.629 1.00 86.99 C
ATOM 5736 O ARG B 107 184.981 205.479 189.893 1.00 86.99 O
ATOM 5737 CB ARG B 107 183.930 206.378 193.030 1.00 86.99 C
ATOM 5738 CG ARG B 107 184.272 205.981 194.458 1.00 86.99 C
ATOM 5739 CD ARG B 107 184.433 207.193 195.358 1.00 86.99 C
ATOM 5740 NE ARG B 107 184.480 206.816 196.769 1.00 86.99 N
ATOM 5741 CZ ARG B 107 185.598 206.667 197.473 1.00 86.99 C
ATOM 5742 NH1 ARG B 107 185.540 206.314 198.749 1.00 86.99 N
ATOM 5743 NH2 ARG B 107 186.775 206.874 196.898 1.00 86.99 N
ATOM 5744 N ASN B 108 183.725 207.311 190.209 1.00106.28 N
ATOM 5745 CA ASN B 108 183.007 207.144 188.948 1.00106.28 C
ATOM 5746 C ASN B 108 183.874 207.553 187.757 1.00106.28 C
ATOM 5747 O ASN B 108 184.264 208.717 187.622 1.00106.28 O
ATOM 5748 CB ASN B 108 181.693 207.925 188.967 1.00106.28 C
ATOM 5749 CG ASN B 108 181.877 209.387 189.322 1.00106.28 C
ATOM 5750 OD1 ASN B 108 182.987 209.844 189.593 1.00106.28 O
ATOM 5751 ND2 ASN B 108 180.782 210.138 189.299 1.00106.28 N
ATOM 5752 N ILE B 109 184.168 206.582 186.893 1.00113.07 N
ATOM 5753 CA ILE B 109 184.957 206.780 185.682 1.00113.07 C
ATOM 5754 C ILE B 109 184.112 206.330 184.495 1.00113.07 C
ATOM 5755 O ILE B 109 184.618 205.681 183.573 1.00113.07 O
ATOM 5756 CB ILE B 109 186.296 206.020 185.747 1.00113.07 C
ATOM 5757 CG1 ILE B 109 187.022 206.349 187.047 1.00113.07 C
ATOM 5758 CG2 ILE B 109 187.210 206.419 184.593 1.00113.07 C
ATOM 5759 CD1 ILE B 109 187.355 207.814 187.200 1.00113.07 C
ATOM 5760 N VAL B 110 182.807 206.620 184.552 1.00126.39 N
ATOM 5761 CA VAL B 110 181.797 206.129 183.613 1.00126.39 C
ATOM 5762 C VAL B 110 182.238 206.264 182.160 1.00126.39 C

ATOM 5763 O VAL B 110 182.617 207.350 181.704 1.00126.39 O
ATOM 5764 CB VAL B 110 180.454 206.851 183.832 1.00126.39 C
ATOM 5765 CG1 VAL B 110 179.918 206.559 185.223 1.00126.39 C
ATOM 5766 CG2 VAL B 110 180.610 208.352 183.622 1.00126.39 C
ATOM 5767 N CYS B 111 182.192 205.153 181.431 1.00128.79 N
ATOM 5768 CA CYS B 111 182.693 205.073 180.070 1.00128.79 C
ATOM 5769 C CYS B 111 181.569 205.341 179.073 1.00128.79 C
ATOM 5770 O CYS B 111 180.388 205.394 179.422 1.00128.79 O
ATOM 5771 CB CYS B 111 183.318 203.701 179.819 1.00128.79 C
ATOM 5772 SG CYS B 111 184.693 203.305 180.924 1.00128.79 S
ATOM 5773 N THR B 112 181.951 205.506 177.810 1.00133.63 N
ATOM 5774 CA THR B 112 181.004 205.792 176.742 1.00133.63 C
ATOM 5775 C THR B 112 181.247 204.844 175.579 1.00133.63 C
ATOM 5776 O THR B 112 182.391 204.650 175.156 1.00133.63 O
ATOM 5777 CB THR B 112 181.112 207.251 176.274 1.00133.63 C
ATOM 5778 OG1 THR B 112 180.103 207.517 175.291 1.00133.63 O
ATOM 5779 CG2 THR B 112 182.488 207.536 175.685 1.00133.63 C
ATOM 5780 N SER B 113 180.173 204.245 175.079 1.00132.61 N
ATOM 5781 CA SER B 113 180.240 203.413 173.890 1.00132.61 C
ATOM 5782 C SER B 113 180.040 204.296 172.660 1.00132.61 C
ATOM 5783 O SER B 113 180.056 205.527 172.743 1.00132.61 O
ATOM 5784 CB SER B 113 179.214 202.286 173.974 1.00132.61 C
ATOM 5785 OG SER B 113 179.511 201.407 175.045 1.00132.61 O
ATOM 5786 N MET B 114 179.848 203.679 171.502 1.00130.30 N
ATOM 5787 CA MET B 114 179.723 204.395 170.242 1.00130.30 C
ATOM 5788 C MET B 114 178.521 203.852 169.470 1.00130.30 C
ATOM 5789 O MET B 114 177.938 202.825 169.824 1.00130.30 O
ATOM 5790 CB MET B 114 181.019 204.267 169.433 1.00130.30 C
ATOM 5791 CG MET B 114 181.113 205.151 168.200 1.00130.30 C
ATOM 5792 SD MET B 114 182.621 204.863 167.262 1.00130.30 S
ATOM 5793 CE MET B 114 182.244 203.274 166.527 1.00130.30 C
ATOM 5794 N LYS B 115 178.152 204.555 168.403 1.00135.43 N
ATOM 5795 CA LYS B 115 177.082 204.116 167.520 1.00135.43 C
ATOM 5796 C LYS B 115 177.690 203.641 166.202 1.00135.43 C

ATOM 5797 O LYS B 115 177.786 204.409 165.240 1.00135.43 O
ATOM 5798 CB LYS B 115 176.049 205.242 167.342 1.00135.43 C
ATOM 5799 CG LYS B 115 176.552 206.580 166.771 1.00135.43 C
ATOM 5800 CD LYS B 115 176.192 206.767 165.296 1.00135.43 C
ATOM 5801 CE LYS B 115 176.615 208.124 164.759 1.00135.43 C
ATOM 5802 NZ LYS B 115 176.295 208.263 163.308 1.00135.43 N
ATOM 5803 N PRO B 116 178.157 202.392 166.123 1.00135.87 N
ATOM 5804 CA PRO B 116 178.696 201.920 164.844 1.00135.87 C
ATOM 5805 C PRO B 116 177.563 201.696 163.864 1.00135.87 C
ATOM 5806 O PRO B 116 176.902 200.652 163.881 1.00135.87 O
ATOM 5807 CB PRO B 116 179.397 200.609 165.219 1.00135.87 C
ATOM 5808 CG PRO B 116 178.647 200.130 166.416 1.00135.87 C
ATOM 5809 CD PRO B 116 178.234 201.362 167.174 1.00135.87 C
ATOM 5810 N ILE B 117 177.337 202.684 163.003 1.00138.25 N
ATOM 5811 CA ILE B 117 176.231 202.636 162.059 1.00138.25 C
ATOM 5812 C ILE B 117 176.525 203.538 160.863 1.00138.25 C
ATOM 5813 O ILE B 117 176.692 204.754 161.024 1.00138.25 O
ATOM 5814 CB ILE B 117 174.923 203.024 162.780 1.00138.25 C
ATOM 5815 CG1 ILE B 117 173.701 202.820 161.887 1.00138.25 C
ATOM 5816 CG2 ILE B 117 174.987 204.441 163.340 1.00138.25 C
ATOM 5817 CD1 ILE B 117 172.389 202.930 162.631 1.00138.25 C
ATOM 5818 N ASN B 118 176.594 202.954 159.659 1.00145.83 N
ATOM 5819 CA ASN B 118 176.569 203.708 158.398 1.00145.83 C
ATOM 5820 C ASN B 118 177.647 204.796 158.348 1.00145.83 C
ATOM 5821 O ASN B 118 177.451 205.868 157.773 1.00145.83 O
ATOM 5822 CB ASN B 118 175.173 204.301 158.192 1.00145.83 C
ATOM 5823 CG ASN B 118 174.113 203.228 157.999 1.00145.83 C
ATOM 5824 OD1 ASN B 118 173.605 202.689 158.979 1.00145.83 O
ATOM 5825 ND2 ASN B 118 173.724 202.948 156.755 1.00145.83 N
ATOM 5826 N GLU B 119 178.795 204.518 158.969 1.00127.67 N
ATOM 5827 CA GLU B 119 179.812 205.540 159.184 1.00127.67 C
ATOM 5828 C GLU B 119 181.184 205.023 158.777 1.00127.67 C
ATOM 5829 O GLU B 119 181.432 203.815 158.733 1.00127.67 O
ATOM 5830 CB GLU B 119 179.858 205.996 160.650 1.00127.67 C

ATOM 5831 CG GLU B 119 180.390 204.938 161.612 1.00127.67 C
ATOM 5832 CD GLU B 119 180.377 205.393 163.062 1.00127.67 C
ATOM 5833 OE1 GLU B 119 179.919 206.523 163.332 1.00127.67 O
ATOM 5834 OE2 GLU B 119 180.827 204.618 163.933 1.00127.67 O
ATOM 5835 N ASP B 120 182.078 205.968 158.491 1.00112.66 N
ATOM 5836 CA ASP B 120 183.486 205.714 158.218 1.00112.66 C
ATOM 5837 C ASP B 120 184.330 206.480 159.234 1.00112.66 C
ATOM 5838 O ASP B 120 183.810 207.048 160.199 1.00112.66 O
ATOM 5839 CB ASP B 120 183.852 206.087 156.774 1.00112.66 C
ATOM 5840 CG ASP B 120 183.552 207.537 156.446 1.00112.66 C
ATOM 5841 OD1 ASP B 120 182.983 208.248 157.301 1.00112.66 O
ATOM 5842 OD2 ASP B 120 183.889 207.969 155.324 1.00112.66 O
ATOM 5843 N LEU B 121 185.645 206.499 159.020 1.00 98.47 N
ATOM 5844 CA LEU B 121 186.551 207.009 160.042 1.00 98.47 C
ATOM 5845 C LEU B 121 187.902 207.336 159.421 1.00 98.47 C
ATOM 5846 O LEU B 121 188.267 206.812 158.365 1.00 98.47 O
ATOM 5847 CB LEU B 121 186.695 206.001 161.189 1.00 98.47 C
ATOM 5848 CG LEU B 121 187.439 204.688 160.928 1.00 98.47 C
ATOM 5849 CD1 LEU B 121 187.737 203.983 162.237 1.00 98.47 C
ATOM 5850 CD2 LEU B 121 186.649 203.770 160.009 1.00 98.47 C
ATOM 5851 N ASP B 122 188.640 208.217 160.099 1.00 99.13 N
ATOM 5852 CA ASP B 122 189.929 208.731 159.660 1.00 99.13 C
ATOM 5853 C ASP B 122 191.044 208.216 160.570 1.00 99.13 C
ATOM 5854 O ASP B 122 190.827 207.362 161.437 1.00 99.13 O
ATOM 5855 CB ASP B 122 189.902 210.262 159.625 1.00 99.13 C
ATOM 5856 CG ASP B 122 189.012 210.806 158.528 1.00 99.13 C
ATOM 5857 OD1 ASP B 122 188.847 210.119 157.499 1.00 99.13 O
ATOM 5858 OD2 ASP B 122 188.481 211.924 158.692 1.00 99.13 O
ATOM 5859 N GLU B 123 192.253 208.738 160.366 1.00103.28 N
ATOM 5860 CA GLU B 123 193.400 208.357 161.182 1.00103.28 C
ATOM 5861 C GLU B 123 194.467 209.434 161.073 1.00103.28 C
ATOM 5862 O GLU B 123 194.778 209.889 159.968 1.00103.28 O
ATOM 5863 CB GLU B 123 193.958 206.999 160.745 1.00103.28 C
ATOM 5864 CG GLU B 123 194.525 206.981 159.339 1.00103.28 C

ATOM 5865 CD GLU B 123 195.010 205.606 158.930 1.00103.28 C
ATOM 5866 OE1 GLU B 123 194.893 204.669 159.747 1.00103.28 O
ATOM 5867 OE2 GLU B 123 195.505 205.460 157.793 1.00103.28 O
ATOM 5868 N GLY B 124 195.016 209.841 162.211 1.00104.63 N
ATOM 5869 CA GLY B 124 196.041 210.870 162.235 1.00104.63 C
ATOM 5870 C GLY B 124 196.899 210.753 163.473 1.00104.63 C
ATOM 5871 O GLY B 124 196.428 210.348 164.540 1.00104.63 O
ATOM 5872 N ILE B 125 198.172 211.119 163.330 1.00111.88 N
ATOM 5873 CA ILE B 125 199.136 211.017 164.421 1.00111.88 C
ATOM 5874 C ILE B 125 199.020 212.242 165.319 1.00111.88 C
ATOM 5875 O ILE B 125 198.922 213.376 164.837 1.00111.88 O
ATOM 5876 CB ILE B 125 200.562 210.853 163.859 1.00111.88 C
ATOM 5877 CG1 ILE B 125 200.934 212.020 162.940 1.00111.88 C
ATOM 5878 CG2 ILE B 125 200.685 209.549 163.093 1.00111.88 C
ATOM 5879 CD1 ILE B 125 201.620 213.172 163.636 1.00111.88 C
ATOM 5880 N MET B 126 199.043 212.019 166.634 1.00115.54 N
ATOM 5881 CA MET B 126 198.814 213.094 167.591 1.00115.54 C
ATOM 5882 C MET B 126 199.605 212.843 168.865 1.00115.54 C
ATOM 5883 O MET B 126 199.759 211.697 169.296 1.00115.54 O
ATOM 5884 CB MET B 126 197.320 213.238 167.915 1.00115.54 C
ATOM 5885 CG MET B 126 196.670 212.020 168.567 1.00115.54 C
ATOM 5886 SD MET B 126 196.777 211.958 170.366 1.00115.54 S
ATOM 5887 CE MET B 126 196.661 210.193 170.645 1.00115.54 C
ATOM 5888 N VAL B 127 200.096 213.927 169.464 1.00112.93 N
ATOM 5889 CA VAL B 127 200.777 213.898 170.751 1.00112.93 C
ATOM 5890 C VAL B 127 199.960 214.714 171.741 1.00112.93 C
ATOM 5891 O VAL B 127 199.381 215.745 171.380 1.00112.93 O
ATOM 5892 CB VAL B 127 202.216 214.444 170.649 1.00112.93 C
ATOM 5893 CG1 VAL B 127 203.041 213.579 169.717 1.00112.93 C
ATOM 5894 CG2 VAL B 127 202.199 215.885 170.169 1.00112.93 C
ATOM 5895 N VAL B 128 199.915 214.254 172.991 1.00114.24 N
ATOM 5896 CA VAL B 128 199.080 214.880 174.010 1.00114.24 C
ATOM 5897 C VAL B 128 199.954 215.483 175.100 1.00114.24 C
ATOM 5898 O VAL B 128 201.180 215.322 175.090 1.00114.24 O

ATOM 5899 CB VAL B 128 198.089 213.866 174.608 1.00114.24 C
ATOM 5900 CG1 VAL B 128 197.191 213.306 173.522 1.00114.24 C
ATOM 5901 CG2 VAL B 128 198.839 212.752 175.316 1.00114.24 C
ATOM 5902 N TYR B 129 199.330 216.174 176.049 1.00112.65 N
ATOM 5903 CA TYR B 129 200.043 216.751 177.182 1.00112.65 C
ATOM 5904 C TYR B 129 199.014 217.283 178.172 1.00112.65 C
ATOM 5905 O TYR B 129 197.814 217.324 177.887 1.00112.65 O
ATOM 5906 CB TYR B 129 201.023 217.836 176.732 1.00112.65 C
ATOM 5907 CG TYR B 129 200.398 219.028 176.056 1.00112.65 C
ATOM 5908 CD1 TYR B 129 200.147 219.023 174.693 1.00112.65 C
ATOM 5909 CD2 TYR B 129 200.097 220.175 176.773 1.00112.65 C
ATOM 5910 CE1 TYR B 129 199.587 220.117 174.068 1.00112.65 C
ATOM 5911 CE2 TYR B 129 199.539 221.275 176.160 1.00112.65 C
ATOM 5912 CZ TYR B 129 199.286 221.242 174.806 1.00112.65 C
ATOM 5913 OH TYR B 129 198.729 222.337 174.188 1.00112.65 O
ATOM 5914 N LYS B 130 199.500 217.685 179.346 1.00111.68 N
ATOM 5915 CA LYS B 130 198.646 217.931 180.499 1.00111.68 C
ATOM 5916 C LYS B 130 199.014 219.253 181.166 1.00111.68 C
ATOM 5917 O LYS B 130 200.125 219.766 181.013 1.00111.68 O
ATOM 5918 CB LYS B 130 198.755 216.761 181.493 1.00111.68 C
ATOM 5919 CG LYS B 130 197.830 216.821 182.693 1.00111.68 C
ATOM 5920 CD LYS B 130 197.916 215.530 183.496 1.00111.68 C
ATOM 5921 CE LYS B 130 199.071 215.559 184.485 1.00111.68 C
ATOM 5922 NZ LYS B 130 200.356 215.142 183.856 1.00111.68 N
ATOM 5923 N ARG B 131 198.053 219.800 181.911 1.00116.31 N
ATOM 5924 CA ARG B 131 198.208 221.065 182.618 1.00116.31 C
ATOM 5925 C ARG B 131 198.999 220.877 183.911 1.00116.31 C
ATOM 5926 O ARG B 131 199.003 219.796 184.507 1.00116.31 O
ATOM 5927 CB ARG B 131 196.829 221.655 182.926 1.00116.31 C
ATOM 5928 CG ARG B 131 196.818 222.959 183.717 1.00116.31 C
ATOM 5929 CD ARG B 131 197.337 224.133 182.910 1.00116.31 C
ATOM 5930 NE ARG B 131 197.267 225.387 183.657 1.00116.31 N
ATOM 5931 CZ ARG B 131 197.779 226.540 183.237 1.00116.31 C
ATOM 5932 NH1 ARG B 131 197.666 227.628 183.988 1.00116.31 N

ATOM 5933 NH2 ARG B 131 198.398 226.610 182.069 1.00116.31 N
ATOM 5934 N ASN B 132 199.673 221.946 184.346 1.00108.97 N
ATOM 5935 CA ASN B 132 200.472 221.926 185.566 1.00108.97 C
ATOM 5936 C ASN B 132 200.142 223.126 186.446 1.00108.97 C
ATOM 5937 O ASN B 132 199.848 224.220 185.957 1.00108.97 O
ATOM 5938 CB ASN B 132 201.972 221.906 185.256 1.00108.97 C
ATOM 5939 CG ASN B 132 202.434 220.572 184.710 1.00108.97 C
ATOM 5940 OD1 ASN B 132 202.023 219.517 185.192 1.00108.97 O
ATOM 5941 ND2 ASN B 132 203.292 220.611 183.698 1.00108.97 N
ATOM 5942 N ILE B 133 200.201 222.897 187.759 1.00 96.05 N
ATOM 5943 CA ILE B 133 199.790 223.859 188.779 1.00 96.05 C
ATOM 5944 C ILE B 133 200.951 224.102 189.742 1.00 96.05 C
ATOM 5945 O ILE B 133 200.752 224.156 190.961 1.00 96.05 O
ATOM 5946 CB ILE B 133 198.526 223.379 189.516 1.00 96.05 C
ATOM 5947 CG1 ILE B 133 197.457 222.975 188.503 1.00 96.05 C
ATOM 5948 CG2 ILE B 133 197.942 224.496 190.371 1.00 96.05 C
ATOM 5949 CD1 ILE B 133 197.018 224.102 187.593 1.00 96.05 C
ATOM 5950 N VAL B 134 202.168 224.204 189.196 1.00 84.26 N
ATOM 5951 CA VAL B 134 203.454 224.128 189.897 1.00 84.26 C
ATOM 5952 C VAL B 134 203.472 224.833 191.252 1.00 84.26 C
ATOM 5953 O VAL B 134 202.961 225.949 191.398 1.00 84.26 O
ATOM 5954 CB VAL B 134 204.566 224.695 188.994 1.00 84.26 C
ATOM 5955 CG1 VAL B 134 205.895 224.717 189.726 1.00 84.26 C
ATOM 5956 CG2 VAL B 134 204.667 223.889 187.709 1.00 84.26 C
ATOM 5957 N ALA B 135 204.061 224.169 192.250 1.00 64.04 N
ATOM 5958 CA ALA B 135 203.949 224.529 193.657 1.00 64.04 C
ATOM 5959 C ALA B 135 205.095 225.443 194.096 1.00 64.04 C
ATOM 5960 O ALA B 135 205.823 226.008 193.277 1.00 64.04 O
ATOM 5961 CB ALA B 135 203.888 223.263 194.507 1.00 64.04 C
ATOM 5962 N HIS B 136 205.258 225.599 195.412 1.00 52.42 N
ATOM 5963 CA HIS B 136 206.193 226.556 195.988 1.00 52.42 C
ATOM 5964 C HIS B 136 206.704 226.011 197.319 1.00 52.42 C
ATOM 5965 O HIS B 136 205.950 225.371 198.056 1.00 52.42 O
ATOM 5966 CB HIS B 136 205.497 227.910 196.177 1.00 52.42 C

ATOM 5967 CG HIS B 136 206.430 229.056 196.400 1.00 52.42 C
ATOM 5968 ND1 HIS B 136 205.996 230.288 196.836 1.00 52.42 N
ATOM 5969 CD2 HIS B 136 207.768 229.168 196.224 1.00 52.42 C
ATOM 5970 CE1 HIS B 136 207.027 231.108 196.930 1.00 52.42 C
ATOM 5971 NE2 HIS B 136 208.114 230.452 196.566 1.00 52.42 N
ATOM 5972 N THR B 137 207.982 226.258 197.624 1.00 45.75 N
ATOM 5973 CA THR B 137 208.611 225.755 198.849 1.00 45.75 C
ATOM 5974 C THR B 137 209.568 226.805 199.395 1.00 45.75 C
ATOM 5975 O THR B 137 210.451 227.267 198.667 1.00 45.75 O
ATOM 5976 CB THR B 137 209.365 224.446 198.590 1.00 45.75 C
ATOM 5977 OG1 THR B 137 210.396 224.672 197.623 1.00 45.75 O
ATOM 5978 CG2 THR B 137 208.426 223.369 198.078 1.00 45.75 C
ATOM 5979 N PHE B 138 209.410 227.181 200.679 1.00 40.03 N
ATOM 5980 CA PHE B 138 210.128 228.349 201.181 1.00 40.03 C
ATOM 5981 C PHE B 138 210.642 228.294 202.623 1.00 40.03 C
ATOM 5982 O PHE B 138 211.100 229.328 203.125 1.00 40.03 O
ATOM 5983 CB PHE B 138 209.251 229.594 200.994 1.00 40.03 C
ATOM 5984 CG PHE B 138 207.896 229.489 201.629 1.00 40.03 C
ATOM 5985 CD1 PHE B 138 206.840 228.924 200.939 1.00 40.03 C
ATOM 5986 CD2 PHE B 138 207.668 229.984 202.894 1.00 40.03 C
ATOM 5987 CE1 PHE B 138 205.597 228.829 201.507 1.00 40.03 C
ATOM 5988 CE2 PHE B 138 206.419 229.896 203.462 1.00 40.03 C
ATOM 5989 CZ PHE B 138 205.387 229.315 202.766 1.00 40.03 C
ATOM 5990 N LYS B 139 210.624 227.145 203.303 1.00 35.09 N
ATOM 5991 CA LYS B 139 211.368 226.966 204.559 1.00 35.09 C
ATOM 5992 C LYS B 139 210.900 227.915 205.673 1.00 35.09 C
ATOM 5993 O LYS B 139 211.582 228.871 206.041 1.00 35.09 O
ATOM 5994 CB LYS B 139 212.873 227.137 204.324 1.00 35.09 C
ATOM 5995 CG LYS B 139 213.512 226.042 203.496 1.00 35.09 C
ATOM 5996 CD LYS B 139 215.011 226.257 203.362 1.00 35.09 C
ATOM 5997 CE LYS B 139 215.666 225.108 202.615 1.00 35.09 C
ATOM 5998 NZ LYS B 139 215.219 225.055 201.197 1.00 35.09 N
ATOM 5999 N VAL B 140 209.704 227.635 206.194 1.00 31.32 N
ATOM 6000 CA VAL B 140 209.183 228.341 207.366 1.00 31.32 C

ATOM 6001 C VAL B 140 209.989 227.987 208.611 1.00 31.32 C
ATOM 6002 O VAL B 140 210.801 227.057 208.593 1.00 31.32 O
ATOM 6003 CB VAL B 140 207.697 228.024 207.599 1.00 31.32 C
ATOM 6004 CG1 VAL B 140 206.877 228.416 206.396 1.00 31.32 C
ATOM 6005 CG2 VAL B 140 207.519 226.558 207.923 1.00 31.32 C
ATOM 6006 N ARG B 141 209.769 228.728 209.699 1.00 31.87 N
ATOM 6007 CA ARG B 141 210.479 228.525 210.963 1.00 31.87 C
ATOM 6008 C ARG B 141 209.474 228.585 212.104 1.00 31.87 C
ATOM 6009 O ARG B 141 208.856 229.628 212.328 1.00 31.87 O
ATOM 6010 CB ARG B 141 211.563 229.581 211.166 1.00 31.87 C
ATOM 6011 CG ARG B 141 212.708 229.503 210.191 1.00 31.87 C
ATOM 6012 CD ARG B 141 213.815 230.449 210.605 1.00 31.87 C
ATOM 6013 NE ARG B 141 213.363 231.836 210.606 1.00 31.87 N
ATOM 6014 CZ ARG B 141 213.388 232.627 209.540 1.00 31.87 C
ATOM 6015 NH1 ARG B 141 213.841 232.166 208.384 1.00 31.87 N
ATOM 6016 NH2 ARG B 141 212.957 233.876 209.629 1.00 31.87 N
ATOM 6017 N VAL B 142 209.313 227.481 212.829 1.00 33.41 N
ATOM 6018 CA VAL B 142 208.353 227.390 213.924 1.00 33.41 C
ATOM 6019 C VAL B 142 209.087 227.494 215.252 1.00 33.41 C
ATOM 6020 O VAL B 142 210.105 226.825 215.462 1.00 33.41 O
ATOM 6021 CB VAL B 142 207.550 226.083 213.851 1.00 33.41 C
ATOM 6022 CG1 VAL B 142 206.653 225.961 215.061 1.00 33.41 C
ATOM 6023 CG2 VAL B 142 206.735 226.039 212.577 1.00 33.41 C
ATOM 6024 N TYR B 143 208.570 228.326 216.150 1.00 35.46 N
ATOM 6025 CA TYR B 143 209.082 228.448 217.506 1.00 35.46 C
ATOM 6026 C TYR B 143 208.142 227.748 218.479 1.00 35.46 C
ATOM 6027 O TYR B 143 206.991 227.450 218.158 1.00 35.46 O
ATOM 6028 CB TYR B 143 209.240 229.918 217.892 1.00 35.46 C
ATOM 6029 CG TYR B 143 210.258 230.654 217.065 1.00 35.46 C
ATOM 6030 CD1 TYR B 143 211.605 230.580 217.362 1.00 35.46 C
ATOM 6031 CD2 TYR B 143 209.869 231.419 215.980 1.00 35.46 C
ATOM 6032 CE1 TYR B 143 212.537 231.253 216.605 1.00 35.46 C
ATOM 6033 CE2 TYR B 143 210.791 232.094 215.217 1.00 35.46 C
ATOM 6034 CZ TYR B 143 212.123 232.009 215.532 1.00 35.46 C

ATOM 6035 OH TYR B 143 213.044 232.684 214.768 1.00 35.46 O
ATOM 6036 N GLN B 144 208.640 227.503 219.691 1.00 56.06 N
ATOM 6037 CA GLN B 144 207.838 226.826 220.703 1.00 56.06 C
ATOM 6038 C GLN B 144 208.605 226.767 222.019 1.00 56.06 C
ATOM 6039 O GLN B 144 209.780 227.139 222.069 1.00 56.06 O
ATOM 6040 CB GLN B 144 207.454 225.428 220.210 1.00 56.06 C
ATOM 6041 CG GLN B 144 206.353 224.742 220.985 1.00 56.06 C
ATOM 6042 CD GLN B 144 205.901 223.462 220.317 1.00 56.06 C
ATOM 6043 OE1 GLN B 144 206.487 223.028 219.326 1.00 56.06 O
ATOM 6044 NE2 GLN B 144 204.831 222.870 220.833 1.00 56.06 N
ATOM 6045 N LYS B 145 207.953 226.320 223.092 1.00 34.18 N
ATOM 6046 CA LYS B 145 208.613 226.199 224.392 1.00 34.18 C
ATOM 6047 C LYS B 145 207.841 225.176 225.211 1.00 34.18 C
ATOM 6048 O LYS B 145 206.648 225.363 225.464 1.00 34.18 O
ATOM 6049 CB LYS B 145 208.674 227.540 225.110 1.00 34.18 C
ATOM 6050 CG LYS B 145 209.446 227.494 226.418 1.00 34.18 C
ATOM 6051 CD LYS B 145 209.436 228.835 227.129 1.00 34.18 C
ATOM 6052 CE LYS B 145 210.325 229.846 226.435 1.00 34.18 C
ATOM 6053 NZ LYS B 145 211.761 229.479 226.545 1.00 34.18 N
ATOM 6054 N VAL B 146 208.519 224.110 225.626 1.00 39.31 N
ATOM 6055 CA VAL B 146 207.895 222.996 226.328 1.00 39.31 C
ATOM 6056 C VAL B 146 208.264 223.069 227.800 1.00 39.31 C
ATOM 6057 O VAL B 146 209.419 223.344 228.145 1.00 39.31 O
ATOM 6058 CB VAL B 146 208.336 221.651 225.731 1.00 39.31 C
ATOM 6059 CG1 VAL B 146 207.687 220.502 226.478 1.00 39.31 C
ATOM 6060 CG2 VAL B 146 208.021 221.604 224.258 1.00 39.31 C
ATOM 6061 N LEU B 147 207.291 222.806 228.667 1.00 42.77 N
ATOM 6062 CA LEU B 147 207.543 222.696 230.097 1.00 42.77 C
ATOM 6063 C LEU B 147 206.706 221.556 230.649 1.00 42.77 C
ATOM 6064 O LEU B 147 205.503 221.483 230.383 1.00 42.77 O
ATOM 6065 CB LEU B 147 207.223 224.001 230.833 1.00 42.77 C
ATOM 6066 CG LEU B 147 205.760 224.382 231.041 1.00 42.77 C
ATOM 6067 CD1 LEU B 147 205.649 225.422 232.133 1.00 42.77 C
ATOM 6068 CD2 LEU B 147 205.177 224.915 229.759 1.00 42.77 C

ATOM 6069 N THR B 148 207.340 220.673 231.416 1.00 46.21 N
ATOM 6070 CA THR B 148 206.690 219.478 231.934 1.00 46.21 C
ATOM 6071 C THR B 148 206.884 219.403 233.438 1.00 46.21 C
ATOM 6072 O THR B 148 207.988 219.636 233.938 1.00 46.21 O
ATOM 6073 CB THR B 148 207.248 218.214 231.283 1.00 46.21 C
ATOM 6074 OG1 THR B 148 208.628 218.067 231.634 1.00 46.21 O
ATOM 6075 CG2 THR B 148 207.136 218.315 229.781 1.00 46.21 C
ATOM 6076 N PHE B 149 205.813 219.077 234.150 1.00 54.72 N
ATOM 6077 CA PHE B 149 205.879 218.870 235.585 1.00 54.72 C
ATOM 6078 C PHE B 149 206.089 217.391 235.897 1.00 54.72 C
ATOM 6079 O PHE B 149 205.864 216.511 235.066 1.00 54.72 O
ATOM 6080 CB PHE B 149 204.606 219.380 236.255 1.00 54.72 C
ATOM 6081 CG PHE B 149 204.443 220.867 236.191 1.00 54.72 C
ATOM 6082 CD1 PHE B 149 205.093 221.685 237.096 1.00 54.72 C
ATOM 6083 CD2 PHE B 149 203.639 221.449 235.229 1.00 54.72 C
ATOM 6084 CE1 PHE B 149 204.944 223.055 237.044 1.00 54.72 C
ATOM 6085 CE2 PHE B 149 203.486 222.819 235.172 1.00 54.72 C
ATOM 6086 CZ PHE B 149 204.141 223.623 236.080 1.00 54.72 C
ATOM 6087 N ARG B 150 206.532 217.126 237.122 1.00 65.00 N
ATOM 6088 CA ARG B 150 206.663 215.765 237.618 1.00 65.00 C
ATOM 6089 C ARG B 150 206.423 215.775 239.116 1.00 65.00 C
ATOM 6090 O ARG B 150 206.613 216.791 239.787 1.00 65.00 O
ATOM 6091 CB ARG B 150 208.037 215.164 237.312 1.00 65.00 C
ATOM 6092 CG ARG B 150 208.289 214.858 235.852 1.00 65.00 C
ATOM 6093 CD ARG B 150 209.675 214.268 235.673 1.00 65.00 C
ATOM 6094 NE ARG B 150 209.984 213.990 234.275 1.00 65.00 N
ATOM 6095 CZ ARG B 150 211.163 213.552 233.849 1.00 65.00 C
ATOM 6096 NH1 ARG B 150 212.145 213.344 234.715 1.00 65.00 N
ATOM 6097 NH2 ARG B 150 211.362 213.325 232.558 1.00 65.00 N
ATOM 6098 N ARG B 151 206.006 214.626 239.637 1.00 68.32 N
ATOM 6099 CA ARG B 151 205.739 214.475 241.061 1.00 68.32 C
ATOM 6100 C ARG B 151 206.210 213.093 241.477 1.00 68.32 C
ATOM 6101 O ARG B 151 205.663 212.087 241.017 1.00 68.32 O
ATOM 6102 CB ARG B 151 204.252 214.668 241.364 1.00 68.32 C

ATOM 6103 CG ARG B 151 203.772 216.088 241.111 1.00 68.32 C
ATOM 6104 CD ARG B 151 202.348 216.298 241.580 1.00 68.32 C
ATOM 6105 NE ARG B 151 201.402 215.479 240.832 1.00 68.32 N
ATOM 6106 CZ ARG B 151 200.831 215.856 239.694 1.00 68.32 C
ATOM 6107 NH1 ARG B 151 201.114 217.041 239.171 1.00 68.32 N
ATOM 6108 NH2 ARG B 151 199.979 215.049 239.077 1.00 68.32 N
ATOM 6109 N SER B 152 207.226 213.042 242.334 1.00 71.89 N
ATOM 6110 CA SER B 152 207.881 211.784 242.668 1.00 71.89 C
ATOM 6111 C SER B 152 208.180 211.745 244.156 1.00 71.89 C
ATOM 6112 O SER B 152 208.788 212.675 244.693 1.00 71.89 O
ATOM 6113 CB SER B 152 209.171 211.611 241.861 1.00 71.89 C
ATOM 6114 OG SER B 152 210.132 212.586 242.224 1.00 71.89 O
ATOM 6115 N TYR B 153 207.756 210.673 244.814 1.00 68.60 N
ATOM 6116 CA TYR B 153 208.142 210.396 246.188 1.00 68.60 C
ATOM 6117 C TYR B 153 209.233 209.335 246.180 1.00 68.60 C
ATOM 6118 O TYR B 153 209.167 208.371 245.412 1.00 68.60 O
ATOM 6119 CB TYR B 153 206.944 209.925 247.012 1.00 68.60 C
ATOM 6120 CG TYR B 153 207.251 209.726 248.475 1.00 68.60 C
ATOM 6121 CD1 TYR B 153 207.413 210.812 249.319 1.00 68.60 C
ATOM 6122 CD2 TYR B 153 207.368 208.456 249.014 1.00 68.60 C
ATOM 6123 CE1 TYR B 153 207.691 210.641 250.657 1.00 68.60 C
ATOM 6124 CE2 TYR B 153 207.645 208.274 250.352 1.00 68.60 C
ATOM 6125 CZ TYR B 153 207.806 209.371 251.168 1.00 68.60 C
ATOM 6126 OH TYR B 153 208.084 209.201 252.503 1.00 68.60 O
ATOM 6127 N ALA B 154 210.234 209.514 247.037 1.00 73.92 N
ATOM 6128 CA ALA B 154 211.466 208.733 246.969 1.00 73.92 C
ATOM 6129 C ALA B 154 211.647 207.950 248.261 1.00 73.92 C
ATOM 6130 O ALA B 154 211.886 208.540 249.319 1.00 73.92 O
ATOM 6131 CB ALA B 154 212.670 209.640 246.716 1.00 73.92 C
ATOM 6132 N TYR B 155 211.539 206.624 248.177 1.00 74.10 N
ATOM 6133 CA TYR B 155 211.883 205.767 249.304 1.00 74.10 C
ATOM 6134 C TYR B 155 213.381 205.792 249.567 1.00 74.10 C
ATOM 6135 O TYR B 155 214.133 206.469 248.860 1.00 74.10 O
ATOM 6136 CB TYR B 155 211.439 204.323 249.070 1.00 74.10 C

ATOM 6137 CG TYR B 155 209.964 204.086 249.247 1.00 74.10 C
ATOM 6138 CD1 TYR B 155 209.148 205.059 249.795 1.00 74.10 C
ATOM 6139 CD2 TYR B 155 209.396 202.869 248.907 1.00 74.10 C
ATOM 6140 CE1 TYR B 155 207.797 204.839 249.970 1.00 74.10 C
ATOM 6141 CE2 TYR B 155 208.049 202.638 249.078 1.00 74.10 C
ATOM 6142 CZ TYR B 155 207.254 203.625 249.613 1.00 74.10 C
ATOM 6143 OH TYR B 155 205.911 203.396 249.785 1.00 74.10 O
ATOM 6144 N ILE B 156 213.820 205.048 250.585 1.00 78.22 N
ATOM 6145 CA ILE B 156 215.246 204.906 250.848 1.00 78.22 C
ATOM 6146 C ILE B 156 215.942 204.085 249.772 1.00 78.22 C
ATOM 6147 O ILE B 156 217.170 204.152 249.645 1.00 78.22 O
ATOM 6148 CB ILE B 156 215.468 204.284 252.239 1.00 78.22 C
ATOM 6149 CG1 ILE B 156 216.947 204.343 252.628 1.00 78.22 C
ATOM 6150 CG2 ILE B 156 214.948 202.859 252.273 1.00 78.22 C
ATOM 6151 CD1 ILE B 156 217.470 205.743 252.823 1.00 78.22 C
ATOM 6152 N HIS B 157 215.194 203.304 248.992 1.00 79.93 N
ATOM 6153 CA HIS B 157 215.766 202.521 247.904 1.00 79.93 C
ATOM 6154 C HIS B 157 215.277 202.983 246.538 1.00 79.93 C
ATOM 6155 O HIS B 157 216.090 203.319 245.674 1.00 79.93 O
ATOM 6156 CB HIS B 157 215.454 201.031 248.098 1.00 79.93 C
ATOM 6157 CG HIS B 157 216.134 200.419 249.282 1.00 79.93 C
ATOM 6158 ND1 HIS B 157 215.553 200.365 250.529 1.00 79.93 N
ATOM 6159 CD2 HIS B 157 217.352 199.842 249.409 1.00 79.93 C
ATOM 6160 CE1 HIS B 157 216.380 199.777 251.374 1.00 79.93 C
ATOM 6161 NE2 HIS B 157 217.480 199.449 250.720 1.00 79.93 N
ATOM 6162 N THR B 158 213.966 203.016 246.319 1.00 79.72 N
ATOM 6163 CA THR B 158 213.398 203.320 245.015 1.00 79.72 C
ATOM 6164 C THR B 158 212.593 204.612 245.064 1.00 79.72 C
ATOM 6165 O THR B 158 212.136 205.042 246.127 1.00 79.72 O
ATOM 6166 CB THR B 158 212.503 202.177 244.528 1.00 79.72 C
ATOM 6167 OG1 THR B 158 211.428 201.983 245.454 1.00 79.72 O
ATOM 6168 CG2 THR B 158 213.304 200.891 244.413 1.00 79.72 C
ATOM 6169 N THR B 159 212.426 205.227 243.897 1.00 77.35 N
ATOM 6170 CA THR B 159 211.674 206.465 243.749 1.00 77.35 C

ATOM 6171 C THR B 159 210.547 206.246 242.749 1.00 77.35 C
ATOM 6172 O THR B 159 210.780 205.730 241.651 1.00 77.35 O
ATOM 6173 CB THR B 159 212.583 207.604 243.284 1.00 77.35 C
ATOM 6174 OG1 THR B 159 213.085 207.311 241.976 1.00 77.35 O
ATOM 6175 CG2 THR B 159 213.757 207.761 244.236 1.00 77.35 C
ATOM 6176 N TYR B 160 209.335 206.630 243.131 1.00 73.95 N
ATOM 6177 CA TYR B 160 208.155 206.412 242.309 1.00 73.95 C
ATOM 6178 C TYR B 160 207.845 207.640 241.457 1.00 73.95 C
ATOM 6179 O TYR B 160 208.335 208.742 241.708 1.00 73.95 O
ATOM 6180 CB TYR B 160 206.957 206.059 243.190 1.00 73.95 C
ATOM 6181 CG TYR B 160 207.080 204.711 243.858 1.00 73.95 C
ATOM 6182 CD1 TYR B 160 206.771 203.547 243.171 1.00 73.95 C
ATOM 6183 CD2 TYR B 160 207.512 204.598 245.173 1.00 73.95 C
ATOM 6184 CE1 TYR B 160 206.883 202.311 243.772 1.00 73.95 C
ATOM 6185 CE2 TYR B 160 207.626 203.362 245.782 1.00 73.95 C
ATOM 6186 CZ TYR B 160 207.311 202.224 245.074 1.00 73.95 C
ATOM 6187 OH TYR B 160 207.421 200.987 245.667 1.00 73.95 O
ATOM 6188 N LEU B 161 207.021 207.432 240.432 1.00 70.61 N
ATOM 6189 CA LEU B 161 206.584 208.496 239.531 1.00 70.61 C
ATOM 6190 C LEU B 161 205.082 208.675 239.732 1.00 70.61 C
ATOM 6191 O LEU B 161 204.281 207.868 239.253 1.00 70.61 O
ATOM 6192 CB LEU B 161 206.927 208.166 238.081 1.00 70.61 C
ATOM 6193 CG LEU B 161 206.617 209.228 237.022 1.00 70.61 C
ATOM 6194 CD1 LEU B 161 207.433 210.491 237.256 1.00 70.61 C
ATOM 6195 CD2 LEU B 161 206.860 208.684 235.622 1.00 70.61 C
ATOM 6196 N LEU B 162 204.707 209.738 240.443 1.00 70.59 N
ATOM 6197 CA LEU B 162 203.313 209.923 240.832 1.00 70.59 C
ATOM 6198 C LEU B 162 202.488 210.585 239.734 1.00 70.59 C
ATOM 6199 O LEU B 162 201.298 210.287 239.590 1.00 70.59 O
ATOM 6200 CB LEU B 162 203.243 210.734 242.123 1.00 70.59 C
ATOM 6201 CG LEU B 162 203.772 209.971 243.334 1.00 70.59 C
ATOM 6202 CD1 LEU B 162 203.890 210.873 244.540 1.00 70.59 C
ATOM 6203 CD2 LEU B 162 202.839 208.824 243.630 1.00 70.59 C
ATOM 6204 N GLY B 163 203.085 211.483 238.960 1.00 67.64 N

ATOM 6205 CA GLY B 163 202.324 212.139 237.914 1.00 67.64 C
ATOM 6206 C GLY B 163 203.231 212.886 236.965 1.00 67.64 C
ATOM 6207 O GLY B 163 204.440 213.002 237.181 1.00 67.64 O
ATOM 6208 N SER B 164 202.623 213.389 235.895 1.00 59.26 N
ATOM 6209 CA SER B 164 203.323 214.208 234.916 1.00 59.26 C
ATOM 6210 C SER B 164 202.304 214.750 233.929 1.00 59.26 C
ATOM 6211 O SER B 164 201.299 214.097 233.638 1.00 59.26 O
ATOM 6212 CB SER B 164 204.406 213.411 234.179 1.00 59.26 C
ATOM 6213 OG SER B 164 203.833 212.412 233.356 1.00 59.26 O
ATOM 6214 N ASN B 165 202.568 215.955 233.428 1.00 53.74 N
ATOM 6215 CA ASN B 165 201.675 216.566 232.447 1.00 53.74 C
ATOM 6216 C ASN B 165 202.460 217.605 231.644 1.00 53.74 C
ATOM 6217 O ASN B 165 202.698 218.715 232.127 1.00 53.74 O
ATOM 6218 CB ASN B 165 200.455 217.170 233.125 1.00 53.74 C
ATOM 6219 CG ASN B 165 200.817 218.068 234.289 1.00 53.74 C
ATOM 6220 OD1 ASN B 165 201.991 218.241 234.613 1.00 53.74 O
ATOM 6221 ND2 ASN B 165 199.805 218.658 234.916 1.00 53.74 N
ATOM 6222 N THR B 166 202.847 217.235 230.426 1.00 46.53 N
ATOM 6223 CA THR B 166 203.456 218.203 229.531 1.00 46.53 C
ATOM 6224 C THR B 166 202.455 219.313 229.217 1.00 46.53 C
ATOM 6225 O THR B 166 201.241 219.148 229.357 1.00 46.53 O
ATOM 6226 CB THR B 166 203.920 217.525 228.242 1.00 46.53 C
ATOM 6227 OG1 THR B 166 202.785 217.005 227.539 1.00 46.53 O
ATOM 6228 CG2 THR B 166 204.873 216.376 228.554 1.00 46.53 C
ATOM 6229 N GLU B 167 202.976 220.463 228.797 1.00 47.79 N
ATOM 6230 CA GLU B 167 202.112 221.590 228.455 1.00 47.79 C
ATOM 6231 C GLU B 167 202.854 222.468 227.459 1.00 47.79 C
ATOM 6232 O GLU B 167 203.807 223.157 227.831 1.00 47.79 O
ATOM 6233 CB GLU B 167 201.716 222.372 229.701 1.00 47.79 C
ATOM 6234 CG GLU B 167 200.740 223.510 229.440 1.00 47.79 C
ATOM 6235 CD GLU B 167 200.300 224.205 230.714 1.00 47.79 C
ATOM 6236 OE1 GLU B 167 200.769 223.804 231.799 1.00 47.79 O
ATOM 6237 OE2 GLU B 167 199.486 225.150 230.632 1.00 47.79 O
ATOM 6238 N TYR B 168 202.417 222.437 226.205 1.00 44.66 N

ATOM 6239 CA TYR B 168 203.066 223.207 225.156 1.00 44.66 C
ATOM 6240 C TYR B 168 202.490 224.615 225.105 1.00 44.66 C
ATOM 6241 O TYR B 168 201.273 224.805 225.155 1.00 44.66 O
ATOM 6242 CB TYR B 168 202.879 222.504 223.817 1.00 44.66 C
ATOM 6243 CG TYR B 168 203.519 221.139 223.785 1.00 44.66 C
ATOM 6244 CD1 TYR B 168 204.853 220.983 223.459 1.00 44.66 C
ATOM 6245 CD2 TYR B 168 202.792 220.008 224.119 1.00 44.66 C
ATOM 6246 CE1 TYR B 168 205.443 219.734 223.441 1.00 44.66 C
ATOM 6247 CE2 TYR B 168 203.369 218.757 224.104 1.00 44.66 C
ATOM 6248 CZ TYR B 168 204.696 218.625 223.767 1.00 44.66 C
ATOM 6249 OH TYR B 168 205.276 217.381 223.756 1.00 44.66 O
ATOM 6250 N VAL B 169 203.370 225.607 224.999 1.00 40.62 N
ATOM 6251 CA VAL B 169 202.939 226.998 225.025 1.00 40.62 C
ATOM 6252 C VAL B 169 203.962 227.859 224.298 1.00 40.62 C
ATOM 6253 O VAL B 169 205.172 227.679 224.467 1.00 40.62 O
ATOM 6254 CB VAL B 169 202.731 227.480 226.472 1.00 40.62 C
ATOM 6255 CG1 VAL B 169 204.055 227.530 227.211 1.00 40.62 C
ATOM 6256 CG2 VAL B 169 202.046 228.831 226.490 1.00 40.62 C
ATOM 6257 N ALA B 170 203.486 228.790 223.477 1.00 35.86 N
ATOM 6258 CA ALA B 170 204.387 229.636 222.717 1.00 35.86 C
ATOM 6259 C ALA B 170 205.039 230.675 223.625 1.00 35.86 C
ATOM 6260 O ALA B 170 204.481 231.042 224.663 1.00 35.86 O
ATOM 6261 CB ALA B 170 203.645 230.332 221.583 1.00 35.86 C
ATOM 6262 N PRO B 171 206.216 231.166 223.258 1.00 34.61 N
ATOM 6263 CA PRO B 171 206.932 232.102 224.120 1.00 34.61 C
ATOM 6264 C PRO B 171 206.405 233.513 223.947 1.00 34.61 C
ATOM 6265 O PRO B 171 205.559 233.767 223.078 1.00 34.61 O
ATOM 6266 CB PRO B 171 208.379 231.991 223.623 1.00 34.61 C
ATOM 6267 CG PRO B 171 208.231 231.650 222.189 1.00 34.61 C
ATOM 6268 CD PRO B 171 207.013 230.775 222.085 1.00 34.61 C
ATOM 6269 N PRO B 172 206.881 234.459 224.753 1.00 37.34 N
ATOM 6270 CA PRO B 172 206.491 235.860 224.556 1.00 37.34 C
ATOM 6271 C PRO B 172 207.077 236.429 223.277 1.00 37.34 C
ATOM 6272 O PRO B 172 207.764 235.720 222.535 1.00 37.34 O

ATOM 6273 CB PRO B 172 207.065 236.563 225.793 1.00 37.34 C
ATOM 6274 CG PRO B 172 207.245 235.477 226.800 1.00 37.34 C
ATOM 6275 CD PRO B 172 207.627 234.269 226.006 1.00 37.34 C
ATOM 6276 N MET B 173 206.828 237.707 223.010 1.00 43.50 N
ATOM 6277 CA MET B 173 207.327 238.319 221.788 1.00 43.50 C
ATOM 6278 C MET B 173 208.748 238.843 221.923 1.00 43.50 C
ATOM 6279 O MET B 173 209.510 238.786 220.952 1.00 43.50 O
ATOM 6280 CB MET B 173 206.405 239.456 221.348 1.00 43.50 C
ATOM 6281 CG MET B 173 206.769 240.050 220.001 1.00 43.50 C
ATOM 6282 SD MET B 173 206.595 238.867 218.655 1.00 43.50 S
ATOM 6283 CE MET B 173 207.702 239.576 217.442 1.00 43.50 C
ATOM 6284 N TRP B 174 209.130 239.354 223.097 1.00 56.39 N
ATOM 6285 CA TRP B 174 210.498 239.833 223.267 1.00 56.39 C
ATOM 6286 C TRP B 174 211.508 238.706 223.114 1.00 56.39 C
ATOM 6287 O TRP B 174 212.635 238.939 222.663 1.00 56.39 O
ATOM 6288 CB TRP B 174 210.670 240.507 224.629 1.00 56.39 C
ATOM 6289 CG TRP B 174 210.421 239.607 225.804 1.00 56.39 C
ATOM 6290 CD1 TRP B 174 211.313 238.757 226.394 1.00 56.39 C
ATOM 6291 CD2 TRP B 174 209.206 239.491 226.550 1.00 56.39 C
ATOM 6292 NE1 TRP B 174 210.724 238.110 227.449 1.00 56.39 N
ATOM 6293 CE2 TRP B 174 209.430 238.543 227.568 1.00 56.39 C
ATOM 6294 CE3 TRP B 174 207.948 240.091 226.452 1.00 56.39 C
ATOM 6295 CZ2 TRP B 174 208.444 238.181 228.480 1.00 56.39 C
ATOM 6296 CZ3 TRP B 174 206.971 239.731 227.360 1.00 56.39 C
ATOM 6297 CH2 TRP B 174 207.224 238.786 228.360 1.00 56.39 C
ATOM 6298 N GLU B 175 211.129 237.484 223.481 1.00 43.59 N
ATOM 6299 CA GLU B 175 212.056 236.364 223.449 1.00 43.59 C
ATOM 6300 C GLU B 175 212.324 235.860 222.038 1.00 43.59 C
ATOM 6301 O GLU B 175 213.324 235.168 221.826 1.00 43.59 O
ATOM 6302 CB GLU B 175 211.526 235.229 224.327 1.00 43.59 C
ATOM 6303 CG GLU B 175 212.481 234.067 224.499 1.00 43.59 C
ATOM 6304 CD GLU B 175 211.971 233.041 225.490 1.00 43.59 C
ATOM 6305 OE1 GLU B 175 210.860 233.230 226.027 1.00 43.59 O
ATOM 6306 OE2 GLU B 175 212.683 232.046 225.740 1.00 43.59 O

ATOM 6307 N ILE B 176 211.473 236.197 221.074 1.00 31.83 N
ATOM 6308 CA ILE B 176 211.750 235.923 219.674 1.00 31.83 C
ATOM 6309 C ILE B 176 212.518 237.085 219.037 1.00 31.83 C
ATOM 6310 O ILE B 176 212.748 237.100 217.830 1.00 31.83 O
ATOM 6311 CB ILE B 176 210.462 235.594 218.903 1.00 31.83 C
ATOM 6312 CG1 ILE B 176 209.710 234.473 219.611 1.00 31.83 C
ATOM 6313 CG2 ILE B 176 210.769 235.068 217.520 1.00 31.83 C
ATOM 6314 CD1 ILE B 176 208.319 234.243 219.075 1.00 31.83 C
ATOM 6315 N HIS B 177 212.927 238.060 219.845 1.00 41.11 N
ATOM 6316 CA HIS B 177 213.956 239.017 219.469 1.00 41.11 C
ATOM 6317 C HIS B 177 215.273 238.727 220.166 1.00 41.11 C
ATOM 6318 O HIS B 177 216.256 239.438 219.940 1.00 41.11 O
ATOM 6319 CB HIS B 177 213.514 240.447 219.787 1.00 41.11 C
ATOM 6320 CG HIS B 177 212.349 240.912 218.977 1.00 41.11 C
ATOM 6321 ND1 HIS B 177 212.452 241.225 217.640 1.00 41.11 N
ATOM 6322 CD2 HIS B 177 211.057 241.128 219.316 1.00 41.11 C
ATOM 6323 CE1 HIS B 177 211.271 241.606 217.188 1.00 41.11 C
ATOM 6324 NE2 HIS B 177 210.408 241.557 218.186 1.00 41.11 N
ATOM 6325 N HIS B 178 215.311 237.703 221.013 1.00 44.25 N
ATOM 6326 CA HIS B 178 216.537 237.258 221.645 1.00 44.25 C
ATOM 6327 C HIS B 178 216.945 235.876 221.165 1.00 44.25 C
ATOM 6328 O HIS B 178 218.083 235.460 221.407 1.00 44.25 O
ATOM 6329 CB HIS B 178 216.378 237.262 223.169 1.00 44.25 C
ATOM 6330 CG HIS B 178 217.657 237.046 223.910 1.00 44.25 C
ATOM 6331 ND1 HIS B 178 218.145 235.791 224.199 1.00 44.25 N
ATOM 6332 CD2 HIS B 178 218.552 237.925 224.417 1.00 44.25 C
ATOM 6333 CE1 HIS B 178 219.286 235.906 224.855 1.00 44.25 C
ATOM 6334 NE2 HIS B 178 219.555 237.191 225.000 1.00 44.25 N
ATOM 6335 N ILE B 179 216.057 235.161 220.478 1.00 36.87 N
ATOM 6336 CA ILE B 179 216.428 233.929 219.798 1.00 36.87 C
ATOM 6337 C ILE B 179 216.912 234.198 218.378 1.00 36.87 C
ATOM 6338 O ILE B 179 217.682 233.391 217.837 1.00 36.87 O
ATOM 6339 CB ILE B 179 215.251 232.930 219.782 1.00 36.87 C
ATOM 6340 CG1 ILE B 179 214.878 232.518 221.202 1.00 36.87 C

ATOM 6341 CG2 ILE B 179 215.590 231.700 218.966 1.00 36.87 C
ATOM 6342 CD1 ILE B 179 213.598 231.721 221.278 1.00 36.87 C
ATOM 6343 N ASN B 180 216.506 235.311 217.769 1.00 34.44 N
ATOM 6344 CA ASN B 180 216.956 235.677 216.434 1.00 34.44 C
ATOM 6345 C ASN B 180 218.032 236.754 216.464 1.00 34.44 C
ATOM 6346 O ASN B 180 218.247 237.439 215.461 1.00 34.44 O
ATOM 6347 CB ASN B 180 215.775 236.134 215.580 1.00 34.44 C
ATOM 6348 CG ASN B 180 214.864 234.993 215.196 1.00 34.44 C
ATOM 6349 OD1 ASN B 180 215.325 233.897 214.886 1.00 34.44 O
ATOM 6350 ND2 ASN B 180 213.561 235.245 215.202 1.00 34.44 N
ATOM 6351 N SER B 181 218.714 236.918 217.595 1.00 42.12 N
ATOM 6352 CA SER B 181 219.846 237.838 217.667 1.00 42.12 C
ATOM 6353 C SER B 181 221.086 237.248 218.318 1.00 42.12 C
ATOM 6354 O SER B 181 222.189 237.723 218.028 1.00 42.12 O
ATOM 6355 CB SER B 181 219.453 239.113 218.422 1.00 42.12 C
ATOM 6356 OG SER B 181 218.459 239.837 217.719 1.00 42.12 O
ATOM 6357 N HIS B 182 220.963 236.245 219.183 1.00 43.80 N
ATOM 6358 CA HIS B 182 222.131 235.589 219.754 1.00 43.80 C
ATOM 6359 C HIS B 182 221.990 234.083 219.879 1.00 43.80 C
ATOM 6360 O HIS B 182 222.943 233.437 220.322 1.00 43.80 O
ATOM 6361 CB HIS B 182 222.449 236.176 221.132 1.00 43.80 C
ATOM 6362 CG HIS B 182 222.866 237.610 221.089 1.00 43.80 C
ATOM 6363 ND1 HIS B 182 221.961 238.648 221.134 1.00 43.80 N
ATOM 6364 CD2 HIS B 182 224.089 238.181 220.995 1.00 43.80 C
ATOM 6365 CE1 HIS B 182 222.609 239.797 221.075 1.00 43.80 C
ATOM 6366 NE2 HIS B 182 223.902 239.542 220.991 1.00 43.80 N
ATOM 6367 N SER B 183 220.850 233.500 219.512 1.00 46.61 N
ATOM 6368 CA SER B 183 220.615 232.063 219.642 1.00 46.61 C
ATOM 6369 C SER B 183 220.682 231.606 221.097 1.00 46.61 C
ATOM 6370 O SER B 183 221.004 230.452 221.380 1.00 46.61 O
ATOM 6371 CB SER B 183 221.593 231.257 218.782 1.00 46.61 C
ATOM 6372 OG SER B 183 222.920 231.374 219.259 1.00 46.61 O
ATOM 6373 N GLN B 184 220.377 232.503 222.031 1.00 48.62 N
ATOM 6374 CA GLN B 184 220.327 232.181 223.453 1.00 48.62 C

ATOM 6375 C GLN B 184 218.875 232.234 223.909 1.00 48.62 C
ATOM 6376 O GLN B 184 218.150 233.182 223.593 1.00 48.62 O
ATOM 6377 CB GLN B 184 221.191 233.134 224.274 1.00 48.62 C
ATOM 6378 CG GLN B 184 222.679 232.958 224.063 1.00 48.62 C
ATOM 6379 CD GLN B 184 223.496 233.873 224.946 1.00 48.62 C
ATOM 6380 OE1 GLN B 184 222.948 234.690 225.684 1.00 48.62 O
ATOM 6381 NE2 GLN B 184 224.815 233.740 224.878 1.00 48.62 N
ATOM 6382 N CYS B 185 218.459 231.216 224.650 1.00 50.88 N
ATOM 6383 CA CYS B 185 217.091 231.095 225.124 1.00 50.88 C
ATOM 6384 C CYS B 185 217.049 231.167 226.645 1.00 50.88 C
ATOM 6385 O CYS B 185 217.899 230.600 227.336 1.00 50.88 O
ATOM 6386 CB CYS B 185 216.495 229.779 224.630 1.00 50.88 C
ATOM 6387 SG CYS B 185 214.790 229.444 225.062 1.00 50.88 S
ATOM 6388 N TYR B 186 216.044 231.869 227.164 1.00 53.73 N
ATOM 6389 CA TYR B 186 215.936 232.102 228.596 1.00 53.73 C
ATOM 6390 C TYR B 186 215.520 230.825 229.323 1.00 53.73 C
ATOM 6391 O TYR B 186 215.246 229.788 228.714 1.00 53.73 O
ATOM 6392 CB TYR B 186 214.952 233.233 228.874 1.00 53.73 C
ATOM 6393 CG TYR B 186 215.476 234.589 228.484 1.00 53.73 C
ATOM 6394 CD1 TYR B 186 216.831 234.792 228.278 1.00 53.73 C
ATOM 6395 CD2 TYR B 186 214.619 235.662 228.313 1.00 53.73 C
ATOM 6396 CE1 TYR B 186 217.319 236.027 227.921 1.00 53.73 C
ATOM 6397 CE2 TYR B 186 215.098 236.902 227.953 1.00 53.73 C
ATOM 6398 CZ TYR B 186 216.450 237.079 227.758 1.00 53.73 C
ATOM 6399 OH TYR B 186 216.936 238.314 227.398 1.00 53.73 O
ATOM 6400 N SER B 187 215.462 230.906 230.650 1.00 52.25 N
ATOM 6401 CA SER B 187 215.136 229.758 231.488 1.00 52.25 C
ATOM 6402 C SER B 187 214.140 230.149 232.568 1.00 52.25 C
ATOM 6403 O SER B 187 214.261 229.739 233.726 1.00 52.25 O
ATOM 6404 CB SER B 187 216.394 229.162 232.114 1.00 52.25 C
ATOM 6405 OG SER B 187 216.979 230.074 233.026 1.00 52.25 O
ATOM 6406 N SER B 188 213.144 230.952 232.206 1.00 54.13 N
ATOM 6407 CA SER B 188 212.097 231.345 233.145 1.00 54.13 C
ATOM 6408 C SER B 188 210.910 231.836 232.338 1.00 54.13 C

ATOM 6409 O SER B 188 211.018 232.848 231.640 1.00 54.13 O
ATOM 6410 CB SER B 188 212.589 232.430 234.099 1.00 54.13 C
ATOM 6411 OG SER B 188 212.833 233.642 233.407 1.00 54.13 O
ATOM 6412 N TYR B 189 209.786 231.137 232.434 1.00 53.38 N
ATOM 6413 CA TYR B 189 208.608 231.432 231.624 1.00 53.38 C
ATOM 6414 C TYR B 189 207.505 231.979 232.525 1.00 53.38 C
ATOM 6415 O TYR B 189 206.648 231.235 233.002 1.00 53.38 O
ATOM 6416 CB TYR B 189 208.150 230.191 230.876 1.00 53.38 C
ATOM 6417 CG TYR B 189 206.958 230.430 229.988 1.00 53.38 C
ATOM 6418 CD1 TYR B 189 207.075 231.200 228.843 1.00 53.38 C
ATOM 6419 CD2 TYR B 189 205.727 229.865 230.274 1.00 53.38 C
ATOM 6420 CE1 TYR B 189 205.996 231.420 228.020 1.00 53.38 C
ATOM 6421 CE2 TYR B 189 204.643 230.074 229.450 1.00 53.38 C
ATOM 6422 CZ TYR B 189 204.782 230.854 228.328 1.00 53.38 C
ATOM 6423 OH TYR B 189 203.705 231.072 227.504 1.00 53.38 O
ATOM 6424 N SER B 190 207.523 233.292 232.740 1.00 61.23 N
ATOM 6425 CA SER B 190 206.466 233.933 233.504 1.00 61.23 C
ATOM 6426 C SER B 190 205.141 233.824 232.758 1.00 61.23 C
ATOM 6427 O SER B 190 205.097 233.620 231.543 1.00 61.23 O
ATOM 6428 CB SER B 190 206.808 235.399 233.767 1.00 61.23 C
ATOM 6429 OG SER B 190 206.837 236.138 232.559 1.00 61.23 O
ATOM 6430 N ARG B 191 204.046 233.959 233.503 1.00 70.93 N
ATOM 6431 CA ARG B 191 202.716 233.787 232.936 1.00 70.93 C
ATOM 6432 C ARG B 191 201.714 234.622 233.719 1.00 70.93 C
ATOM 6433 O ARG B 191 202.059 235.316 234.679 1.00 70.93 O
ATOM 6434 CB ARG B 191 202.291 232.316 232.943 1.00 70.93 C
ATOM 6435 CG ARG B 191 203.063 231.432 231.993 1.00 70.93 C
ATOM 6436 CD ARG B 191 202.603 229.990 232.096 1.00 70.93 C
ATOM 6437 NE ARG B 191 201.222 229.819 231.656 1.00 70.93 N
ATOM 6438 CZ ARG B 191 200.529 228.695 231.799 1.00 70.93 C
ATOM 6439 NH1 ARG B 191 201.089 227.640 232.373 1.00 70.93 N
ATOM 6440 NH2 ARG B 191 199.277 228.625 231.368 1.00 70.93 N
ATOM 6441 N VAL B 192 200.457 234.544 233.287 1.00 87.61 N
ATOM 6442 CA VAL B 192 199.320 235.135 233.981 1.00 87.61 C

ATOM 6443 C VAL B 192 198.125 234.222 233.759 1.00 87.61 C
ATOM 6444 O VAL B 192 197.667 234.062 232.622 1.00 87.61 O
ATOM 6445 CB VAL B 192 199.011 236.557 233.474 1.00 87.61 C
ATOM 6446 CG1 VAL B 192 197.743 237.088 234.124 1.00 87.61 C
ATOM 6447 CG2 VAL B 192 200.179 237.492 233.724 1.00 87.61 C
ATOM 6448 N ILE B 193 197.607 233.612 234.823 1.00 95.01 N
ATOM 6449 CA ILE B 193 196.405 232.807 234.647 1.00 95.01 C
ATOM 6450 C ILE B 193 195.210 233.538 235.245 1.00 95.01 C
ATOM 6451 O ILE B 193 194.780 233.267 236.372 1.00 95.01 O
ATOM 6452 CB ILE B 193 196.591 231.401 235.254 1.00 95.01 C
ATOM 6453 CG1 ILE B 193 195.346 230.542 235.022 1.00 95.01 C
ATOM 6454 CG2 ILE B 193 197.015 231.468 236.725 1.00 95.01 C
ATOM 6455 CD1 ILE B 193 195.565 229.073 235.296 1.00 95.01 C
ATOM 6456 N ALA B 194 194.664 234.471 234.467 1.00103.96 N
ATOM 6457 CA ALA B 194 193.365 235.110 234.653 1.00103.96 C
ATOM 6458 C ALA B 194 193.261 236.017 235.876 1.00103.96 C
ATOM 6459 O ALA B 194 192.353 236.852 235.941 1.00103.96 O
ATOM 6460 CB ALA B 194 192.274 234.039 234.728 1.00103.96 C
ATOM 6461 N GLY B 195 194.167 235.889 236.843 1.00101.51 N
ATOM 6462 CA GLY B 195 194.192 236.836 237.940 1.00101.51 C
ATOM 6463 C GLY B 195 195.525 237.013 238.633 1.00101.51 C
ATOM 6464 O GLY B 195 195.616 237.761 239.610 1.00101.51 O
ATOM 6465 N THR B 196 196.569 236.343 238.152 1.00 91.85 N
ATOM 6466 CA THR B 196 197.803 236.225 238.919 1.00 91.85 C
ATOM 6467 C THR B 196 198.991 236.143 237.971 1.00 91.85 C
ATOM 6468 O THR B 196 198.853 236.249 236.749 1.00 91.85 O
ATOM 6469 CB THR B 196 197.779 234.996 239.842 1.00 91.85 C
ATOM 6470 OG1 THR B 196 197.548 233.813 239.066 1.00 91.85 O
ATOM 6471 CG2 THR B 196 196.712 235.122 240.924 1.00 91.85 C
ATOM 6472 N VAL B 197 200.171 235.952 238.558 1.00 76.05 N
ATOM 6473 CA VAL B 197 201.410 235.747 237.819 1.00 76.05 C
ATOM 6474 C VAL B 197 202.247 234.729 238.581 1.00 76.05 C
ATOM 6475 O VAL B 197 202.686 234.994 239.705 1.00 76.05 O
ATOM 6476 CB VAL B 197 202.196 237.056 237.616 1.00 76.05 C

ATOM 6477 CG1 VAL B 197 201.448 237.972 236.676 1.00 76.05 C
ATOM 6478 CG2 VAL B 197 202.414 237.766 238.943 1.00 76.05 C
ATOM 6479 N PHE B 198 202.450 233.560 237.986 1.00 71.49 N
ATOM 6480 CA PHE B 198 203.342 232.552 238.535 1.00 71.49 C
ATOM 6481 C PHE B 198 204.544 232.403 237.615 1.00 71.49 C
ATOM 6482 O PHE B 198 204.397 232.329 236.392 1.00 71.49 O
ATOM 6483 CB PHE B 198 202.626 231.210 238.715 1.00 71.49 C
ATOM 6484 CG PHE B 198 202.168 230.583 237.431 1.00 71.49 C
ATOM 6485 CD1 PHE B 198 200.940 230.914 236.886 1.00 71.49 C
ATOM 6486 CD2 PHE B 198 202.952 229.643 236.781 1.00 71.49 C
ATOM 6487 CE1 PHE B 198 200.513 230.335 235.708 1.00 71.49 C
ATOM 6488 CE2 PHE B 198 202.529 229.062 235.603 1.00 71.49 C
ATOM 6489 CZ PHE B 198 201.308 229.406 235.069 1.00 71.49 C
ATOM 6490 N VAL B 199 205.732 232.366 238.210 1.00 57.38 N
ATOM 6491 CA VAL B 199 206.970 232.357 237.444 1.00 57.38 C
ATOM 6492 C VAL B 199 207.586 230.970 237.495 1.00 57.38 C
ATOM 6493 O VAL B 199 208.195 230.590 238.499 1.00 57.38 O
ATOM 6494 CB VAL B 199 207.959 233.407 237.977 1.00 57.38 C
ATOM 6495 CG1 VAL B 199 209.253 233.349 237.194 1.00 57.38 C
ATOM 6496 CG2 VAL B 199 207.350 234.794 237.915 1.00 57.38 C
ATOM 6497 N ALA B 200 207.425 230.197 236.426 1.00 52.16 N
ATOM 6498 CA ALA B 200 208.088 228.908 236.364 1.00 52.16 C
ATOM 6499 C ALA B 200 209.600 229.099 236.313 1.00 52.16 C
ATOM 6500 O ALA B 200 210.109 230.191 236.050 1.00 52.16 O
ATOM 6501 CB ALA B 200 207.611 228.112 235.151 1.00 52.16 C
ATOM 6502 N TYR B 201 210.322 228.017 236.582 1.00 55.43 N
ATOM 6503 CA TYR B 201 211.775 228.028 236.543 1.00 55.43 C
ATOM 6504 C TYR B 201 212.254 226.679 236.029 1.00 55.43 C
ATOM 6505 O TYR B 201 211.530 225.683 236.082 1.00 55.43 O
ATOM 6506 CB TYR B 201 212.373 228.348 237.920 1.00 55.43 C
ATOM 6507 CG TYR B 201 212.176 229.789 238.341 1.00 55.43 C
ATOM 6508 CD1 TYR B 201 213.045 230.781 237.915 1.00 55.43 C
ATOM 6509 CD2 TYR B 201 211.110 230.158 239.148 1.00 55.43 C
ATOM 6510 CE1 TYR B 201 212.868 232.097 238.290 1.00 55.43 C

ATOM 6511 CE2 TYR B 201 210.923 231.475 239.525 1.00 55.43 C
ATOM 6512 CZ TYR B 201 211.807 232.439 239.096 1.00 55.43 C
ATOM 6513 OH TYR B 201 211.624 233.751 239.470 1.00 55.43 O
ATOM 6514 N HIS B 202 213.486 226.662 235.516 1.00 53.99 N
ATOM 6515 CA HIS B 202 213.992 225.483 234.821 1.00 53.99 C
ATOM 6516 C HIS B 202 214.043 224.269 235.738 1.00 53.99 C
ATOM 6517 O HIS B 202 213.330 223.282 235.527 1.00 53.99 O
ATOM 6518 CB HIS B 202 215.379 225.767 234.245 1.00 53.99 C
ATOM 6519 CG HIS B 202 215.956 224.619 233.479 1.00 53.99 C
ATOM 6520 ND1 HIS B 202 216.673 223.609 234.084 1.00 53.99 N
ATOM 6521 CD2 HIS B 202 215.921 224.319 232.160 1.00 53.99 C
ATOM 6522 CE1 HIS B 202 217.056 222.736 233.170 1.00 53.99 C
ATOM 6523 NE2 HIS B 202 216.613 223.144 231.994 1.00 53.99 N
ATOM 6524 N ARG B 203 214.879 224.327 236.767 1.00 66.93 N
ATOM 6525 CA ARG B 203 215.130 223.188 237.639 1.00 66.93 C
ATOM 6526 C ARG B 203 214.727 223.512 239.074 1.00 66.93 C
ATOM 6527 O ARG B 203 215.298 222.988 240.031 1.00 66.93 O
ATOM 6528 CB ARG B 203 216.601 222.781 237.546 1.00 66.93 C
ATOM 6529 CG ARG B 203 216.980 221.487 238.234 1.00 66.93 C
ATOM 6530 CD ARG B 203 218.449 221.185 238.008 1.00 66.93 C
ATOM 6531 NE ARG B 203 218.725 220.829 236.620 1.00 66.93 N
ATOM 6532 CZ ARG B 203 219.946 220.686 236.119 1.00 66.93 C
ATOM 6533 NH1 ARG B 203 221.005 220.873 236.893 1.00 66.93 N
ATOM 6534 NH2 ARG B 203 220.110 220.358 234.845 1.00 66.93 N
ATOM 6535 N ASP B 204 213.738 224.390 239.231 1.00 70.21 N
ATOM 6536 CA ASP B 204 213.326 224.911 240.532 1.00 70.21 C
ATOM 6537 C ASP B 204 214.454 225.659 241.234 1.00 70.21 C
ATOM 6538 O ASP B 204 214.430 225.823 242.458 1.00 70.21 O
ATOM 6539 CB ASP B 204 212.784 223.795 241.432 1.00 70.21 C
ATOM 6540 CG ASP B 204 211.451 223.257 240.950 1.00 70.21 C
ATOM 6541 OD1 ASP B 204 210.696 224.024 240.316 1.00 70.21 O
ATOM 6542 OD2 ASP B 204 211.156 222.071 241.208 1.00 70.21 O
ATOM 6543 N SER B 205 215.442 226.122 240.472 1.00 71.47 N
ATOM 6544 CA SER B 205 216.528 226.947 240.981 1.00 71.47 C

ATOM 6545 C SER B 205 216.225 228.385 240.588 1.00 71.47 C
ATOM 6546 O SER B 205 216.258 228.733 239.403 1.00 71.47 O
ATOM 6547 CB SER B 205 217.870 226.493 240.417 1.00 71.47 C
ATOM 6548 OG SER B 205 217.919 226.711 239.018 1.00 71.47 O
ATOM 6549 N TYR B 206 215.937 229.221 241.581 1.00 70.58 N
ATOM 6550 CA TYR B 206 215.428 230.560 241.318 1.00 70.58 C
ATOM 6551 C TYR B 206 216.518 231.483 240.795 1.00 70.58 C
ATOM 6552 O TYR B 206 216.906 232.438 241.473 1.00 70.58 O
ATOM 6553 CB TYR B 206 214.810 231.145 242.588 1.00 70.58 C
ATOM 6554 CG TYR B 206 213.570 230.418 243.045 1.00 70.58 C
ATOM 6555 CD1 TYR B 206 212.330 230.711 242.500 1.00 70.58 C
ATOM 6556 CD2 TYR B 206 213.644 229.423 244.008 1.00 70.58 C
ATOM 6557 CE1 TYR B 206 211.195 230.044 242.910 1.00 70.58 C
ATOM 6558 CE2 TYR B 206 212.515 228.750 244.424 1.00 70.58 C
ATOM 6559 CZ TYR B 206 211.294 229.064 243.872 1.00 70.58 C
ATOM 6560 OH TYR B 206 210.166 228.396 244.284 1.00 70.58 O
ATOM 6561 N GLU B 207 217.015 231.213 239.592 1.00 66.96 N
ATOM 6562 CA GLU B 207 217.983 232.089 238.951 1.00 66.96 C
ATOM 6563 C GLU B 207 217.545 232.370 237.523 1.00 66.96 C
ATOM 6564 O GLU B 207 216.964 231.508 236.857 1.00 66.96 O
ATOM 6565 CB GLU B 207 219.390 231.492 238.967 1.00 66.96 C
ATOM 6566 CG GLU B 207 220.443 232.453 238.449 1.00 66.96 C
ATOM 6567 CD GLU B 207 221.844 231.906 238.575 1.00 66.96 C
ATOM 6568 OE1 GLU B 207 221.992 230.749 239.019 1.00 66.96 O
ATOM 6569 OE2 GLU B 207 222.798 232.638 238.242 1.00 66.96 O
ATOM 6570 N ASN B 208 217.823 233.586 237.067 1.00 63.42 N
ATOM 6571 CA ASN B 208 217.312 234.116 235.805 1.00 63.42 C
ATOM 6572 C ASN B 208 218.313 233.946 234.665 1.00 63.42 C
ATOM 6573 O ASN B 208 218.683 234.906 233.992 1.00 63.42 O
ATOM 6574 CB ASN B 208 216.938 235.576 236.013 1.00 63.42 C
ATOM 6575 CG ASN B 208 216.022 236.103 234.942 1.00 63.42 C
ATOM 6576 OD1 ASN B 208 215.809 235.456 233.916 1.00 63.42 O
ATOM 6577 ND2 ASN B 208 215.442 237.281 235.202 1.00 63.42 N
ATOM 6578 N LYS B 209 218.749 232.710 234.430 1.00 59.26 N

ATOM 6579 CA LYS B 209 219.849 232.430 233.519 1.00 59.26 C
ATOM 6580 C LYS B 209 219.414 232.532 232.058 1.00 59.26 C
ATOM 6581 O LYS B 209 218.247 232.768 231.737 1.00 59.26 O
ATOM 6582 CB LYS B 209 220.428 231.047 233.804 1.00 59.26 C
ATOM 6583 CG LYS B 209 221.074 230.925 235.164 1.00 59.26 C
ATOM 6584 CD LYS B 209 222.265 231.862 235.271 1.00 59.26 C
ATOM 6585 CE LYS B 209 223.407 231.405 234.379 1.00 59.26 C
ATOM 6586 NZ LYS B 209 224.606 232.274 234.536 1.00 59.26 N
ATOM 6587 N THR B 210 220.382 232.338 231.160 1.00 56.19 N
ATOM 6588 CA THR B 210 220.159 232.346 229.716 1.00 56.19 C
ATOM 6589 C THR B 210 220.774 231.081 229.133 1.00 56.19 C
ATOM 6590 O THR B 210 222.001 230.953 229.079 1.00 56.19 O
ATOM 6591 CB THR B 210 220.769 233.586 229.064 1.00 56.19 C
ATOM 6592 OG1 THR B 210 222.188 233.576 229.257 1.00 56.19 O
ATOM 6593 CG2 THR B 210 220.188 234.851 229.674 1.00 56.19 C
ATOM 6594 N MET B 211 219.929 230.156 228.689 1.00 51.57 N
ATOM 6595 CA MET B 211 220.393 228.875 228.184 1.00 51.57 C
ATOM 6596 C MET B 211 220.984 229.019 226.782 1.00 51.57 C
ATOM 6597 O MET B 211 221.033 230.106 226.203 1.00 51.57 O
ATOM 6598 CB MET B 211 219.250 227.865 228.173 1.00 51.57 C
ATOM 6599 CG MET B 211 218.735 227.484 229.549 1.00 51.57 C
ATOM 6600 SD MET B 211 219.979 226.653 230.552 1.00 51.57 S
ATOM 6601 CE MET B 211 220.490 227.987 231.630 1.00 51.57 C
ATOM 6602 N GLN B 212 221.437 227.891 226.239 1.00 50.10 N
ATOM 6603 CA GLN B 212 222.039 227.820 224.916 1.00 50.10 C
ATOM 6604 C GLN B 212 221.326 226.762 224.084 1.00 50.10 C
ATOM 6605 O GLN B 212 220.772 225.800 224.622 1.00 50.10 O
ATOM 6606 CB GLN B 212 223.533 227.489 225.012 1.00 50.10 C
ATOM 6607 CG GLN B 212 224.260 227.436 223.684 1.00 50.10 C
ATOM 6608 CD GLN B 212 224.372 228.790 223.032 1.00 50.10 C
ATOM 6609 OE1 GLN B 212 224.636 229.791 223.696 1.00 50.10 O
ATOM 6610 NE2 GLN B 212 224.175 228.831 221.722 1.00 50.10 N
ATOM 6611 N LEU B 213 221.339 226.943 222.767 1.00 45.72 N
ATOM 6612 CA LEU B 213 220.726 225.979 221.867 1.00 45.72 C

ATOM 6613 C LEU B 213 221.759 224.968 221.377 1.00 45.72 C
ATOM 6614 O LEU B 213 222.969 225.182 221.461 1.00 45.72 O
ATOM 6615 CB LEU B 213 220.068 226.684 220.683 1.00 45.72 C
ATOM 6616 CG LEU B 213 218.686 227.291 220.919 1.00 45.72 C
ATOM 6617 CD1 LEU B 213 218.783 228.526 221.786 1.00 45.72 C
ATOM 6618 CD2 LEU B 213 218.022 227.618 219.599 1.00 45.72 C
ATOM 6619 N MET B 214 221.263 223.853 220.856 1.00 44.27 N
ATOM 6620 CA MET B 214 222.116 222.757 220.419 1.00 44.27 C
ATOM 6621 C MET B 214 221.415 222.025 219.291 1.00 44.27 C
ATOM 6622 O MET B 214 220.230 222.260 219.025 1.00 44.27 O
ATOM 6623 CB MET B 214 222.421 221.792 221.570 1.00 44.27 C
ATOM 6624 CG MET B 214 223.259 222.383 222.688 1.00 44.27 C
ATOM 6625 SD MET B 214 223.532 221.204 224.024 1.00 44.27 S
ATOM 6626 CE MET B 214 224.424 222.221 225.196 1.00 44.27 C
ATOM 6627 N PRO B 215 222.116 221.130 218.604 1.00 40.57 N
ATOM 6628 CA PRO B 215 221.463 220.297 217.593 1.00 40.57 C
ATOM 6629 C PRO B 215 220.714 219.141 218.230 1.00 40.57 C
ATOM 6630 O PRO B 215 220.949 218.770 219.382 1.00 40.57 O
ATOM 6631 CB PRO B 215 222.633 219.793 216.743 1.00 40.57 C
ATOM 6632 CG PRO B 215 223.788 219.800 217.674 1.00 40.57 C
ATOM 6633 CD PRO B 215 223.579 220.972 218.590 1.00 40.57 C
ATOM 6634 N ASP B 216 219.803 218.564 217.458 1.00 43.63 N
ATOM 6635 CA ASP B 216 218.911 217.538 217.968 1.00 43.63 C
ATOM 6636 C ASP B 216 219.109 216.233 217.212 1.00 43.63 C
ATOM 6637 O ASP B 216 219.577 216.201 216.071 1.00 43.63 O
ATOM 6638 CB ASP B 216 217.453 217.998 217.877 1.00 43.63 C
ATOM 6639 CG ASP B 216 216.510 217.092 218.636 1.00 43.63 C
ATOM 6640 OD1 ASP B 216 216.513 217.146 219.883 1.00 43.63 O
ATOM 6641 OD2 ASP B 216 215.771 216.324 217.989 1.00 43.63 O
ATOM 6642 N ASP B 217 218.730 215.144 217.876 1.00 50.22 N
ATOM 6643 CA ASP B 217 218.920 213.794 217.370 1.00 50.22 C
ATOM 6644 C ASP B 217 218.097 213.492 216.130 1.00 50.22 C
ATOM 6645 O ASP B 217 218.358 212.482 215.470 1.00 50.22 O
ATOM 6646 CB ASP B 217 218.553 212.789 218.459 1.00 50.22 C

ATOM 6647 CG ASP B 217 219.429 212.914 219.681 1.00 50.22 C
ATOM 6648 OD1 ASP B 217 220.615 213.278 219.533 1.00 50.22 O
ATOM 6649 OD2 ASP B 217 218.918 212.675 220.794 1.00 50.22 O
ATOM 6650 N TYR B 218 217.110 214.320 215.799 1.00 45.42 N
ATOM 6651 CA TYR B 218 216.162 214.010 214.735 1.00 45.42 C
ATOM 6652 C TYR B 218 216.390 215.011 213.612 1.00 45.42 C
ATOM 6653 O TYR B 218 215.685 216.010 213.479 1.00 45.42 O
ATOM 6654 CB TYR B 218 214.733 214.064 215.273 1.00 45.42 C
ATOM 6655 CG TYR B 218 214.457 213.041 216.350 1.00 45.42 C
ATOM 6656 CD1 TYR B 218 215.249 211.912 216.479 1.00 45.42 C
ATOM 6657 CD2 TYR B 218 213.433 213.224 217.263 1.00 45.42 C
ATOM 6658 CE1 TYR B 218 215.020 210.987 217.468 1.00 45.42 C
ATOM 6659 CE2 TYR B 218 213.184 212.293 218.252 1.00 45.42 C
ATOM 6660 CZ TYR B 218 213.990 211.181 218.356 1.00 45.42 C
ATOM 6661 OH TYR B 218 213.764 210.255 219.345 1.00 45.42 O
ATOM 6662 N SER B 219 217.387 214.724 212.786 1.00 40.97 N
ATOM 6663 CA SER B 219 217.715 215.575 211.655 1.00 40.97 C
ATOM 6664 C SER B 219 217.042 215.006 210.411 1.00 40.97 C
ATOM 6665 O SER B 219 216.250 214.063 210.484 1.00 40.97 O
ATOM 6666 CB SER B 219 219.228 215.690 211.506 1.00 40.97 C
ATOM 6667 OG SER B 219 219.795 216.307 212.647 1.00 40.97 O
ATOM 6668 N ASN B 220 217.355 215.568 209.250 1.00 37.06 N
ATOM 6669 CA ASN B 220 216.686 215.161 208.021 1.00 37.06 C
ATOM 6670 C ASN B 220 217.347 215.908 206.871 1.00 37.06 C
ATOM 6671 O ASN B 220 218.224 216.752 207.080 1.00 37.06 O
ATOM 6672 CB ASN B 220 215.192 215.469 208.081 1.00 37.06 C
ATOM 6673 CG ASN B 220 214.367 214.473 207.311 1.00 37.06 C
ATOM 6674 OD1 ASN B 220 213.141 214.472 207.391 1.00 37.06 O
ATOM 6675 ND2 ASN B 220 215.039 213.579 206.602 1.00 37.06 N
ATOM 6676 N THR B 221 216.923 215.581 205.646 1.00 38.56 N
ATOM 6677 CA THR B 221 217.357 216.368 204.495 1.00 38.56 C
ATOM 6678 C THR B 221 216.875 217.805 204.615 1.00 38.56 C
ATOM 6679 O THR B 221 217.621 218.745 204.325 1.00 38.56 O
ATOM 6680 CB THR B 221 216.880 215.724 203.190 1.00 38.56 C

ATOM 6681 OG1 THR B 221 217.371 216.476 202.073 1.00 38.56 O
ATOM 6682 CG2 THR B 221 215.360 215.637 203.124 1.00 38.56 C
ATOM 6683 N HIS B 222 215.618 218.001 205.032 1.00 38.68 N
ATOM 6684 CA HIS B 222 215.195 219.321 205.487 1.00 38.68 C
ATOM 6685 C HIS B 222 214.094 219.129 206.535 1.00 38.68 C
ATOM 6686 O HIS B 222 212.893 219.172 206.260 1.00 38.68 O
ATOM 6687 CB HIS B 222 214.737 220.173 204.305 1.00 38.68 C
ATOM 6688 CG HIS B 222 213.694 219.515 203.454 1.00 38.68 C
ATOM 6689 ND1 HIS B 222 212.346 219.628 203.712 1.00 38.68 N
ATOM 6690 CD2 HIS B 222 213.803 218.723 202.361 1.00 38.68 C
ATOM 6691 CE1 HIS B 222 211.668 218.946 202.806 1.00 38.68 C
ATOM 6692 NE2 HIS B 222 212.528 218.384 201.977 1.00 38.68 N
ATOM 6693 N SER B 223 214.519 218.895 207.780 1.00 36.82 N
ATOM 6694 CA SER B 223 213.581 218.991 208.903 1.00 36.82 C
ATOM 6695 C SER B 223 214.265 219.371 210.210 1.00 36.82 C
ATOM 6696 O SER B 223 213.718 219.040 211.266 1.00 36.82 O
ATOM 6697 CB SER B 223 212.817 217.675 209.066 1.00 36.82 C
ATOM 6698 OG SER B 223 211.919 217.739 210.159 1.00 36.82 O
ATOM 6699 N THR B 224 215.428 220.019 210.192 1.00 36.00 N
ATOM 6700 CA THR B 224 216.274 220.101 211.375 1.00 36.00 C
ATOM 6701 C THR B 224 215.575 220.831 212.516 1.00 36.00 C
ATOM 6702 O THR B 224 214.792 221.760 212.312 1.00 36.00 O
ATOM 6703 CB THR B 224 217.584 220.811 211.048 1.00 36.00 C
ATOM 6704 OG1 THR B 224 218.461 220.736 212.178 1.00 36.00 O
ATOM 6705 CG2 THR B 224 217.319 222.266 210.725 1.00 36.00 C
ATOM 6706 N ARG B 225 215.885 220.404 213.737 1.00 39.68 N
ATOM 6707 CA ARG B 225 215.294 220.988 214.931 1.00 39.68 C
ATOM 6708 C ARG B 225 216.381 221.197 215.969 1.00 39.68 C
ATOM 6709 O ARG B 225 217.303 220.387 216.084 1.00 39.68 O
ATOM 6710 CB ARG B 225 214.181 220.104 215.505 1.00 39.68 C
ATOM 6711 CG ARG B 225 213.512 220.685 216.743 1.00 39.68 C
ATOM 6712 CD ARG B 225 212.327 219.841 217.193 1.00 39.68 C
ATOM 6713 NE ARG B 225 212.717 218.515 217.656 1.00 39.68 N
ATOM 6714 CZ ARG B 225 213.070 218.238 218.905 1.00 39.68 C

ATOM 6715 NH1 ARG B 225 213.413 217.004 219.241 1.00 39.68 N
ATOM 6716 NH2 ARG B 225 213.067 219.194 219.821 1.00 39.68 N
ATOM 6717 N TYR B 226 216.269 222.288 216.712 1.00 41.11 N
ATOM 6718 CA TYR B 226 217.199 222.620 217.778 1.00 41.11 C
ATOM 6719 C TYR B 226 216.480 222.542 219.117 1.00 41.11 C
ATOM 6720 O TYR B 226 215.250 222.512 219.187 1.00 41.11 O
ATOM 6721 CB TYR B 226 217.789 224.014 217.552 1.00 41.11 C
ATOM 6722 CG TYR B 226 218.615 224.108 216.292 1.00 41.11 C
ATOM 6723 CD1 TYR B 226 219.942 223.713 216.277 1.00 41.11 C
ATOM 6724 CD2 TYR B 226 218.058 224.571 215.111 1.00 41.11 C
ATOM 6725 CE1 TYR B 226 220.696 223.794 215.125 1.00 41.11 C
ATOM 6726 CE2 TYR B 226 218.803 224.654 213.956 1.00 41.11 C
ATOM 6727 CZ TYR B 226 220.120 224.264 213.968 1.00 41.11 C
ATOM 6728 OH TYR B 226 220.863 224.345 212.817 1.00 41.11 O
ATOM 6729 N VAL B 227 217.259 222.512 220.194 1.00 38.94 N
ATOM 6730 CA VAL B 227 216.683 222.335 221.521 1.00 38.94 C
ATOM 6731 C VAL B 227 217.695 222.744 222.582 1.00 38.94 C
ATOM 6732 O VAL B 227 218.907 222.675 222.357 1.00 38.94 O
ATOM 6733 CB VAL B 227 216.221 220.882 221.725 1.00 38.94 C
ATOM 6734 CG1 VAL B 227 217.411 219.949 221.721 1.00 38.94 C
ATOM 6735 CG2 VAL B 227 215.436 220.745 223.013 1.00 38.94 C
ATOM 6736 N THR B 228 217.204 223.178 223.742 1.00 40.86 N
ATOM 6737 CA THR B 228 218.071 223.572 224.847 1.00 40.86 C
ATOM 6738 C THR B 228 218.326 222.416 225.808 1.00 40.86 C
ATOM 6739 O THR B 228 219.476 222.025 226.028 1.00 40.86 O
ATOM 6740 CB THR B 228 217.459 224.753 225.604 1.00 40.86 C
ATOM 6741 OG1 THR B 228 217.406 225.900 224.748 1.00 40.86 O
ATOM 6742 CG2 THR B 228 218.279 225.069 226.835 1.00 40.86 C
ATOM 6743 N VAL B 229 217.264 221.862 226.386 1.00 43.09 N
ATOM 6744 CA VAL B 229 217.380 220.797 227.375 1.00 43.09 C
ATOM 6745 C VAL B 229 217.394 219.479 226.608 1.00 43.09 C
ATOM 6746 O VAL B 229 216.366 219.026 226.105 1.00 43.09 O
ATOM 6747 CB VAL B 229 216.245 220.847 228.395 1.00 43.09 C
ATOM 6748 CG1 VAL B 229 216.419 219.750 229.427 1.00 43.09 C

ATOM 6749 CG2 VAL B 229 216.188 222.213 229.045 1.00 43.09 C
ATOM 6750 N LYS B 230 218.570 218.859 226.520 1.00 56.42 N
ATOM 6751 CA LYS B 230 218.725 217.698 225.652 1.00 56.42 C
ATOM 6752 C LYS B 230 217.998 216.480 226.208 1.00 56.42 C
ATOM 6753 O LYS B 230 217.044 215.982 225.600 1.00 56.42 O
ATOM 6754 CB LYS B 230 220.210 217.396 225.446 1.00 56.42 C
ATOM 6755 CG LYS B 230 220.484 216.229 224.511 1.00 56.42 C
ATOM 6756 CD LYS B 230 219.962 216.500 223.112 1.00 56.42 C
ATOM 6757 CE LYS B 230 220.700 217.658 222.467 1.00 56.42 C
ATOM 6758 NZ LYS B 230 222.121 217.321 222.193 1.00 56.42 N
ATOM 6759 N ASP B 231 218.432 215.980 227.366 1.00 73.52 N
ATOM 6760 CA ASP B 231 217.934 214.686 227.816 1.00 73.52 C
ATOM 6761 C ASP B 231 216.777 214.756 228.804 1.00 73.52 C
ATOM 6762 O ASP B 231 215.653 214.365 228.471 1.00 73.52 O
ATOM 6763 CB ASP B 231 219.077 213.888 228.447 1.00 73.52 C
ATOM 6764 CG ASP B 231 218.656 212.488 228.852 1.00 73.52 C
ATOM 6765 OD1 ASP B 231 218.498 211.631 227.958 1.00 73.52 O
ATOM 6766 OD2 ASP B 231 218.482 212.247 230.065 1.00 73.52 O
ATOM 6767 N GLN B 232 217.027 215.272 230.008 1.00 79.81 N
ATOM 6768 CA GLN B 232 216.072 215.086 231.094 1.00 79.81 C
ATOM 6769 C GLN B 232 216.591 215.715 232.383 1.00 79.81 C
ATOM 6770 O GLN B 232 217.731 216.189 232.431 1.00 79.81 O
ATOM 6771 CB GLN B 232 215.810 213.585 231.282 1.00 79.81 C
ATOM 6772 CG GLN B 232 214.658 213.196 232.193 1.00 79.81 C
ATOM 6773 CD GLN B 232 214.492 211.691 232.290 1.00 79.81 C
ATOM 6774 OE1 GLN B 232 215.274 210.931 231.716 1.00 79.81 O
ATOM 6775 NE2 GLN B 232 213.474 211.252 233.017 1.00 79.81 N
ATOM 6776 N TRP B 233 215.766 215.734 233.429 1.00 80.92 N
ATOM 6777 CA TRP B 233 216.250 215.976 234.786 1.00 80.92 C
ATOM 6778 C TRP B 233 215.386 215.161 235.738 1.00 80.92 C
ATOM 6779 O TRP B 233 214.223 215.505 235.970 1.00 80.92 O
ATOM 6780 CB TRP B 233 216.219 217.457 235.146 1.00 80.92 C
ATOM 6781 CG TRP B 233 216.784 217.703 236.504 1.00 80.92 C
ATOM 6782 CD1 TRP B 233 216.093 218.004 237.641 1.00 80.92 C

ATOM 6783 CD2 TRP B 233 218.162 217.621 236.880 1.00 80.92 C
ATOM 6784 NE1 TRP B 233 216.959 218.136 238.699 1.00 80.92 N
ATOM 6785 CE2 TRP B 233 218.235 217.901 238.258 1.00 80.92 C
ATOM 6786 CE3 TRP B 233 219.342 217.345 236.183 1.00 80.92 C
ATOM 6787 CZ2 TRP B 233 219.443 217.921 238.952 1.00 80.92 C
ATOM 6788 CZ3 TRP B 233 220.539 217.360 236.873 1.00 80.92 C
ATOM 6789 CH2 TRP B 233 220.581 217.646 238.243 1.00 80.92 C
ATOM 6790 N HIS B 234 215.951 214.083 236.281 1.00 83.79 N
ATOM 6791 CA HIS B 234 215.215 213.150 237.129 1.00 83.79 C
ATOM 6792 C HIS B 234 216.058 212.718 238.323 1.00 83.79 C
ATOM 6793 O HIS B 234 216.095 211.537 238.686 1.00 83.79 O
ATOM 6794 CB HIS B 234 214.750 211.938 236.322 1.00 83.79 C
ATOM 6795 CG HIS B 234 215.871 211.128 235.748 1.00 83.79 C
ATOM 6796 ND1 HIS B 234 216.574 211.521 234.629 1.00 83.79 N
ATOM 6797 CD2 HIS B 234 216.406 209.945 236.132 1.00 83.79 C
ATOM 6798 CE1 HIS B 234 217.497 210.618 234.353 1.00 83.79 C
ATOM 6799 NE2 HIS B 234 217.417 209.651 235.249 1.00 83.79 N
ATOM 6800 N SER B 235 216.740 213.667 238.960 1.00 88.27 N
ATOM 6801 CA SER B 235 217.591 213.333 240.092 1.00 88.27 C
ATOM 6802 C SER B 235 216.763 212.782 241.251 1.00 88.27 C
ATOM 6803 O SER B 235 215.554 213.007 241.353 1.00 88.27 O
ATOM 6804 CB SER B 235 218.387 214.555 240.545 1.00 88.27 C
ATOM 6805 OG SER B 235 219.309 214.950 239.546 1.00 88.27 O
ATOM 6806 N ARG B 236 217.440 212.045 242.135 1.00 88.39 N
ATOM 6807 CA ARG B 236 216.746 211.331 243.202 1.00 88.39 C
ATOM 6808 C ARG B 236 216.129 212.302 244.202 1.00 88.39 C
ATOM 6809 O ARG B 236 214.909 212.314 244.404 1.00 88.39 O
ATOM 6810 CB ARG B 236 217.715 210.375 243.904 1.00 88.39 C
ATOM 6811 CG ARG B 236 217.057 209.376 244.856 1.00 88.39 C
ATOM 6812 CD ARG B 236 216.857 209.937 246.256 1.00 88.39 C
ATOM 6813 NE ARG B 236 218.097 210.434 246.844 1.00 88.39 N
ATOM 6814 CZ ARG B 236 219.000 209.666 247.444 1.00 88.39 C
ATOM 6815 NH1 ARG B 236 218.805 208.357 247.536 1.00 88.39 N
ATOM 6816 NH2 ARG B 236 220.099 210.206 247.952 1.00 88.39 N

ATOM 6817 N GLY B 237 216.956 213.117 244.841 1.00 89.79 N
ATOM 6818 CA GLY B 237 216.493 214.020 245.871 1.00 89.79 C
ATOM 6819 C GLY B 237 216.670 213.447 247.263 1.00 89.79 C
ATOM 6820 O GLY B 237 217.477 212.550 247.510 1.00 89.79 O
ATOM 6821 N SER B 238 215.893 213.993 248.191 1.00 82.98 N
ATOM 6822 CA SER B 238 215.920 213.546 249.574 1.00 82.98 C
ATOM 6823 C SER B 238 214.897 212.440 249.798 1.00 82.98 C
ATOM 6824 O SER B 238 213.880 212.357 249.104 1.00 82.98 O
ATOM 6825 CB SER B 238 215.644 214.710 250.525 1.00 82.98 C
ATOM 6826 OG SER B 238 214.320 215.187 250.369 1.00 82.98 O
ATOM 6827 N THR B 239 215.178 211.588 250.779 1.00 76.83 N
ATOM 6828 CA THR B 239 214.289 210.483 251.103 1.00 76.83 C
ATOM 6829 C THR B 239 213.121 210.964 251.952 1.00 76.83 C
ATOM 6830 O THR B 239 213.290 211.777 252.865 1.00 76.83 O
ATOM 6831 CB THR B 239 215.048 209.383 251.843 1.00 76.83 C
ATOM 6832 OG1 THR B 239 215.592 209.912 253.058 1.00 76.83 O
ATOM 6833 CG2 THR B 239 216.174 208.842 250.982 1.00 76.83 C
ATOM 6834 N TRP B 240 211.927 210.457 251.639 1.00 72.40 N
ATOM 6835 CA TRP B 240 210.716 210.764 252.399 1.00 72.40 C
ATOM 6836 C TRP B 240 210.349 212.243 252.269 1.00 72.40 C
ATOM 6837 O TRP B 240 210.044 212.916 253.254 1.00 72.40 O
ATOM 6838 CB TRP B 240 210.873 210.373 253.870 1.00 72.40 C
ATOM 6839 CG TRP B 240 211.005 208.905 254.109 1.00 72.40 C
ATOM 6840 CD1 TRP B 240 210.860 207.905 253.195 1.00 72.40 C
ATOM 6841 CD2 TRP B 240 211.314 208.270 255.353 1.00 72.40 C
ATOM 6842 NE1 TRP B 240 211.059 206.685 253.793 1.00 72.40 N
ATOM 6843 CE2 TRP B 240 211.339 206.883 255.119 1.00 72.40 C
ATOM 6844 CE3 TRP B 240 211.571 208.741 256.643 1.00 72.40 C
ATOM 6845 CZ2 TRP B 240 211.611 205.963 256.125 1.00 72.40 C
ATOM 6846 CZ3 TRP B 240 211.840 207.827 257.639 1.00 72.40 C
ATOM 6847 CH2 TRP B 240 211.858 206.455 257.376 1.00 72.40 C
ATOM 6848 N LEU B 241 210.380 212.747 251.038 1.00 73.91 N
ATOM 6849 CA LEU B 241 210.082 214.153 250.787 1.00 73.91 C
ATOM 6850 C LEU B 241 209.382 214.268 249.443 1.00 73.91 C

ATOM 6851 O LEU B 241 209.898 213.790 248.429 1.00 73.91 O
ATOM 6852 CB LEU B 241 211.358 214.997 250.815 1.00 73.91 C
ATOM 6853 CG LEU B 241 211.194 216.518 250.801 1.00 73.91 C
ATOM 6854 CD1 LEU B 241 212.349 217.174 251.537 1.00 73.91 C
ATOM 6855 CD2 LEU B 241 211.106 217.046 249.379 1.00 73.91 C
ATOM 6856 N TYR B 242 208.213 214.901 249.443 1.00 71.23 N
ATOM 6857 CA TYR B 242 207.375 215.009 248.254 1.00 71.23 C
ATOM 6858 C TYR B 242 207.725 216.288 247.505 1.00 71.23 C
ATOM 6859 O TYR B 242 207.377 217.387 247.948 1.00 71.23 O
ATOM 6860 CB TYR B 242 205.907 215.002 248.659 1.00 71.23 C
ATOM 6861 CG TYR B 242 204.943 215.068 247.504 1.00 71.23 C
ATOM 6862 CD1 TYR B 242 204.624 213.932 246.778 1.00 71.23 C
ATOM 6863 CD2 TYR B 242 204.358 216.267 247.136 1.00 71.23 C
ATOM 6864 CE1 TYR B 242 203.740 213.989 245.726 1.00 71.23 C
ATOM 6865 CE2 TYR B 242 203.478 216.334 246.082 1.00 71.23 C
ATOM 6866 CZ TYR B 242 203.171 215.192 245.382 1.00 71.23 C
ATOM 6867 OH TYR B 242 202.290 215.254 244.331 1.00 71.23 O
ATOM 6868 N ARG B 243 208.402 216.154 246.366 1.00 72.02 N
ATOM 6869 CA ARG B 243 208.840 217.304 245.589 1.00 72.02 C
ATOM 6870 C ARG B 243 208.408 217.159 244.138 1.00 72.02 C
ATOM 6871 O ARG B 243 208.485 216.069 243.564 1.00 72.02 O
ATOM 6872 CB ARG B 243 210.359 217.470 245.658 1.00 72.02 C
ATOM 6873 CG ARG B 243 211.127 216.357 244.978 1.00 72.02 C
ATOM 6874 CD ARG B 243 212.624 216.577 245.085 1.00 72.02 C
ATOM 6875 NE ARG B 243 213.374 215.485 244.472 1.00 72.02 N
ATOM 6876 CZ ARG B 243 213.724 215.451 243.191 1.00 72.02 C
ATOM 6877 NH1 ARG B 243 213.396 216.452 242.390 1.00 72.02 N
ATOM 6878 NH2 ARG B 243 214.405 214.422 242.710 1.00 72.02 N
ATOM 6879 N GLU B 244 207.956 218.265 243.553 1.00 67.62 N
ATOM 6880 CA GLU B 244 207.601 218.338 242.144 1.00 67.62 C
ATOM 6881 C GLU B 244 208.539 219.310 241.442 1.00 67.62 C
ATOM 6882 O GLU B 244 208.867 220.369 241.984 1.00 67.62 O
ATOM 6883 CB GLU B 244 206.148 218.781 241.957 1.00 67.62 C
ATOM 6884 CG GLU B 244 205.891 220.227 242.325 1.00 67.62 C

ATOM 6885 CD GLU B 244 205.655 220.409 243.808 1.00 67.62 C
ATOM 6886 OE1 GLU B 244 205.987 219.483 244.577 1.00 67.62 O
ATOM 6887 OE2 GLU B 244 205.139 221.473 244.206 1.00 67.62 O
ATOM 6888 N THR B 245 208.967 218.950 240.235 1.00 58.99 N
ATOM 6889 CA THR B 245 209.989 219.700 239.523 1.00 58.99 C
ATOM 6890 C THR B 245 209.490 220.123 238.151 1.00 58.99 C
ATOM 6891 O THR B 245 208.545 219.547 237.607 1.00 58.99 O
ATOM 6892 CB THR B 245 211.272 218.882 239.366 1.00 58.99 C
ATOM 6893 OG1 THR B 245 210.987 217.677 238.645 1.00 58.99 O
ATOM 6894 CG2 THR B 245 211.840 218.536 240.722 1.00 58.99 C
ATOM 6895 N CYS B 246 210.141 221.142 237.603 1.00 53.17 N
ATOM 6896 CA CYS B 246 209.869 221.638 236.264 1.00 53.17 C
ATOM 6897 C CYS B 246 210.990 221.230 235.318 1.00 53.17 C
ATOM 6898 O CYS B 246 212.112 220.936 235.734 1.00 53.17 O
ATOM 6899 CB CYS B 246 209.716 223.160 236.272 1.00 53.17 C
ATOM 6900 SG CYS B 246 208.305 223.762 237.222 1.00 53.17 S
ATOM 6901 N ASN B 247 210.665 221.193 234.032 1.00 45.50 N
ATOM 6902 CA ASN B 247 211.613 220.790 233.001 1.00 45.50 C
ATOM 6903 C ASN B 247 211.510 221.724 231.801 1.00 45.50 C
ATOM 6904 O ASN B 247 211.312 221.284 230.668 1.00 45.50 O
ATOM 6905 CB ASN B 247 211.391 219.338 232.589 1.00 45.50 C
ATOM 6906 CG ASN B 247 212.525 218.793 231.747 1.00 45.50 C
ATOM 6907 OD1 ASN B 247 213.495 219.495 231.466 1.00 45.50 O
ATOM 6908 ND2 ASN B 247 212.407 217.538 231.335 1.00 45.50 N
ATOM 6909 N LEU B 248 211.582 223.035 232.060 1.00 45.03 N
ATOM 6910 CA LEU B 248 211.470 224.049 231.014 1.00 45.03 C
ATOM 6911 C LEU B 248 212.391 223.744 229.841 1.00 45.03 C
ATOM 6912 O LEU B 248 213.515 223.264 230.010 1.00 45.03 O
ATOM 6913 CB LEU B 248 211.801 225.433 231.571 1.00 45.03 C
ATOM 6914 CG LEU B 248 210.656 226.223 232.199 1.00 45.03 C
ATOM 6915 CD1 LEU B 248 209.614 226.524 231.145 1.00 45.03 C
ATOM 6916 CD2 LEU B 248 210.044 225.470 233.363 1.00 45.03 C
ATOM 6917 N ASN B 249 211.898 224.027 228.640 1.00 41.35 N
ATOM 6918 CA ASN B 249 212.582 223.635 227.418 1.00 41.35 C

ATOM 6919 C ASN B 249 212.031 224.417 226.236 1.00 41.35 C
ATOM 6920 O ASN B 249 210.813 224.550 226.087 1.00 41.35 O
ATOM 6921 CB ASN B 249 212.430 222.132 227.186 1.00 41.35 C
ATOM 6922 CG ASN B 249 213.259 221.631 226.024 1.00 41.35 C
ATOM 6923 OD1 ASN B 249 213.949 222.400 225.359 1.00 41.35 O
ATOM 6924 ND2 ASN B 249 213.192 220.331 225.770 1.00 41.35 N
ATOM 6925 N CYS B 250 212.919 224.935 225.394 1.00 42.09 N
ATOM 6926 CA CYS B 250 212.542 225.710 224.222 1.00 42.09 C
ATOM 6927 C CYS B 250 213.243 225.150 222.996 1.00 42.09 C
ATOM 6928 O CYS B 250 214.382 224.683 223.081 1.00 42.09 O
ATOM 6929 CB CYS B 250 212.892 227.184 224.406 1.00 42.09 C
ATOM 6930 SG CYS B 250 214.642 227.465 224.647 1.00 42.09 S
ATOM 6931 N MET B 251 212.561 225.203 221.855 1.00 48.84 N
ATOM 6932 CA MET B 251 213.057 224.572 220.643 1.00 48.84 C
ATOM 6933 C MET B 251 212.615 225.379 219.433 1.00 48.84 C
ATOM 6934 O MET B 251 211.497 225.896 219.400 1.00 48.84 O
ATOM 6935 CB MET B 251 212.560 223.128 220.545 1.00 48.84 C
ATOM 6936 CG MET B 251 211.056 222.993 220.475 1.00 48.84 C
ATOM 6937 SD MET B 251 210.536 221.271 220.550 1.00 48.84 S
ATOM 6938 CE MET B 251 210.861 220.908 222.272 1.00 48.84 C
ATOM 6939 N VAL B 252 213.498 225.476 218.440 1.00 56.06 N
ATOM 6940 CA VAL B 252 213.274 226.300 217.252 1.00 56.06 C
ATOM 6941 C VAL B 252 213.457 225.391 216.041 1.00 56.06 C
ATOM 6942 O VAL B 252 214.571 225.216 215.540 1.00 56.06 O
ATOM 6943 CB VAL B 252 214.222 227.500 217.184 1.00 56.06 C
ATOM 6944 CG1 VAL B 252 214.033 228.245 215.881 1.00 56.06 C
ATOM 6945 CG2 VAL B 252 214.001 228.418 218.367 1.00 56.06 C
ATOM 6946 N THR B 253 212.363 224.817 215.553 1.00 43.40 N
ATOM 6947 CA THR B 253 212.438 223.944 214.393 1.00 43.40 C
ATOM 6948 C THR B 253 212.539 224.758 213.107 1.00 43.40 C
ATOM 6949 O THR B 253 212.238 225.952 213.070 1.00 43.40 O
ATOM 6950 CB THR B 253 211.219 223.028 214.331 1.00 43.40 C
ATOM 6951 OG1 THR B 253 211.370 222.106 213.246 1.00 43.40 O
ATOM 6952 CG2 THR B 253 209.962 223.840 214.119 1.00 43.40 C

ATOM 6953 N ILE B 254 212.975 224.090 212.038 1.00 37.44 N
ATOM 6954 CA ILE B 254 213.063 224.711 210.721 1.00 37.44 C
ATOM 6955 C ILE B 254 212.577 223.737 209.658 1.00 37.44 C
ATOM 6956 O ILE B 254 213.332 222.871 209.203 1.00 37.44 O
ATOM 6957 CB ILE B 254 214.498 225.172 210.417 1.00 37.44 C
ATOM 6958 CG1 ILE B 254 214.917 226.282 211.377 1.00 37.44 C
ATOM 6959 CG2 ILE B 254 214.613 225.631 208.979 1.00 37.44 C
ATOM 6960 CD1 ILE B 254 216.380 226.617 211.303 1.00 37.44 C
ATOM 6961 N THR B 255 211.326 223.879 209.244 1.00 33.72 N
ATOM 6962 CA THR B 255 210.721 223.014 208.247 1.00 33.72 C
ATOM 6963 C THR B 255 210.744 223.694 206.881 1.00 33.72 C
ATOM 6964 O THR B 255 211.367 224.742 206.693 1.00 33.72 O
ATOM 6965 CB THR B 255 209.301 222.650 208.670 1.00 33.72 C
ATOM 6966 OG1 THR B 255 208.497 223.833 208.700 1.00 33.72 O
ATOM 6967 CG2 THR B 255 209.318 222.042 210.051 1.00 33.72 C
ATOM 6968 N THR B 256 210.055 223.093 205.910 1.00 34.88 N
ATOM 6969 CA THR B 256 209.906 223.676 204.575 1.00 34.88 C
ATOM 6970 C THR B 256 208.445 223.521 204.167 1.00 34.88 C
ATOM 6971 O THR B 256 207.980 222.403 203.932 1.00 34.88 O
ATOM 6972 CB THR B 256 210.824 223.005 203.563 1.00 34.88 C
ATOM 6973 OG1 THR B 256 210.448 221.631 203.424 1.00 34.88 O
ATOM 6974 CG2 THR B 256 212.266 223.078 204.024 1.00 34.88 C
ATOM 6975 N ALA B 257 207.727 224.638 204.079 1.00 39.49 N
ATOM 6976 CA ALA B 257 206.322 224.594 203.710 1.00 39.49 C
ATOM 6977 C ALA B 257 206.172 224.391 202.206 1.00 39.49 C
ATOM 6978 O ALA B 257 207.130 224.494 201.437 1.00 39.49 O
ATOM 6979 CB ALA B 257 205.612 225.875 204.141 1.00 39.49 C
ATOM 6980 N ARG B 258 204.940 224.100 201.785 1.00 48.80 N
ATOM 6981 CA ARG B 258 204.665 223.872 200.368 1.00 48.80 C
ATOM 6982 C ARG B 258 203.188 224.174 200.115 1.00 48.80 C
ATOM 6983 O ARG B 258 202.326 223.354 200.438 1.00 48.80 O
ATOM 6984 CB ARG B 258 205.018 222.450 199.969 1.00 48.80 C
ATOM 6985 CG ARG B 258 204.835 222.157 198.496 1.00 48.80 C
ATOM 6986 CD ARG B 258 205.343 220.771 198.162 1.00 48.80 C

ATOM 6987 NE ARG B 258 205.161 220.445 196.754 1.00 48.80 N
ATOM 6988 CZ ARG B 258 205.558 219.306 196.200 1.00 48.80 C
ATOM 6989 NH1 ARG B 258 205.353 219.086 194.911 1.00 48.80 N
ATOM 6990 NH2 ARG B 258 206.165 218.387 196.937 1.00 48.80 N
ATOM 6991 N SER B 259 202.916 225.339 199.539 1.00 52.73 N
ATOM 6992 CA SER B 259 201.568 225.728 199.159 1.00 52.73 C
ATOM 6993 C SER B 259 201.413 225.635 197.648 1.00 52.73 C
ATOM 6994 O SER B 259 202.388 225.745 196.901 1.00 52.73 O
ATOM 6995 CB SER B 259 201.250 227.149 199.624 1.00 52.73 C
ATOM 6996 OG SER B 259 202.040 228.094 198.926 1.00 52.73 O
ATOM 6997 N LYS B 260 200.175 225.438 197.202 1.00 59.66 N
ATOM 6998 CA LYS B 260 199.891 225.260 195.787 1.00 59.66 C
ATOM 6999 C LYS B 260 198.739 226.167 195.379 1.00 59.66 C
ATOM 7000 O LYS B 260 197.969 226.636 196.221 1.00 59.66 O
ATOM 7001 CB LYS B 260 199.577 223.793 195.460 1.00 59.66 C
ATOM 7002 CG LYS B 260 198.320 223.243 196.105 1.00 59.66 C
ATOM 7003 CD LYS B 260 197.133 223.348 195.168 1.00 59.66 C
ATOM 7004 CE LYS B 260 195.909 222.679 195.754 1.00 59.66 C
ATOM 7005 NZ LYS B 260 194.737 222.790 194.845 1.00 59.66 N
ATOM 7006 N TYR B 261 198.654 226.422 194.075 1.00 66.71 N
ATOM 7007 CA TYR B 261 197.703 227.374 193.520 1.00 66.71 C
ATOM 7008 C TYR B 261 196.277 226.989 193.915 1.00 66.71 C
ATOM 7009 O TYR B 261 195.951 225.798 193.964 1.00 66.71 O
ATOM 7010 CB TYR B 261 197.852 227.402 191.996 1.00 66.71 C
ATOM 7011 CG TYR B 261 196.979 228.387 191.253 1.00 66.71 C
ATOM 7012 CD1 TYR B 261 197.282 229.741 191.237 1.00 66.71 C
ATOM 7013 CD2 TYR B 261 195.870 227.956 190.540 1.00 66.71 C
ATOM 7014 CE1 TYR B 261 196.494 230.640 190.547 1.00 66.71 C
ATOM 7015 CE2 TYR B 261 195.077 228.847 189.848 1.00 66.71 C
ATOM 7016 CZ TYR B 261 195.393 230.188 189.855 1.00 66.71 C
ATOM 7017 OH TYR B 261 194.605 231.081 189.167 1.00 66.71 O
ATOM 7018 N PRO B 262 195.391 227.963 194.191 1.00 60.57 N
ATOM 7019 CA PRO B 262 195.590 229.415 194.094 1.00 60.57 C
ATOM 7020 C PRO B 262 196.225 230.087 195.316 1.00 60.57 C

ATOM 7021 O PRO B 262 195.919 231.248 195.577 1.00 60.57 O
ATOM 7022 CB PRO B 262 194.166 229.936 193.905 1.00 60.57 C
ATOM 7023 CG PRO B 262 193.332 228.964 194.636 1.00 60.57 C
ATOM 7024 CD PRO B 262 193.982 227.625 194.448 1.00 60.57 C
ATOM 7025 N TYR B 263 197.082 229.374 196.045 1.00 62.81 N
ATOM 7026 CA TYR B 263 197.987 229.985 197.019 1.00 62.81 C
ATOM 7027 C TYR B 263 197.241 230.675 198.165 1.00 62.81 C
ATOM 7028 O TYR B 263 197.354 231.886 198.359 1.00 62.81 O
ATOM 7029 CB TYR B 263 198.909 230.997 196.327 1.00 62.81 C
ATOM 7030 CG TYR B 263 199.865 230.432 195.305 1.00 62.81 C
ATOM 7031 CD1 TYR B 263 200.138 229.081 195.249 1.00 62.81 C
ATOM 7032 CD2 TYR B 263 200.491 231.262 194.389 1.00 62.81 C
ATOM 7033 CE1 TYR B 263 201.006 228.564 194.311 1.00 62.81 C
ATOM 7034 CE2 TYR B 263 201.362 230.758 193.449 1.00 62.81 C
ATOM 7035 CZ TYR B 263 201.616 229.408 193.414 1.00 62.81 C
ATOM 7036 OH TYR B 263 202.486 228.901 192.477 1.00 62.81 O
ATOM 7037 N HIS B 264 196.465 229.906 198.929 1.00 55.36 N
ATOM 7038 CA HIS B 264 195.905 230.494 200.145 1.00 55.36 C
ATOM 7039 C HIS B 264 195.885 229.508 201.312 1.00 55.36 C
ATOM 7040 O HIS B 264 194.925 229.471 202.088 1.00 55.36 O
ATOM 7041 CB HIS B 264 194.512 231.079 199.894 1.00 55.36 C
ATOM 7042 CG HIS B 264 193.483 230.071 199.493 1.00 55.36 C
ATOM 7043 ND1 HIS B 264 193.347 229.619 198.198 1.00 55.36 N
ATOM 7044 CD2 HIS B 264 192.522 229.444 200.212 1.00 55.36 C
ATOM 7045 CE1 HIS B 264 192.355 228.750 198.139 1.00 55.36 C
ATOM 7046 NE2 HIS B 264 191.838 228.625 199.348 1.00 55.36 N
ATOM 7047 N PHE B 265 196.950 228.711 201.468 1.00 45.11 N
ATOM 7048 CA PHE B 265 197.251 228.048 202.739 1.00 45.11 C
ATOM 7049 C PHE B 265 198.567 227.279 202.681 1.00 45.11 C
ATOM 7050 O PHE B 265 198.960 226.790 201.618 1.00 45.11 O
ATOM 7051 CB PHE B 265 196.117 227.111 203.180 1.00 45.11 C
ATOM 7052 CG PHE B 265 195.900 225.928 202.284 1.00 45.11 C
ATOM 7053 CD1 PHE B 265 195.060 226.016 201.191 1.00 45.11 C
ATOM 7054 CD2 PHE B 265 196.494 224.711 202.568 1.00 45.11 C

ATOM 7055 CE1 PHE B 265 194.844 224.921 200.377 1.00 45.11 C
ATOM 7056 CE2 PHE B 265 196.282 223.614 201.759 1.00 45.11 C
ATOM 7057 CZ PHE B 265 195.455 223.719 200.663 1.00 45.11 C
ATOM 7058 N PHE B 266 199.253 227.169 203.817 1.00 40.80 N
ATOM 7059 CA PHE B 266 200.492 226.409 203.884 1.00 40.80 C
ATOM 7060 C PHE B 266 200.200 224.942 204.185 1.00 40.80 C
ATOM 7061 O PHE B 266 199.089 224.562 204.563 1.00 40.80 O
ATOM 7062 CB PHE B 266 201.427 226.952 204.965 1.00 40.80 C
ATOM 7063 CG PHE B 266 201.924 228.344 204.718 1.00 40.80 C
ATOM 7064 CD1 PHE B 266 201.734 228.970 203.503 1.00 40.80 C
ATOM 7065 CD2 PHE B 266 202.608 229.018 205.711 1.00 40.80 C
ATOM 7066 CE1 PHE B 266 202.191 230.250 203.295 1.00 40.80 C
ATOM 7067 CE2 PHE B 266 203.070 230.294 205.510 1.00 40.80 C
ATOM 7068 CZ PHE B 266 202.865 230.912 204.301 1.00 40.80 C
ATOM 7069 N ALA B 267 201.220 224.110 204.010 1.00 40.99 N
ATOM 7070 CA ALA B 267 201.166 222.704 204.397 1.00 40.99 C
ATOM 7071 C ALA B 267 202.498 222.283 205.008 1.00 40.99 C
ATOM 7072 O ALA B 267 203.069 221.257 204.639 1.00 40.99 O
ATOM 7073 CB ALA B 267 200.799 221.821 203.208 1.00 40.99 C
ATOM 7074 N THR B 268 203.013 223.104 205.931 1.00 38.63 N
ATOM 7075 CA THR B 268 204.367 222.963 206.465 1.00 38.63 C
ATOM 7076 C THR B 268 204.653 221.540 206.932 1.00 38.63 C
ATOM 7077 O THR B 268 203.767 220.832 207.417 1.00 38.63 O
ATOM 7078 CB THR B 268 204.576 223.931 207.627 1.00 38.63 C
ATOM 7079 OG1 THR B 268 203.657 223.615 208.678 1.00 38.63 O
ATOM 7080 CG2 THR B 268 204.338 225.358 207.172 1.00 38.63 C
ATOM 7081 N SER B 269 205.912 221.126 206.786 1.00 40.04 N
ATOM 7082 CA SER B 269 206.272 219.718 206.904 1.00 40.04 C
ATOM 7083 C SER B 269 206.444 219.262 208.347 1.00 40.04 C
ATOM 7084 O SER B 269 207.429 218.595 208.678 1.00 40.04 O
ATOM 7085 CB SER B 269 207.562 219.455 206.127 1.00 40.04 C
ATOM 7086 OG SER B 269 208.012 218.127 206.309 1.00 40.04 O
ATOM 7087 N THR B 270 205.485 219.609 209.205 1.00 39.24 N
ATOM 7088 CA THR B 270 205.333 218.979 210.510 1.00 39.24 C

ATOM 7089 C THR B 270 203.867 218.829 210.889 1.00 39.24 C
ATOM 7090 O THR B 270 203.575 218.412 212.016 1.00 39.24 O
ATOM 7091 CB THR B 270 206.069 219.756 211.610 1.00 39.24 C
ATOM 7092 OG1 THR B 270 205.639 221.122 211.609 1.00 39.24 O
ATOM 7093 CG2 THR B 270 207.570 219.679 211.423 1.00 39.24 C
ATOM 7094 N GLY B 271 202.942 219.154 209.991 1.00 40.03 N
ATOM 7095 CA GLY B 271 201.521 219.099 210.265 1.00 40.03 C
ATOM 7096 C GLY B 271 200.857 220.450 210.402 1.00 40.03 C
ATOM 7097 O GLY B 271 199.634 220.536 210.240 1.00 40.03 O
ATOM 7098 N ASP B 272 201.616 221.502 210.693 1.00 40.43 N
ATOM 7099 CA ASP B 272 201.036 222.824 210.868 1.00 40.43 C
ATOM 7100 C ASP B 272 200.413 223.322 209.570 1.00 40.43 C
ATOM 7101 O ASP B 272 200.870 223.002 208.470 1.00 40.43 O
ATOM 7102 CB ASP B 272 202.100 223.807 211.346 1.00 40.43 C
ATOM 7103 CG ASP B 272 202.570 223.511 212.753 1.00 40.43 C
ATOM 7104 OD1 ASP B 272 201.766 222.981 213.546 1.00 40.43 O
ATOM 7105 OD2 ASP B 272 203.744 223.800 213.065 1.00 40.43 O
ATOM 7106 N VAL B 273 199.355 224.116 209.707 1.00 40.44 N
ATOM 7107 CA VAL B 273 198.637 224.672 208.564 1.00 40.44 C
ATOM 7108 C VAL B 273 198.118 226.048 208.947 1.00 40.44 C
ATOM 7109 O VAL B 273 197.588 226.236 210.045 1.00 40.44 O
ATOM 7110 CB VAL B 273 197.475 223.766 208.113 1.00 40.44 C
ATOM 7111 CG1 VAL B 273 196.652 224.461 207.048 1.00 40.44 C
ATOM 7112 CG2 VAL B 273 198.006 222.453 207.585 1.00 40.44 C
ATOM 7113 N VAL B 274 198.268 227.009 208.042 1.00 45.85 N
ATOM 7114 CA VAL B 274 197.787 228.364 208.265 1.00 45.85 C
ATOM 7115 C VAL B 274 197.077 228.838 207.007 1.00 45.85 C
ATOM 7116 O VAL B 274 197.448 228.474 205.888 1.00 45.85 O
ATOM 7117 CB VAL B 274 198.931 229.326 208.638 1.00 45.85 C
ATOM 7118 CG1 VAL B 274 199.630 228.845 209.891 1.00 45.85 C
ATOM 7119 CG2 VAL B 274 199.903 229.443 207.496 1.00 45.85 C
ATOM 7120 N ASP B 275 196.044 229.657 207.199 1.00 52.18 N
ATOM 7121 CA ASP B 275 195.232 230.155 206.091 1.00 52.18 C
ATOM 7122 C ASP B 275 195.696 231.563 205.729 1.00 52.18 C

ATOM 7123 O ASP B 275 195.043 232.562 206.025 1.00 52.18 O
ATOM 7124 CB ASP B 275 193.754 230.121 206.456 1.00 52.18 C
ATOM 7125 CG ASP B 275 193.216 228.711 206.560 1.00 52.18 C
ATOM 7126 OD1 ASP B 275 193.756 227.821 205.872 1.00 52.18 O
ATOM 7127 OD2 ASP B 275 192.253 228.492 207.324 1.00 52.18 O
ATOM 7128 N ILE B 276 196.848 231.628 205.068 1.00 48.00 N
ATOM 7129 CA ILE B 276 197.380 232.877 204.536 1.00 48.00 C
ATOM 7130 C ILE B 276 198.160 232.558 203.274 1.00 48.00 C
ATOM 7131 O ILE B 276 198.901 231.574 203.222 1.00 48.00 O
ATOM 7132 CB ILE B 276 198.284 233.609 205.550 1.00 48.00 C
ATOM 7133 CG1 ILE B 276 197.487 234.069 206.767 1.00 48.00 C
ATOM 7134 CG2 ILE B 276 198.958 234.792 204.890 1.00 48.00 C
ATOM 7135 CD1 ILE B 276 198.350 234.583 207.890 1.00 48.00 C
ATOM 7136 N SER B 277 197.992 233.388 202.255 1.00 53.38 N
ATOM 7137 CA SER B 277 198.826 233.256 201.075 1.00 53.38 C
ATOM 7138 C SER B 277 200.275 233.557 201.448 1.00 53.38 C
ATOM 7139 O SER B 277 200.529 234.421 202.291 1.00 53.38 O
ATOM 7140 CB SER B 277 198.361 234.204 199.975 1.00 53.38 C
ATOM 7141 OG SER B 277 198.564 235.553 200.354 1.00 53.38 O
ATOM 7142 N PRO B 278 201.241 232.849 200.855 1.00 47.06 N
ATOM 7143 CA PRO B 278 202.646 233.069 201.238 1.00 47.06 C
ATOM 7144 C PRO B 278 203.118 234.496 201.035 1.00 47.06 C
ATOM 7145 O PRO B 278 203.765 235.060 201.924 1.00 47.06 O
ATOM 7146 CB PRO B 278 203.405 232.089 200.335 1.00 47.06 C
ATOM 7147 CG PRO B 278 202.411 231.036 200.005 1.00 47.06 C
ATOM 7148 CD PRO B 278 201.097 231.742 199.898 1.00 47.06 C
ATOM 7149 N PHE B 279 202.815 235.096 199.888 1.00 58.20 N
ATOM 7150 CA PHE B 279 203.258 236.455 199.587 1.00 58.20 C
ATOM 7151 C PHE B 279 202.128 237.453 199.842 1.00 58.20 C
ATOM 7152 O PHE B 279 201.671 238.183 198.967 1.00 58.20 O
ATOM 7153 CB PHE B 279 203.804 236.528 198.159 1.00 58.20 C
ATOM 7154 CG PHE B 279 202.842 236.052 197.097 1.00 58.20 C
ATOM 7155 CD1 PHE B 279 202.733 234.704 196.799 1.00 58.20 C
ATOM 7156 CD2 PHE B 279 202.104 236.954 196.349 1.00 58.20 C

ATOM 7157 CE1 PHE B 279 201.868 234.265 195.822 1.00 58.20 C
ATOM 7158 CE2 PHE B 279 201.238 236.520 195.368 1.00 58.20 C
ATOM 7159 CZ PHE B 279 201.121 235.174 195.103 1.00 58.20 C
ATOM 7160 N TYR B 280 201.699 237.496 201.095 1.00 57.46 N
ATOM 7161 CA TYR B 280 200.758 238.507 201.565 1.00 57.46 C
ATOM 7162 C TYR B 280 201.547 239.571 202.313 1.00 57.46 C
ATOM 7163 O TYR B 280 201.772 239.451 203.519 1.00 57.46 O
ATOM 7164 CB TYR B 280 199.687 237.906 202.466 1.00 57.46 C
ATOM 7165 CG TYR B 280 198.731 238.944 203.003 1.00 57.46 C
ATOM 7166 CD1 TYR B 280 197.711 239.449 202.214 1.00 57.46 C
ATOM 7167 CD2 TYR B 280 198.864 239.439 204.291 1.00 57.46 C
ATOM 7168 CE1 TYR B 280 196.839 240.406 202.700 1.00 57.46 C
ATOM 7169 CE2 TYR B 280 198.002 240.395 204.784 1.00 57.46 C
ATOM 7170 CZ TYR B 280 196.992 240.875 203.987 1.00 57.46 C
ATOM 7171 OH TYR B 280 196.133 241.828 204.481 1.00 57.46 O
ATOM 7172 N ASN B 281 201.962 240.616 201.611 1.00 63.08 N
ATOM 7173 CA ASN B 281 202.579 241.740 202.296 1.00 63.08 C
ATOM 7174 C ASN B 281 201.467 242.596 202.902 1.00 63.08 C
ATOM 7175 O ASN B 281 200.307 242.183 202.982 1.00 63.08 O
ATOM 7176 CB ASN B 281 203.517 242.499 201.357 1.00 63.08 C
ATOM 7177 CG ASN B 281 202.822 243.038 200.127 1.00 63.08 C
ATOM 7178 OD1 ASN B 281 201.610 242.909 199.970 1.00 63.08 O
ATOM 7179 ND2 ASN B 281 203.599 243.654 199.240 1.00 63.08 N
ATOM 7180 N GLY B 282 201.808 243.798 203.363 1.00 62.07 N
ATOM 7181 CA GLY B 282 200.846 244.593 204.104 1.00 62.07 C
ATOM 7182 C GLY B 282 199.673 245.099 203.289 1.00 62.07 C
ATOM 7183 O GLY B 282 198.656 245.486 203.873 1.00 62.07 O
ATOM 7184 N THR B 283 199.782 245.104 201.962 1.00 65.95 N
ATOM 7185 CA THR B 283 198.818 245.795 201.105 1.00 65.95 C
ATOM 7186 C THR B 283 198.389 244.926 199.926 1.00 65.95 C
ATOM 7187 O THR B 283 198.393 245.362 198.774 1.00 65.95 O
ATOM 7188 CB THR B 283 199.391 247.116 200.598 1.00 65.95 C
ATOM 7189 OG1 THR B 283 200.553 246.861 199.800 1.00 65.95 O
ATOM 7190 CG2 THR B 283 199.771 248.016 201.764 1.00 65.95 C

ATOM 7191 N ASN B 284 198.008 243.674 200.190 1.00 66.63 N
ATOM 7192 CA ASN B 284 197.499 242.822 199.120 1.00 66.63 C
ATOM 7193 C ASN B 284 196.281 242.020 199.552 1.00 66.63 C
ATOM 7194 O ASN B 284 196.101 240.881 199.107 1.00 66.63 O
ATOM 7195 CB ASN B 284 198.565 241.855 198.610 1.00 66.63 C
ATOM 7196 CG ASN B 284 199.632 242.541 197.803 1.00 66.63 C
ATOM 7197 OD1 ASN B 284 199.353 243.461 197.038 1.00 66.63 O
ATOM 7198 ND2 ASN B 284 200.864 242.078 197.948 1.00 66.63 N
ATOM 7199 N ARG B 285 195.434 242.581 200.415 1.00 71.20 N
ATOM 7200 CA ARG B 285 194.271 241.825 200.867 1.00 71.20 C
ATOM 7201 C ARG B 285 193.261 241.634 199.742 1.00 71.20 C
ATOM 7202 O ARG B 285 192.607 240.589 199.661 1.00 71.20 O
ATOM 7203 CB ARG B 285 193.617 242.509 202.064 1.00 71.20 C
ATOM 7204 CG ARG B 285 192.460 241.714 202.648 1.00 71.20 C
ATOM 7205 CD ARG B 285 191.922 242.354 203.914 1.00 71.20 C
ATOM 7206 NE ARG B 285 190.733 241.659 204.394 1.00 71.20 N
ATOM 7207 CZ ARG B 285 190.757 240.591 205.183 1.00 71.20 C
ATOM 7208 NH1 ARG B 285 191.915 240.090 205.586 1.00 71.20 N
ATOM 7209 NH2 ARG B 285 189.623 240.023 205.566 1.00 71.20 N
ATOM 7210 N ASN B 286 193.116 242.630 198.863 1.00 78.83 N
ATOM 7211 CA ASN B 286 192.208 242.473 197.731 1.00 78.83 C
ATOM 7212 C ASN B 286 192.779 241.535 196.675 1.00 78.83 C
ATOM 7213 O ASN B 286 192.028 240.779 196.049 1.00 78.83 O
ATOM 7214 CB ASN B 286 191.894 243.832 197.103 1.00 78.83 C
ATOM 7215 CG ASN B 286 190.898 244.652 197.916 1.00 78.83 C
ATOM 7216 OD1 ASN B 286 189.945 244.117 198.480 1.00 78.83 O
ATOM 7217 ND2 ASN B 286 191.113 245.965 197.954 1.00 78.83 N
ATOM 7218 N ALA B 287 194.092 241.569 196.463 1.00 68.04 N
ATOM 7219 CA ALA B 287 194.719 240.749 195.435 1.00 68.04 C
ATOM 7220 C ALA B 287 195.142 239.378 195.943 1.00 68.04 C
ATOM 7221 O ALA B 287 195.159 238.417 195.165 1.00 68.04 O
ATOM 7222 CB ALA B 287 195.936 241.472 194.853 1.00 68.04 C
ATOM 7223 N SER B 288 195.481 239.264 197.225 1.00 61.26 N
ATOM 7224 CA SER B 288 195.935 238.013 197.811 1.00 61.26 C

ATOM 7225 C SER B 288 195.142 237.713 199.076 1.00 61.26 C
ATOM 7226 O SER B 288 194.757 238.619 199.821 1.00 61.26 O
ATOM 7227 CB SER B 288 197.428 238.063 198.131 1.00 61.26 C
ATOM 7228 OG SER B 288 197.691 239.022 199.136 1.00 61.26 O
ATOM 7229 N TYR B 289 194.907 236.427 199.307 1.00 55.22 N
ATOM 7230 CA TYR B 289 194.030 235.966 200.370 1.00 55.22 C
ATOM 7231 C TYR B 289 194.661 236.201 201.741 1.00 55.22 C
ATOM 7232 O TYR B 289 195.884 236.224 201.897 1.00 55.22 O
ATOM 7233 CB TYR B 289 193.718 234.483 200.171 1.00 55.22 C
ATOM 7234 CG TYR B 289 192.739 233.899 201.156 1.00 55.22 C
ATOM 7235 CD1 TYR B 289 191.378 234.121 201.025 1.00 55.22 C
ATOM 7236 CD2 TYR B 289 193.176 233.124 202.216 1.00 55.22 C
ATOM 7237 CE1 TYR B 289 190.480 233.584 201.923 1.00 55.22 C
ATOM 7238 CE2 TYR B 289 192.289 232.585 203.118 1.00 55.22 C
ATOM 7239 CZ TYR B 289 190.942 232.817 202.969 1.00 55.22 C
ATOM 7240 OH TYR B 289 190.055 232.279 203.871 1.00 55.22 O
ATOM 7241 N PHE B 290 193.801 236.388 202.740 1.00 58.10 N
ATOM 7242 CA PHE B 290 194.237 236.506 204.130 1.00 58.10 C
ATOM 7243 C PHE B 290 193.029 236.302 205.028 1.00 58.10 C
ATOM 7244 O PHE B 290 192.045 237.037 204.906 1.00 58.10 O
ATOM 7245 CB PHE B 290 194.873 237.864 204.396 1.00 58.10 C
ATOM 7246 CG PHE B 290 195.353 238.033 205.803 1.00 58.10 C
ATOM 7247 CD1 PHE B 290 196.555 237.484 206.207 1.00 58.10 C
ATOM 7248 CD2 PHE B 290 194.588 238.712 206.731 1.00 58.10 C
ATOM 7249 CE1 PHE B 290 196.994 237.631 207.504 1.00 58.10 C
ATOM 7250 CE2 PHE B 290 195.020 238.859 208.026 1.00 58.10 C
ATOM 7251 CZ PHE B 290 196.225 238.318 208.414 1.00 58.10 C
ATOM 7252 N GLY B 291 193.093 235.317 205.920 1.00 57.24 N
ATOM 7253 CA GLY B 291 191.953 235.037 206.772 1.00 57.24 C
ATOM 7254 C GLY B 291 192.233 234.618 208.202 1.00 57.24 C
ATOM 7255 O GLY B 291 191.438 233.869 208.777 1.00 57.24 O
ATOM 7256 N GLU B 292 193.333 235.074 208.804 1.00 59.72 N
ATOM 7257 CA GLU B 292 193.685 234.630 210.148 1.00 59.72 C
ATOM 7258 C GLU B 292 193.285 235.624 211.230 1.00 59.72 C

ATOM 7259 O GLU B 292 192.441 235.304 212.071 1.00 59.72 O
ATOM 7260 CB GLU B 292 195.188 234.346 210.231 1.00 59.72 C
ATOM 7261 CG GLU B 292 195.621 233.136 209.439 1.00 59.72 C
ATOM 7262 CD GLU B 292 195.055 231.850 210.000 1.00 59.72 C
ATOM 7263 OE1 GLU B 292 194.877 231.761 211.234 1.00 59.72 O
ATOM 7264 OE2 GLU B 292 194.784 230.928 209.204 1.00 59.72 O
ATOM 7265 N ASN B 293 193.847 236.833 211.222 1.00 68.54 N
ATOM 7266 CA ASN B 293 193.568 237.785 212.290 1.00 68.54 C
ATOM 7267 C ASN B 293 194.290 239.100 212.028 1.00 68.54 C
ATOM 7268 O ASN B 293 194.991 239.238 211.023 1.00 68.54 O
ATOM 7269 CB ASN B 293 193.993 237.205 213.641 1.00 68.54 C
ATOM 7270 CG ASN B 293 193.103 237.666 214.778 1.00 68.54 C
ATOM 7271 OD1 ASN B 293 193.182 237.147 215.892 1.00 68.54 O
ATOM 7272 ND2 ASN B 293 192.213 238.607 214.492 1.00 68.54 N
ATOM 7273 N ALA B 294 194.130 240.075 212.914 1.00 71.09 N
ATOM 7274 CA ALA B 294 194.899 241.308 212.865 1.00 71.09 C
ATOM 7275 C ALA B 294 195.735 241.551 214.110 1.00 71.09 C
ATOM 7276 O ALA B 294 196.780 242.193 214.015 1.00 71.09 O
ATOM 7277 CB ALA B 294 193.977 242.515 212.645 1.00 71.09 C
ATOM 7278 N ASP B 295 195.306 241.054 215.269 1.00 70.23 N
ATOM 7279 CA ASP B 295 196.078 241.149 216.499 1.00 70.23 C
ATOM 7280 C ASP B 295 197.025 239.965 216.670 1.00 70.23 C
ATOM 7281 O ASP B 295 197.625 239.810 217.736 1.00 70.23 O
ATOM 7282 CB ASP B 295 195.129 241.251 217.697 1.00 70.23 C
ATOM 7283 CG ASP B 295 195.805 241.803 218.938 1.00 70.23 C
ATOM 7284 OD1 ASP B 295 197.009 242.134 218.869 1.00 70.23 O
ATOM 7285 OD2 ASP B 295 195.129 241.912 219.982 1.00 70.23 O
ATOM 7286 N LYS B 296 197.168 239.131 215.644 1.00 56.17 N
ATOM 7287 CA LYS B 296 198.017 237.945 215.661 1.00 56.17 C
ATOM 7288 C LYS B 296 198.856 237.885 214.394 1.00 56.17 C
ATOM 7289 O LYS B 296 198.939 236.861 213.714 1.00 56.17 O
ATOM 7290 CB LYS B 296 197.181 236.679 215.813 1.00 56.17 C
ATOM 7291 CG LYS B 296 196.369 236.628 217.093 1.00 56.17 C
ATOM 7292 CD LYS B 296 197.266 236.500 218.309 1.00 56.17 C

ATOM 7293 CE LYS B 296 196.453 236.466 219.590 1.00 56.17 C
ATOM 7294 NZ LYS B 296 195.651 235.218 219.706 1.00 56.17 N
ATOM 7295 N PHE B 297 199.491 239.003 214.056 1.00 44.65 N
ATOM 7296 CA PHE B 297 200.228 239.102 212.805 1.00 44.65 C
ATOM 7297 C PHE B 297 201.136 240.319 212.879 1.00 44.65 C
ATOM 7298 O PHE B 297 200.711 241.380 213.344 1.00 44.65 O
ATOM 7299 CB PHE B 297 199.261 239.211 211.625 1.00 44.65 C
ATOM 7300 CG PHE B 297 199.928 239.227 210.288 1.00 44.65 C
ATOM 7301 CD1 PHE B 297 200.390 238.057 209.716 1.00 44.65 C
ATOM 7302 CD2 PHE B 297 200.087 240.412 209.599 1.00 44.65 C
ATOM 7303 CE1 PHE B 297 201.000 238.072 208.481 1.00 44.65 C
ATOM 7304 CE2 PHE B 297 200.696 240.432 208.368 1.00 44.65 C
ATOM 7305 CZ PHE B 297 201.155 239.262 207.807 1.00 44.65 C
ATOM 7306 N PHE B 298 202.378 240.163 212.432 1.00 41.36 N
ATOM 7307 CA PHE B 298 203.362 241.232 212.484 1.00 41.36 C
ATOM 7308 C PHE B 298 204.281 241.132 211.278 1.00 41.36 C
ATOM 7309 O PHE B 298 204.710 240.036 210.909 1.00 41.36 O
ATOM 7310 CB PHE B 298 204.197 241.165 213.768 1.00 41.36 C
ATOM 7311 CG PHE B 298 203.420 241.447 215.018 1.00 41.36 C
ATOM 7312 CD1 PHE B 298 203.160 242.748 215.409 1.00 41.36 C
ATOM 7313 CD2 PHE B 298 202.960 240.412 215.810 1.00 41.36 C
ATOM 7314 CE1 PHE B 298 202.452 243.009 216.563 1.00 41.36 C
ATOM 7315 CE2 PHE B 298 202.252 240.666 216.964 1.00 41.36 C
ATOM 7316 CZ PHE B 298 201.997 241.966 217.341 1.00 41.36 C
ATOM 7317 N ILE B 299 204.583 242.275 210.669 1.00 40.36 N
ATOM 7318 CA ILE B 299 205.516 242.349 209.550 1.00 40.36 C
ATOM 7319 C ILE B 299 206.616 243.330 209.921 1.00 40.36 C
ATOM 7320 O ILE B 299 206.334 244.470 210.313 1.00 40.36 O
ATOM 7321 CB ILE B 299 204.824 242.771 208.247 1.00 40.36 C
ATOM 7322 CG1 ILE B 299 203.797 241.723 207.822 1.00 40.36 C
ATOM 7323 CG2 ILE B 299 205.850 242.977 207.151 1.00 40.36 C
ATOM 7324 CD1 ILE B 299 202.930 242.170 206.676 1.00 40.36 C
ATOM 7325 N PHE B 300 207.865 242.889 209.800 1.00 37.96 N
ATOM 7326 CA PHE B 300 209.026 243.689 210.151 1.00 37.96 C

ATOM 7327 C PHE B 300 209.900 243.922 208.932 1.00 37.96 C
ATOM 7328 O PHE B 300 210.223 242.962 208.220 1.00 37.96 O
ATOM 7329 CB PHE B 300 209.845 242.990 211.242 1.00 37.96 C
ATOM 7330 CG PHE B 300 209.185 242.976 212.590 1.00 37.96 C
ATOM 7331 CD1 PHE B 300 209.289 244.064 213.435 1.00 37.96 C
ATOM 7332 CD2 PHE B 300 208.469 241.873 213.017 1.00 37.96 C
ATOM 7333 CE1 PHE B 300 208.692 244.053 214.677 1.00 37.96 C
ATOM 7334 CE2 PHE B 300 207.868 241.860 214.259 1.00 37.96 C
ATOM 7335 CZ PHE B 300 207.981 242.950 215.089 1.00 37.96 C
ATOM 7336 N PRO B 301 210.302 245.162 208.655 1.00 42.34 N
ATOM 7337 CA PRO B 301 211.303 245.401 207.609 1.00 42.34 C
ATOM 7338 C PRO B 301 212.715 245.350 208.172 1.00 42.34 C
ATOM 7339 O PRO B 301 213.020 245.941 209.210 1.00 42.34 O
ATOM 7340 CB PRO B 301 210.961 246.819 207.134 1.00 42.34 C
ATOM 7341 CG PRO B 301 210.425 247.476 208.355 1.00 42.34 C
ATOM 7342 CD PRO B 301 209.674 246.412 209.113 1.00 42.34 C
ATOM 7343 N ASN B 302 213.592 244.643 207.460 1.00 44.14 N
ATOM 7344 CA ASN B 302 214.989 244.481 207.864 1.00 44.14 C
ATOM 7345 C ASN B 302 215.093 243.849 209.253 1.00 44.14 C
ATOM 7346 O ASN B 302 215.568 244.460 210.211 1.00 44.14 O
ATOM 7347 CB ASN B 302 215.732 245.818 207.828 1.00 44.14 C
ATOM 7348 CG ASN B 302 215.958 246.318 206.426 1.00 44.14 C
ATOM 7349 OD1 ASN B 302 216.263 245.545 205.519 1.00 44.14 O
ATOM 7350 ND2 ASN B 302 215.824 247.622 206.240 1.00 44.14 N
ATOM 7351 N TYR B 303 214.631 242.608 209.349 1.00 41.90 N
ATOM 7352 CA TYR B 303 214.685 241.860 210.602 1.00 41.90 C
ATOM 7353 C TYR B 303 215.915 240.961 210.549 1.00 41.90 C
ATOM 7354 O TYR B 303 215.895 239.886 209.951 1.00 41.90 O
ATOM 7355 CB TYR B 303 213.404 241.066 210.821 1.00 41.90 C
ATOM 7356 CG TYR B 303 213.354 240.353 212.149 1.00 41.90 C
ATOM 7357 CD1 TYR B 303 213.188 241.063 213.329 1.00 41.90 C
ATOM 7358 CD2 TYR B 303 213.451 238.974 212.224 1.00 41.90 C
ATOM 7359 CE1 TYR B 303 213.138 240.421 214.546 1.00 41.90 C
ATOM 7360 CE2 TYR B 303 213.397 238.323 213.438 1.00 41.90 C

ATOM 7361 CZ TYR B 303 213.240 239.052 214.595 1.00 41.90 C
ATOM 7362 OH TYR B 303 213.186 238.407 215.809 1.00 41.90 O
ATOM 7363 N THR B 304 217.001 241.425 211.168 1.00 41.43 N
ATOM 7364 CA THR B 304 218.242 240.664 211.192 1.00 41.43 C
ATOM 7365 C THR B 304 218.022 239.313 211.859 1.00 41.43 C
ATOM 7366 O THR B 304 217.228 239.180 212.794 1.00 41.43 O
ATOM 7367 CB THR B 304 219.330 241.444 211.930 1.00 41.43 C
ATOM 7368 OG1 THR B 304 218.955 241.612 213.302 1.00 41.43 O
ATOM 7369 CG2 THR B 304 219.512 242.812 211.304 1.00 41.43 C
ATOM 7370 N ILE B 305 218.728 238.300 211.367 1.00 41.95 N
ATOM 7371 CA ILE B 305 218.546 236.930 211.834 1.00 41.95 C
ATOM 7372 C ILE B 305 219.898 236.236 211.852 1.00 41.95 C
ATOM 7373 O ILE B 305 220.747 236.479 210.991 1.00 41.95 O
ATOM 7374 CB ILE B 305 217.543 236.160 210.947 1.00 41.95 C
ATOM 7375 CG1 ILE B 305 216.138 236.745 211.085 1.00 41.95 C
ATOM 7376 CG2 ILE B 305 217.543 234.680 211.282 1.00 41.95 C
ATOM 7377 CD1 ILE B 305 215.151 236.186 210.089 1.00 41.95 C
ATOM 7378 N VAL B 306 220.099 235.373 212.851 1.00 48.00 N
ATOM 7379 CA VAL B 306 221.273 234.515 212.859 1.00 48.00 C
ATOM 7380 C VAL B 306 221.232 233.601 211.644 1.00 48.00 C
ATOM 7381 O VAL B 306 220.168 233.109 211.247 1.00 48.00 O
ATOM 7382 CB VAL B 306 221.340 233.707 214.165 1.00 48.00 C
ATOM 7383 CG1 VAL B 306 222.484 232.714 214.116 1.00 48.00 C
ATOM 7384 CG2 VAL B 306 221.495 234.640 215.351 1.00 48.00 C
ATOM 7385 N SER B 307 222.398 233.376 211.039 1.00 52.93 N
ATOM 7386 CA SER B 307 222.474 232.557 209.837 1.00 52.93 C
ATOM 7387 C SER B 307 222.400 231.066 210.132 1.00 52.93 C
ATOM 7388 O SER B 307 222.060 230.288 209.234 1.00 52.93 O
ATOM 7389 CB SER B 307 223.763 232.860 209.073 1.00 52.93 C
ATOM 7390 OG SER B 307 224.898 232.471 209.826 1.00 52.93 O
ATOM 7391 N ASP B 308 222.711 230.650 211.358 1.00 51.52 N
ATOM 7392 CA ASP B 308 222.630 229.242 211.720 1.00 51.52 C
ATOM 7393 C ASP B 308 222.656 229.080 213.233 1.00 51.52 C
ATOM 7394 O ASP B 308 223.491 229.683 213.913 1.00 51.52 O

ATOM 7395 CB ASP B 308 223.773 228.457 211.077 1.00 51.52 C
ATOM 7396 CG ASP B 308 223.627 226.962 211.262 1.00 51.52 C
ATOM 7397 OD1 ASP B 308 222.758 226.365 210.592 1.00 51.52 O
ATOM 7398 OD2 ASP B 308 224.382 226.383 212.071 1.00 51.52 O
ATOM 7399 N PHE B 309 221.747 228.268 213.765 1.00 45.35 N
ATOM 7400 CA PHE B 309 221.625 228.104 215.205 1.00 45.35 C
ATOM 7401 C PHE B 309 222.531 226.987 215.703 1.00 45.35 C
ATOM 7402 O PHE B 309 222.822 226.029 214.982 1.00 45.35 O
ATOM 7403 CB PHE B 309 220.176 227.806 215.583 1.00 45.35 C
ATOM 7404 CG PHE B 309 219.237 228.936 215.297 1.00 45.35 C
ATOM 7405 CD1 PHE B 309 219.152 230.014 216.154 1.00 45.35 C
ATOM 7406 CD2 PHE B 309 218.440 228.919 214.168 1.00 45.35 C
ATOM 7407 CE1 PHE B 309 218.289 231.053 215.890 1.00 45.35 C
ATOM 7408 CE2 PHE B 309 217.575 229.955 213.900 1.00 45.35 C
ATOM 7409 CZ PHE B 309 217.499 231.023 214.761 1.00 45.35 C
ATOM 7410 N GLY B 310 222.973 227.117 216.948 1.00 50.42 N
ATOM 7411 CA GLY B 310 223.894 226.165 217.530 1.00 50.42 C
ATOM 7412 C GLY B 310 225.234 226.809 217.802 1.00 50.42 C
ATOM 7413 O GLY B 310 225.852 226.574 218.843 1.00 50.42 O
ATOM 7414 N ARG B 311 225.688 227.631 216.866 1.00 56.08 N
ATOM 7415 CA ARG B 311 226.922 228.369 217.068 1.00 56.08 C
ATOM 7416 C ARG B 311 226.731 229.410 218.168 1.00 56.08 C
ATOM 7417 O ARG B 311 225.681 230.055 218.236 1.00 56.08 O
ATOM 7418 CB ARG B 311 227.354 229.056 215.775 1.00 56.08 C
ATOM 7419 CG ARG B 311 227.628 228.105 214.624 1.00 56.08 C
ATOM 7420 CD ARG B 311 228.882 227.287 214.873 1.00 56.08 C
ATOM 7421 NE ARG B 311 229.155 226.366 213.775 1.00 56.08 N
ATOM 7422 CZ ARG B 311 229.882 226.675 212.707 1.00 56.08 C
ATOM 7423 NH1 ARG B 311 230.407 227.887 212.589 1.00 56.08 N
ATOM 7424 NH2 ARG B 311 230.081 225.774 211.755 1.00 56.08 N
ATOM 7425 N PRO B 312 227.715 229.582 219.053 1.00 56.22 N
ATOM 7426 CA PRO B 312 227.622 230.679 220.030 1.00 56.22 C
ATOM 7427 C PRO B 312 227.530 232.042 219.371 1.00 56.22 C
ATOM 7428 O PRO B 312 226.840 232.934 219.881 1.00 56.22 O

ATOM 7429 CB PRO B 312 228.909 230.522 220.851 1.00 56.22 C
ATOM 7430 CG PRO B 312 229.293 229.089 220.678 1.00 56.22 C
ATOM 7431 CD PRO B 312 228.898 228.738 219.278 1.00 56.22 C
ATOM 7432 N ASN B 313 228.211 232.224 218.243 1.00 60.69 N
ATOM 7433 CA ASN B 313 228.108 233.439 217.450 1.00 60.69 C
ATOM 7434 C ASN B 313 228.288 233.075 215.985 1.00 60.69 C
ATOM 7435 O ASN B 313 228.989 232.117 215.650 1.00 60.69 O
ATOM 7436 CB ASN B 313 229.143 234.488 217.870 1.00 60.69 C
ATOM 7437 CG ASN B 313 228.813 235.129 219.200 1.00 60.69 C
ATOM 7438 OD1 ASN B 313 227.660 235.459 219.472 1.00 60.69 O
ATOM 7439 ND2 ASN B 313 229.825 235.312 220.037 1.00 60.69 N
ATOM 7440 N SER B 314 227.647 233.847 215.117 1.00 61.86 N
ATOM 7441 CA SER B 314 227.723 233.605 213.683 1.00 61.86 C
ATOM 7442 C SER B 314 227.592 234.947 212.972 1.00 61.86 C
ATOM 7443 O SER B 314 227.722 236.007 213.592 1.00 61.86 O
ATOM 7444 CB SER B 314 226.652 232.591 213.252 1.00 61.86 C
ATOM 7445 OG SER B 314 225.354 233.129 213.418 1.00 61.86 O
ATOM 7446 N ALA B 315 227.337 234.902 211.669 1.00 60.67 N
ATOM 7447 CA ALA B 315 227.179 236.096 210.851 1.00 60.67 C
ATOM 7448 C ALA B 315 225.704 236.275 210.519 1.00 60.67 C
ATOM 7449 O ALA B 315 225.093 235.397 209.901 1.00 60.67 O
ATOM 7450 CB ALA B 315 228.013 235.996 209.574 1.00 60.67 C
ATOM 7451 N LEU B 316 225.137 237.405 210.932 1.00 50.02 N
ATOM 7452 CA LEU B 316 223.732 237.669 210.671 1.00 50.02 C
ATOM 7453 C LEU B 316 223.485 237.808 209.172 1.00 50.02 C
ATOM 7454 O LEU B 316 224.411 237.928 208.367 1.00 50.02 O
ATOM 7455 CB LEU B 316 223.281 238.933 211.400 1.00 50.02 C
ATOM 7456 CG LEU B 316 223.010 238.811 212.901 1.00 50.02 C
ATOM 7457 CD1 LEU B 316 224.305 238.656 213.675 1.00 50.02 C
ATOM 7458 CD2 LEU B 316 222.234 240.016 213.403 1.00 50.02 C
ATOM 7459 N GLU B 317 222.204 237.792 208.803 1.00 49.81 N
ATOM 7460 CA GLU B 317 221.798 237.911 207.403 1.00 49.81 C
ATOM 7461 C GLU B 317 220.457 238.639 207.384 1.00 49.81 C
ATOM 7462 O GLU B 317 219.410 238.023 207.600 1.00 49.81 O

ATOM 7463 CB GLU B 317 221.703 236.544 206.738 1.00 49.81 C
ATOM 7464 CG GLU B 317 221.334 236.598 205.269 1.00 49.81 C
ATOM 7465 CD GLU B 317 222.393 237.285 204.435 1.00 49.81 C
ATOM 7466 OE1 GLU B 317 223.567 237.290 204.859 1.00 49.81 O
ATOM 7467 OE2 GLU B 317 222.055 237.819 203.357 1.00 49.81 O
ATOM 7468 N THR B 318 220.498 239.940 207.116 1.00 45.92 N
ATOM 7469 CA THR B 318 219.317 240.788 207.227 1.00 45.92 C
ATOM 7470 C THR B 318 218.383 240.512 206.055 1.00 45.92 C
ATOM 7471 O THR B 318 218.683 240.875 204.914 1.00 45.92 O
ATOM 7472 CB THR B 318 219.721 242.257 207.255 1.00 45.92 C
ATOM 7473 OG1 THR B 318 220.263 242.625 205.982 1.00 45.92 O
ATOM 7474 CG2 THR B 318 220.779 242.482 208.318 1.00 45.92 C
ATOM 7475 N HIS B 319 217.246 239.885 206.334 1.00 44.42 N
ATOM 7476 CA HIS B 319 216.248 239.635 205.305 1.00 44.42 C
ATOM 7477 C HIS B 319 215.469 240.922 205.040 1.00 44.42 C
ATOM 7478 O HIS B 319 215.806 241.997 205.543 1.00 44.42 O
ATOM 7479 CB HIS B 319 215.335 238.486 205.716 1.00 44.42 C
ATOM 7480 CG HIS B 319 216.031 237.166 205.803 1.00 44.42 C
ATOM 7481 ND1 HIS B 319 215.419 236.033 206.289 1.00 44.42 N
ATOM 7482 CD2 HIS B 319 217.294 236.802 205.478 1.00 44.42 C
ATOM 7483 CE1 HIS B 319 216.271 235.024 206.252 1.00 44.42 C
ATOM 7484 NE2 HIS B 319 217.416 235.465 205.765 1.00 44.42 N
ATOM 7485 N ARG B 320 214.405 240.822 204.246 1.00 48.88 N
ATOM 7486 CA ARG B 320 213.632 241.986 203.831 1.00 48.88 C
ATOM 7487 C ARG B 320 212.310 242.111 204.576 1.00 48.88 C
ATOM 7488 O ARG B 320 212.012 243.169 205.136 1.00 48.88 O
ATOM 7489 CB ARG B 320 213.381 241.928 202.322 1.00 48.88 C
ATOM 7490 CG ARG B 320 212.657 243.134 201.765 1.00 48.88 C
ATOM 7491 CD ARG B 320 212.539 243.035 200.257 1.00 48.88 C
ATOM 7492 NE ARG B 320 213.838 243.152 199.603 1.00 48.88 N
ATOM 7493 CZ ARG B 320 214.044 242.920 198.311 1.00 48.88 C
ATOM 7494 NH1 ARG B 320 213.035 242.554 197.534 1.00 48.88 N
ATOM 7495 NH2 ARG B 320 215.258 243.053 197.795 1.00 48.88 N
ATOM 7496 N LEU B 321 211.506 241.053 204.590 1.00 42.90 N

ATOM 7497 CA LEU B 321 210.256 241.056 205.334 1.00 42.90 C
ATOM 7498 C LEU B 321 210.019 239.669 205.905 1.00 42.90 C
ATOM 7499 O LEU B 321 210.351 238.666 205.270 1.00 42.90 O
ATOM 7500 CB LEU B 321 209.075 241.470 204.452 1.00 42.90 C
ATOM 7501 CG LEU B 321 209.094 242.907 203.935 1.00 42.90 C
ATOM 7502 CD1 LEU B 321 207.915 243.146 203.011 1.00 42.90 C
ATOM 7503 CD2 LEU B 321 209.087 243.892 205.089 1.00 42.90 C
ATOM 7504 N VAL B 322 209.440 239.617 207.105 1.00 37.34 N
ATOM 7505 CA VAL B 322 209.106 238.358 207.757 1.00 37.34 C
ATOM 7506 C VAL B 322 207.817 238.552 208.537 1.00 37.34 C
ATOM 7507 O VAL B 322 207.500 239.652 208.990 1.00 37.34 O
ATOM 7508 CB VAL B 322 210.234 237.866 208.692 1.00 37.34 C
ATOM 7509 CG1 VAL B 322 211.478 237.543 207.894 1.00 37.34 C
ATOM 7510 CG2 VAL B 322 210.541 238.920 209.730 1.00 37.34 C
ATOM 7511 N ALA B 323 207.069 237.467 208.694 1.00 35.79 N
ATOM 7512 CA ALA B 323 205.793 237.494 209.390 1.00 35.79 C
ATOM 7513 C ALA B 323 205.904 236.777 210.730 1.00 35.79 C
ATOM 7514 O ALA B 323 206.886 236.093 211.025 1.00 35.79 O
ATOM 7515 CB ALA B 323 204.692 236.859 208.533 1.00 35.79 C
ATOM 7516 N PHE B 324 204.863 236.945 211.543 1.00 35.80 N
ATOM 7517 CA PHE B 324 204.805 236.353 212.879 1.00 35.80 C
ATOM 7518 C PHE B 324 203.337 236.063 213.174 1.00 35.80 C
ATOM 7519 O PHE B 324 202.608 236.950 213.626 1.00 35.80 O
ATOM 7520 CB PHE B 324 205.405 237.285 213.923 1.00 35.80 C
ATOM 7521 CG PHE B 324 206.900 237.378 213.877 1.00 35.80 C
ATOM 7522 CD1 PHE B 324 207.676 236.449 214.533 1.00 35.80 C
ATOM 7523 CD2 PHE B 324 207.528 238.394 213.186 1.00 35.80 C
ATOM 7524 CE1 PHE B 324 209.048 236.526 214.499 1.00 35.80 C
ATOM 7525 CE2 PHE B 324 208.905 238.474 213.152 1.00 35.80 C
ATOM 7526 CZ PHE B 324 209.664 237.537 213.808 1.00 35.80 C
ATOM 7527 N LEU B 325 202.917 234.824 212.931 1.00 36.68 N
ATOM 7528 CA LEU B 325 201.523 234.425 213.110 1.00 36.68 C
ATOM 7529 C LEU B 325 201.402 233.756 214.475 1.00 36.68 C
ATOM 7530 O LEU B 325 201.413 232.534 214.606 1.00 36.68 O

ATOM 7531 CB LEU B 325 201.082 233.508 211.973 1.00 36.68 C
ATOM 7532 CG LEU B 325 199.595 233.198 211.792 1.00 36.68 C
ATOM 7533 CD1 LEU B 325 199.090 232.176 212.792 1.00 36.68 C
ATOM 7534 CD2 LEU B 325 198.781 234.471 211.882 1.00 36.68 C
ATOM 7535 N GLU B 326 201.283 234.586 215.509 1.00 40.63 N
ATOM 7536 CA GLU B 326 201.250 234.084 216.877 1.00 40.63 C
ATOM 7537 C GLU B 326 199.994 233.268 217.138 1.00 40.63 C
ATOM 7538 O GLU B 326 198.900 233.823 217.277 1.00 40.63 O
ATOM 7539 CB GLU B 326 201.337 235.240 217.871 1.00 40.63 C
ATOM 7540 CG GLU B 326 202.665 235.959 217.859 1.00 40.63 C
ATOM 7541 CD GLU B 326 202.701 237.109 218.837 1.00 40.63 C
ATOM 7542 OE1 GLU B 326 201.644 237.419 219.424 1.00 40.63 O
ATOM 7543 OE2 GLU B 326 203.782 237.702 219.020 1.00 40.63 O
ATOM 7544 N ARG B 327 200.144 231.952 217.211 1.00 37.39 N
ATOM 7545 CA ARG B 327 199.026 231.059 217.457 1.00 37.39 C
ATOM 7546 C ARG B 327 198.870 230.859 218.963 1.00 37.39 C
ATOM 7547 O ARG B 327 199.474 231.568 219.772 1.00 37.39 O
ATOM 7548 CB ARG B 327 199.235 229.747 216.707 1.00 37.39 C
ATOM 7549 CG ARG B 327 199.279 229.928 215.203 1.00 37.39 C
ATOM 7550 CD ARG B 327 199.543 228.629 214.466 1.00 37.39 C
ATOM 7551 NE ARG B 327 198.412 227.713 214.529 1.00 37.39 N
ATOM 7552 CZ ARG B 327 198.444 226.465 214.074 1.00 37.39 C
ATOM 7553 NH1 ARG B 327 199.553 225.991 213.526 1.00 37.39 N
ATOM 7554 NH2 ARG B 327 197.370 225.693 214.164 1.00 37.39 N
ATOM 7555 N ALA B 328 198.049 229.886 219.358 1.00 41.99 N
ATOM 7556 CA ALA B 328 197.788 229.670 220.775 1.00 41.99 C
ATOM 7557 C ALA B 328 198.922 228.930 221.469 1.00 41.99 C
ATOM 7558 O ALA B 328 199.102 229.084 222.682 1.00 41.99 O
ATOM 7559 CB ALA B 328 196.480 228.900 220.955 1.00 41.99 C
ATOM 7560 N ASP B 329 199.692 228.125 220.731 1.00 42.48 N
ATOM 7561 CA ASP B 329 200.751 227.337 221.348 1.00 42.48 C
ATOM 7562 C ASP B 329 202.031 227.298 220.519 1.00 42.48 C
ATOM 7563 O ASP B 329 202.830 226.369 220.679 1.00 42.48 O
ATOM 7564 CB ASP B 329 200.268 225.907 221.613 1.00 42.48 C

ATOM 7565 CG ASP B 329 199.807 225.204 220.352 1.00 42.48 C
ATOM 7566 OD1 ASP B 329 199.767 225.852 219.286 1.00 42.48 O
ATOM 7567 OD2 ASP B 329 199.489 223.999 220.425 1.00 42.48 O
ATOM 7568 N SER B 330 202.252 228.269 219.644 1.00 36.39 N
ATOM 7569 CA SER B 330 203.458 228.296 218.823 1.00 36.39 C
ATOM 7570 C SER B 330 203.510 229.633 218.096 1.00 36.39 C
ATOM 7571 O SER B 330 202.579 230.439 218.169 1.00 36.39 O
ATOM 7572 CB SER B 330 203.487 227.123 217.843 1.00 36.39 C
ATOM 7573 OG SER B 330 202.443 227.234 216.893 1.00 36.39 O
ATOM 7574 N VAL B 331 204.614 229.860 217.389 1.00 29.34 N
ATOM 7575 CA VAL B 331 204.800 231.083 216.620 1.00 29.34 C
ATOM 7576 C VAL B 331 205.418 230.739 215.273 1.00 29.34 C
ATOM 7577 O VAL B 331 206.630 230.522 215.172 1.00 29.34 O
ATOM 7578 CB VAL B 331 205.674 232.090 217.385 1.00 29.34 C
ATOM 7579 CG1 VAL B 331 205.988 233.283 216.512 1.00 29.34 C
ATOM 7580 CG2 VAL B 331 204.976 232.532 218.650 1.00 29.34 C
ATOM 7581 N ILE B 332 204.599 230.690 214.233 1.00 30.68 N
ATOM 7582 CA ILE B 332 205.071 230.415 212.884 1.00 30.68 C
ATOM 7583 C ILE B 332 205.540 231.721 212.268 1.00 30.68 C
ATOM 7584 O ILE B 332 204.973 232.788 212.523 1.00 30.68 O
ATOM 7585 CB ILE B 332 203.971 229.753 212.030 1.00 30.68 C
ATOM 7586 CG1 ILE B 332 203.562 228.418 212.643 1.00 30.68 C
ATOM 7587 CG2 ILE B 332 204.454 229.539 210.615 1.00 30.68 C
ATOM 7588 CD1 ILE B 332 202.331 227.815 212.020 1.00 30.68 C
ATOM 7589 N SER B 333 206.591 231.646 211.454 1.00 32.49 N
ATOM 7590 CA SER B 333 207.178 232.852 210.873 1.00 32.49 C
ATOM 7591 C SER B 333 207.872 232.465 209.573 1.00 32.49 C
ATOM 7592 O SER B 333 208.988 231.942 209.598 1.00 32.49 O
ATOM 7593 CB SER B 333 208.148 233.500 211.846 1.00 32.49 C
ATOM 7594 OG SER B 333 207.473 233.894 213.023 1.00 32.49 O
ATOM 7595 N TRP B 334 207.216 232.732 208.451 1.00 37.87 N
ATOM 7596 CA TRP B 334 207.800 232.461 207.147 1.00 37.87 C
ATOM 7597 C TRP B 334 208.583 233.686 206.680 1.00 37.87 C
ATOM 7598 O TRP B 334 208.821 234.631 207.436 1.00 37.87 O

ATOM 7599 CB TRP B 334 206.712 232.047 206.160 1.00 37.87 C
ATOM 7600 CG TRP B 334 205.675 233.092 205.924 1.00 37.87 C
ATOM 7601 CD1 TRP B 334 205.678 234.039 204.948 1.00 37.87 C
ATOM 7602 CD2 TRP B 334 204.487 233.309 206.690 1.00 37.87 C
ATOM 7603 NE1 TRP B 334 204.560 234.827 205.050 1.00 37.87 N
ATOM 7604 CE2 TRP B 334 203.814 234.400 206.115 1.00 37.87 C
ATOM 7605 CE3 TRP B 334 203.928 232.685 207.806 1.00 37.87 C
ATOM 7606 CZ2 TRP B 334 202.612 234.881 206.617 1.00 37.87 C
ATOM 7607 CZ3 TRP B 334 202.734 233.162 208.301 1.00 37.87 C
ATOM 7608 CH2 TRP B 334 202.089 234.249 207.708 1.00 37.87 C
ATOM 7609 N ASP B 335 208.998 233.677 205.419 1.00 42.84 N
ATOM 7610 CA ASP B 335 209.701 234.794 204.807 1.00 42.84 C
ATOM 7611 C ASP B 335 208.849 235.305 203.657 1.00 42.84 C
ATOM 7612 O ASP B 335 208.449 234.524 202.788 1.00 42.84 O
ATOM 7613 CB ASP B 335 211.088 234.365 204.319 1.00 42.84 C
ATOM 7614 CG ASP B 335 211.949 235.537 203.897 1.00 42.84 C
ATOM 7615 OD1 ASP B 335 211.456 236.681 203.922 1.00 42.84 O
ATOM 7616 OD2 ASP B 335 213.126 235.314 203.547 1.00 42.84 O
ATOM 7617 N ILE B 336 208.554 236.608 203.670 1.00 45.59 N
ATOM 7618 CA ILE B 336 207.613 237.178 202.710 1.00 45.59 C
ATOM 7619 C ILE B 336 208.132 236.952 201.299 1.00 45.59 C
ATOM 7620 O ILE B 336 209.202 237.445 200.924 1.00 45.59 O
ATOM 7621 CB ILE B 336 207.379 238.661 202.995 1.00 45.59 C
ATOM 7622 CG1 ILE B 336 206.763 238.835 204.379 1.00 45.59 C
ATOM 7623 CG2 ILE B 336 206.463 239.250 201.950 1.00 45.59 C
ATOM 7624 CD1 ILE B 336 205.424 238.161 204.519 1.00 45.59 C
ATOM 7625 N GLN B 337 207.372 236.201 200.510 1.00 53.56 N
ATOM 7626 CA GLN B 337 207.847 235.705 199.226 1.00 53.56 C
ATOM 7627 C GLN B 337 207.732 236.787 198.152 1.00 53.56 C
ATOM 7628 O GLN B 337 207.536 237.971 198.434 1.00 53.56 O
ATOM 7629 CB GLN B 337 207.098 234.435 198.843 1.00 53.56 C
ATOM 7630 CG GLN B 337 207.391 233.266 199.757 1.00 53.56 C
ATOM 7631 CD GLN B 337 208.858 232.898 199.765 1.00 53.56 C
ATOM 7632 OE1 GLN B 337 209.549 233.081 200.764 1.00 53.56 O

ATOM 7633 NE2 GLN B 337 209.347 232.390 198.644 1.00 53.56 N
ATOM 7634 N ASN B 338 207.856 236.367 196.896 1.00 80.15 N
ATOM 7635 CA ASN B 338 208.153 237.259 195.778 1.00 80.15 C
ATOM 7636 C ASN B 338 207.597 236.606 194.522 1.00 80.15 C
ATOM 7637 O ASN B 338 207.968 235.474 194.200 1.00 80.15 O
ATOM 7638 CB ASN B 338 209.671 237.470 195.719 1.00 80.15 C
ATOM 7639 CG ASN B 338 210.119 238.639 194.839 1.00 80.15 C
ATOM 7640 OD1 ASN B 338 211.127 239.271 195.159 1.00 80.15 O
ATOM 7641 ND2 ASN B 338 209.428 238.896 193.721 1.00 80.15 N
ATOM 7642 N GLU B 339 206.713 237.313 193.822 1.00 88.29 N
ATOM 7643 CA GLU B 339 205.853 236.675 192.829 1.00 88.29 C
ATOM 7644 C GLU B 339 206.642 236.128 191.643 1.00 88.29 C
ATOM 7645 O GLU B 339 207.656 236.694 191.228 1.00 88.29 O
ATOM 7646 CB GLU B 339 204.793 237.662 192.341 1.00 88.29 C
ATOM 7647 CG GLU B 339 203.772 238.039 193.403 1.00 88.29 C
ATOM 7648 CD GLU B 339 202.699 238.977 192.879 1.00 88.29 C
ATOM 7649 OE1 GLU B 339 202.813 239.423 191.718 1.00 88.29 O
ATOM 7650 OE2 GLU B 339 201.741 239.268 193.625 1.00 88.29 O
ATOM 7651 N LYS B 340 206.156 235.015 191.097 1.00101.23 N
ATOM 7652 CA LYS B 340 206.799 234.340 189.980 1.00101.23 C
ATOM 7653 C LYS B 340 206.407 235.001 188.655 1.00101.23 C
ATOM 7654 O LYS B 340 205.657 235.979 188.612 1.00101.23 O
ATOM 7655 CB LYS B 340 206.429 232.860 189.986 1.00101.23 C
ATOM 7656 CG LYS B 340 204.943 232.603 189.810 1.00101.23 C
ATOM 7657 CD LYS B 340 204.637 231.118 189.775 1.00101.23 C
ATOM 7658 CE LYS B 340 204.784 230.491 191.147 1.00101.23 C
ATOM 7659 NZ LYS B 340 204.350 229.068 191.138 1.00101.23 N
ATOM 7660 N ASN B 341 206.939 234.461 187.555 1.00128.34 N
ATOM 7661 CA ASN B 341 206.637 235.019 186.236 1.00128.34 C
ATOM 7662 C ASN B 341 205.324 234.488 185.668 1.00128.34 C
ATOM 7663 O ASN B 341 204.343 235.226 185.534 1.00128.34 O
ATOM 7664 CB ASN B 341 207.771 234.707 185.251 1.00128.34 C
ATOM 7665 CG ASN B 341 209.027 235.518 185.498 1.00128.34 C
ATOM 7666 OD1 ASN B 341 208.971 236.653 185.971 1.00128.34 O

ATOM 7667 ND2 ASN B 341 210.173 234.938 185.120 1.00128.34 N
ATOM 7668 N VAL B 342 205.293 233.196 185.342 1.00121.76 N
ATOM 7669 CA VAL B 342 204.253 232.642 184.482 1.00121.76 C
ATOM 7670 C VAL B 342 204.297 231.119 184.531 1.00121.76 C
ATOM 7671 O VAL B 342 205.339 230.527 184.829 1.00121.76 O
ATOM 7672 CB VAL B 342 204.415 233.158 183.040 1.00121.76 C
ATOM 7673 CG1 VAL B 342 205.694 232.613 182.424 1.00121.76 C
ATOM 7674 CG2 VAL B 342 203.203 232.802 182.196 1.00121.76 C
ATOM 7675 N THR B 343 203.167 230.474 184.233 1.00124.81 N
ATOM 7676 CA THR B 343 203.071 229.022 184.231 1.00124.81 C
ATOM 7677 C THR B 343 202.358 228.545 182.973 1.00124.81 C
ATOM 7678 O THR B 343 201.328 229.102 182.581 1.00124.81 O
ATOM 7679 CB THR B 343 202.328 228.515 185.469 1.00124.81 C
ATOM 7680 OG1 THR B 343 203.019 228.945 186.649 1.00124.81 O
ATOM 7681 CG2 THR B 343 202.254 226.997 185.456 1.00124.81 C
ATOM 7682 N CYS B 344 202.909 227.507 182.350 1.00124.29 N
ATOM 7683 CA CYS B 344 202.366 226.940 181.125 1.00124.29 C
ATOM 7684 C CYS B 344 201.407 225.793 181.444 1.00124.29 C
ATOM 7685 O CYS B 344 200.979 225.603 182.585 1.00124.29 O
ATOM 7686 CB CYS B 344 203.496 226.479 180.207 1.00124.29 C
ATOM 7687 SG CYS B 344 204.481 227.806 179.486 1.00124.29 S
ATOM 7688 N ALA B 345 201.053 225.019 180.419 1.00116.87 N
ATOM 7689 CA ALA B 345 200.124 223.902 180.541 1.00116.87 C
ATOM 7690 C ALA B 345 200.635 222.691 179.775 1.00116.87 C
ATOM 7691 O ALA B 345 199.855 221.940 179.180 1.00116.87 O
ATOM 7692 CB ALA B 345 198.735 224.288 180.035 1.00116.87 C
ATOM 7693 N LEU B 346 201.946 222.468 179.787 1.00113.74 N
ATOM 7694 CA LEU B 346 202.563 221.457 178.941 1.00113.74 C
ATOM 7695 C LEU B 346 203.199 220.363 179.786 1.00113.74 C
ATOM 7696 O LEU B 346 203.823 220.639 180.814 1.00113.74 O
ATOM 7697 CB LEU B 346 203.624 222.074 178.023 1.00113.74 C
ATOM 7698 CG LEU B 346 204.981 222.393 178.654 1.00113.74 C
ATOM 7699 CD1 LEU B 346 206.014 222.674 177.575 1.00113.74 C
ATOM 7700 CD2 LEU B 346 204.885 223.556 179.625 1.00113.74 C

ATOM 7701 N THR B 347 203.027 219.127 179.349 1.00115.05 N
ATOM 7702 CA THR B 347 203.711 217.970 179.916 1.00115.05 C
ATOM 7703 C THR B 347 204.411 217.125 178.862 1.00115.05 C
ATOM 7704 O THR B 347 205.513 216.631 179.115 1.00115.05 O
ATOM 7705 CB THR B 347 202.715 217.108 180.698 1.00115.05 C
ATOM 7706 OG1 THR B 347 201.619 216.759 179.845 1.00115.05 O
ATOM 7707 CG2 THR B 347 202.197 217.860 181.910 1.00115.05 C
ATOM 7708 N PHE B 348 203.802 216.957 177.686 1.00113.10 N
ATOM 7709 CA PHE B 348 204.398 216.266 176.543 1.00113.10 C
ATOM 7710 C PHE B 348 204.821 214.843 176.921 1.00113.10 C
ATOM 7711 O PHE B 348 205.995 214.474 176.895 1.00113.10 O
ATOM 7712 CB PHE B 348 205.577 217.070 175.986 1.00113.10 C
ATOM 7713 CG PHE B 348 205.170 218.361 175.337 1.00113.10 C
ATOM 7714 CD1 PHE B 348 203.854 218.576 174.962 1.00113.10 C
ATOM 7715 CD2 PHE B 348 206.095 219.364 175.117 1.00113.10 C
ATOM 7716 CE1 PHE B 348 203.473 219.761 174.370 1.00113.10 C
ATOM 7717 CE2 PHE B 348 205.719 220.554 174.526 1.00113.10 C
ATOM 7718 CZ PHE B 348 204.406 220.752 174.152 1.00113.10 C
ATOM 7719 N TRP B 349 203.814 214.047 177.272 1.00116.30 N
ATOM 7720 CA TRP B 349 204.031 212.693 177.764 1.00116.30 C
ATOM 7721 C TRP B 349 203.553 211.640 176.770 1.00116.30 C
ATOM 7722 O TRP B 349 203.268 210.506 177.153 1.00116.30 O
ATOM 7723 CB TRP B 349 203.347 212.502 179.118 1.00116.30 C
ATOM 7724 CG TRP B 349 201.862 212.701 179.074 1.00116.30 C
ATOM 7725 CD1 TRP B 349 201.199 213.887 179.151 1.00116.30 C
ATOM 7726 CD2 TRP B 349 200.854 211.685 178.980 1.00116.30 C
ATOM 7727 NE1 TRP B 349 199.844 213.680 179.091 1.00116.30 N
ATOM 7728 CE2 TRP B 349 199.606 212.336 178.989 1.00116.30 C
ATOM 7729 CE3 TRP B 349 200.886 210.292 178.886 1.00116.30 C
ATOM 7730 CZ2 TRP B 349 198.402 211.641 178.903 1.00116.30 C
ATOM 7731 CZ3 TRP B 349 199.691 209.604 178.797 1.00116.30 C
ATOM 7732 CH2 TRP B 349 198.466 210.279 178.808 1.00116.30 C
ATOM 7733 N GLU B 350 203.485 211.981 175.486 1.00118.26 N
ATOM 7734 CA GLU B 350 202.992 210.983 174.550 1.00118.26 C

ATOM 7735 C GLU B 350 203.325 211.383 173.122 1.00118.26 C
ATOM 7736 O GLU B 350 203.312 212.567 172.772 1.00118.26 O
ATOM 7737 CB GLU B 350 201.481 210.781 174.703 1.00118.26 C
ATOM 7738 CG GLU B 350 200.936 209.714 173.788 1.00118.26 C
ATOM 7739 CD GLU B 350 201.582 208.373 174.049 1.00118.26 C
ATOM 7740 OE1 GLU B 350 202.047 208.153 175.187 1.00118.26 O
ATOM 7741 OE2 GLU B 350 201.635 207.543 173.118 1.00118.26 O
ATOM 7742 N ALA B 351 203.623 210.372 172.305 1.00119.52 N
ATOM 7743 CA ALA B 351 203.812 210.536 170.864 1.00119.52 C
ATOM 7744 C ALA B 351 203.176 209.325 170.187 1.00119.52 C
ATOM 7745 O ALA B 351 203.826 208.290 170.015 1.00119.52 O
ATOM 7746 CB ALA B 351 205.286 210.667 170.503 1.00119.52 C
ATOM 7747 N SER B 352 201.908 209.458 169.809 1.00114.30 N
ATOM 7748 CA SER B 352 201.153 208.377 169.186 1.00114.30 C
ATOM 7749 C SER B 352 201.164 208.577 167.676 1.00114.30 C
ATOM 7750 O SER B 352 200.504 209.484 167.158 1.00114.30 O
ATOM 7751 CB SER B 352 199.725 208.333 169.722 1.00114.30 C
ATOM 7752 OG SER B 352 199.711 208.021 171.103 1.00114.30 O
ATOM 7753 N GLU B 353 201.913 207.730 166.972 1.00118.37 N
ATOM 7754 CA GLU B 353 201.940 207.737 165.518 1.00118.37 C
ATOM 7755 C GLU B 353 200.930 206.769 164.911 1.00118.37 C
ATOM 7756 O GLU B 353 201.025 206.452 163.721 1.00118.37 O
ATOM 7757 CB GLU B 353 203.348 207.416 165.011 1.00118.37 C
ATOM 7758 CG GLU B 353 203.806 205.994 165.283 1.00118.37 C
ATOM 7759 CD GLU B 353 204.428 205.836 166.655 1.00118.37 C
ATOM 7760 OE1 GLU B 353 204.233 206.731 167.504 1.00118.37 O
ATOM 7761 OE2 GLU B 353 205.113 204.818 166.884 1.00118.37 O
ATOM 7762 N ARG B 354 199.966 206.298 165.703 1.00112.09 N
ATOM 7763 CA ARG B 354 198.945 205.377 165.206 1.00112.09 C
ATOM 7764 C ARG B 354 197.706 205.546 166.080 1.00112.09 C
ATOM 7765 O ARG B 354 197.655 205.020 167.196 1.00112.09 O
ATOM 7766 CB ARG B 354 199.448 203.941 165.219 1.00112.09 C
ATOM 7767 CG ARG B 354 198.418 202.925 164.753 1.00112.09 C
ATOM 7768 CD ARG B 354 198.078 203.118 163.284 1.00112.09 C

ATOM 7769 NE ARG B 354 199.215 202.821 162.420 1.00112.09 N
ATOM 7770 CZ ARG B 354 199.280 203.145 161.133 1.00112.09 C
ATOM 7771 NH1 ARG B 354 198.271 203.782 160.556 1.00112.09 N
ATOM 7772 NH2 ARG B 354 200.355 202.833 160.423 1.00112.09 N
ATOM 7773 N THR B 355 196.720 206.279 165.569 1.00102.38 N
ATOM 7774 CA THR B 355 195.453 206.483 166.254 1.00102.38 C
ATOM 7775 C THR B 355 194.333 206.426 165.223 1.00102.38 C
ATOM 7776 O THR B 355 194.561 206.142 164.044 1.00102.38 O
ATOM 7777 CB THR B 355 195.430 207.812 167.015 1.00102.38 C
ATOM 7778 OG1 THR B 355 195.600 208.894 166.093 1.00102.38 O
ATOM 7779 CG2 THR B 355 196.541 207.855 168.056 1.00102.38 C
ATOM 7780 N ILE B 356 193.111 206.698 165.674 1.00 95.23 N
ATOM 7781 CA ILE B 356 191.927 206.657 164.823 1.00 95.23 C
ATOM 7782 C ILE B 356 191.025 207.817 165.212 1.00 95.23 C
ATOM 7783 O ILE B 356 190.652 207.951 166.383 1.00 95.23 O
ATOM 7784 CB ILE B 356 191.165 205.327 164.942 1.00 95.23 C
ATOM 7785 CG1 ILE B 356 191.991 204.178 164.361 1.00 95.23 C
ATOM 7786 CG2 ILE B 356 189.814 205.432 164.266 1.00 95.23 C
ATOM 7787 CD1 ILE B 356 192.883 203.494 165.366 1.00 95.23 C
ATOM 7788 N ARG B 357 190.670 208.651 164.239 1.00 98.49 N
ATOM 7789 CA ARG B 357 189.914 209.877 164.485 1.00 98.49 C
ATOM 7790 C ARG B 357 188.482 209.656 164.006 1.00 98.49 C
ATOM 7791 O ARG B 357 188.130 209.981 162.872 1.00 98.49 O
ATOM 7792 CB ARG B 357 190.574 211.050 163.773 1.00 98.49 C
ATOM 7793 CG ARG B 357 190.013 212.410 164.116 1.00 98.49 C
ATOM 7794 CD ARG B 357 188.859 212.809 163.224 1.00 98.49 C
ATOM 7795 NE ARG B 357 188.528 214.216 163.399 1.00 98.49 N
ATOM 7796 CZ ARG B 357 188.895 215.183 162.564 1.00 98.49 C
ATOM 7797 NH1 ARG B 357 188.564 216.442 162.816 1.00 98.49 N
ATOM 7798 NH2 ARG B 357 189.550 214.882 161.450 1.00 98.49 N
ATOM 7799 N SER B 358 187.651 209.094 164.877 1.00102.28 N
ATOM 7800 CA SER B 358 186.259 208.864 164.529 1.00102.28 C
ATOM 7801 C SER B 358 185.437 210.137 164.722 1.00102.28 C
ATOM 7802 O SER B 358 185.929 211.165 165.192 1.00102.28 O

ATOM 7803 CB SER B 358 185.680 207.722 165.360 1.00102.28 C
ATOM 7804 OG SER B 358 185.624 208.071 166.729 1.00102.28 O
ATOM 7805 N GLU B 359 184.156 210.055 164.353 1.00106.74 N
ATOM 7806 CA GLU B 359 183.267 211.215 164.426 1.00106.74 C
ATOM 7807 C GLU B 359 181.832 210.689 164.461 1.00106.74 C
ATOM 7808 O GLU B 359 181.333 210.203 163.442 1.00106.74 O
ATOM 7809 CB GLU B 359 183.495 212.142 163.243 1.00106.74 C
ATOM 7810 CG GLU B 359 182.787 213.482 163.332 1.00106.74 C
ATOM 7811 CD GLU B 359 181.363 213.435 162.819 1.00106.74 C
ATOM 7812 OE1 GLU B 359 181.075 212.595 161.941 1.00106.74 O
ATOM 7813 OE2 GLU B 359 180.533 214.238 163.293 1.00106.74 O
ATOM 7814 N ALA B 360 181.181 210.782 165.623 1.00112.26 N
ATOM 7815 CA ALA B 360 179.817 210.262 165.704 1.00112.26 C
ATOM 7816 C ALA B 360 178.785 211.284 165.231 1.00112.26 C
ATOM 7817 O ALA B 360 178.242 211.166 164.129 1.00112.26 O
ATOM 7818 CB ALA B 360 179.520 209.813 167.139 1.00112.26 C
ATOM 7819 N GLU B 361 178.505 212.304 166.045 1.00112.92 N
ATOM 7820 CA GLU B 361 177.668 213.408 165.586 1.00112.92 C
ATOM 7821 C GLU B 361 178.275 214.772 165.883 1.00112.92 C
ATOM 7822 O GLU B 361 178.389 215.625 164.996 1.00112.92 O
ATOM 7823 CB GLU B 361 176.273 213.322 166.208 1.00112.92 C
ATOM 7824 CG GLU B 361 175.330 214.421 165.734 1.00112.92 C
ATOM 7825 CD GLU B 361 175.063 214.355 164.241 1.00112.92 C
ATOM 7826 OE1 GLU B 361 175.185 213.256 163.662 1.00112.92 O
ATOM 7827 OE2 GLU B 361 174.734 215.402 163.646 1.00112.92 O
ATOM 7828 N ASP B 362 178.668 214.977 167.142 1.00111.78 N
ATOM 7829 CA ASP B 362 178.959 216.310 167.652 1.00111.78 C
ATOM 7830 C ASP B 362 180.198 216.312 168.539 1.00111.78 C
ATOM 7831 O ASP B 362 180.438 217.298 169.248 1.00111.78 O
ATOM 7832 CB ASP B 362 177.746 216.844 168.434 1.00111.78 C
ATOM 7833 CG ASP B 362 177.779 218.349 168.628 1.00111.78 C
ATOM 7834 OD1 ASP B 362 178.708 219.000 168.110 1.00111.78 O
ATOM 7835 OD2 ASP B 362 176.879 218.880 169.311 1.00111.78 O
ATOM 7836 N SER B 363 180.982 215.239 168.533 1.00107.62 N

ATOM 7837 CA SER B 363 182.163 215.146 169.384 1.00107.62 C
ATOM 7838 C SER B 363 183.065 214.064 168.817 1.00107.62 C
ATOM 7839 O SER B 363 182.674 212.893 168.780 1.00107.62 O
ATOM 7840 CB SER B 363 181.766 214.830 170.823 1.00107.62 C
ATOM 7841 OG SER B 363 181.176 213.546 170.920 1.00107.62 O
ATOM 7842 N TYR B 364 184.264 214.447 168.377 1.00102.19 N
ATOM 7843 CA TYR B 364 185.193 213.492 167.787 1.00102.19 C
ATOM 7844 C TYR B 364 185.676 212.499 168.834 1.00102.19 C
ATOM 7845 O TYR B 364 185.363 212.637 170.020 1.00102.19 O
ATOM 7846 CB TYR B 364 186.391 214.209 167.161 1.00102.19 C
ATOM 7847 CG TYR B 364 186.045 215.127 166.012 1.00102.19 C
ATOM 7848 CD1 TYR B 364 185.755 214.620 164.755 1.00102.19 C
ATOM 7849 CD2 TYR B 364 186.034 216.504 166.180 1.00102.19 C
ATOM 7850 CE1 TYR B 364 185.450 215.459 163.699 1.00102.19 C
ATOM 7851 CE2 TYR B 364 185.728 217.351 165.134 1.00102.19 C
ATOM 7852 CZ TYR B 364 185.436 216.823 163.895 1.00102.19 C
ATOM 7853 OH TYR B 364 185.130 217.660 162.848 1.00102.19 O
ATOM 7854 N HIS B 365 186.446 211.502 168.407 1.00101.81 N
ATOM 7855 CA HIS B 365 187.021 210.520 169.313 1.00101.81 C
ATOM 7856 C HIS B 365 188.427 210.181 168.850 1.00101.81 C
ATOM 7857 O HIS B 365 188.727 210.201 167.654 1.00101.81 O
ATOM 7858 CB HIS B 365 186.180 209.242 169.383 1.00101.81 C
ATOM 7859 CG HIS B 365 184.811 209.448 169.947 1.00101.81 C
ATOM 7860 ND1 HIS B 365 184.576 209.601 171.296 1.00101.81 N
ATOM 7861 CD2 HIS B 365 183.602 209.528 169.343 1.00101.81 C
ATOM 7862 CE1 HIS B 365 183.281 209.762 171.499 1.00101.81 C
ATOM 7863 NE2 HIS B 365 182.667 209.723 170.330 1.00101.81 N
ATOM 7864 N PHE B 366 189.287 209.856 169.813 1.00 96.03 N
ATOM 7865 CA PHE B 366 190.687 209.532 169.549 1.00 96.03 C
ATOM 7866 C PHE B 366 190.960 208.172 170.180 1.00 96.03 C
ATOM 7867 O PHE B 366 191.419 208.088 171.321 1.00 96.03 O
ATOM 7868 CB PHE B 366 191.602 210.612 170.099 1.00 96.03 C
ATOM 7869 CG PHE B 366 191.421 211.944 169.439 1.00 96.03 C
ATOM 7870 CD1 PHE B 366 192.039 212.225 168.236 1.00 96.03 C

ATOM 7871 CD2 PHE B 366 190.618 212.912 170.015 1.00 96.03 C
ATOM 7872 CE1 PHE B 366 191.869 213.449 167.626 1.00 96.03 C
ATOM 7873 CE2 PHE B 366 190.445 214.138 169.408 1.00 96.03 C
ATOM 7874 CZ PHE B 366 191.071 214.406 168.213 1.00 96.03 C
ATOM 7875 N SER B 367 190.678 207.108 169.430 1.00 96.38 N
ATOM 7876 CA SER B 367 190.845 205.742 169.923 1.00 96.38 C
ATOM 7877 C SER B 367 192.298 205.326 169.724 1.00 96.38 C
ATOM 7878 O SER B 367 192.656 204.612 168.786 1.00 96.38 O
ATOM 7879 CB SER B 367 189.884 204.797 169.215 1.00 96.38 C
ATOM 7880 OG SER B 367 190.196 204.699 167.837 1.00 96.38 O
ATOM 7881 N SER B 368 193.150 205.796 170.632 1.00107.48 N
ATOM 7882 CA SER B 368 194.561 205.443 170.584 1.00107.48 C
ATOM 7883 C SER B 368 194.739 203.938 170.746 1.00107.48 C
ATOM 7884 O SER B 368 193.980 203.270 171.454 1.00107.48 O
ATOM 7885 CB SER B 368 195.334 206.189 171.672 1.00107.48 C
ATOM 7886 OG SER B 368 194.909 205.790 172.964 1.00107.48 O
ATOM 7887 N ALA B 369 195.759 203.403 170.078 1.00108.68 N
ATOM 7888 CA ALA B 369 196.019 201.970 170.057 1.00108.68 C
ATOM 7889 C ALA B 369 197.263 201.586 170.840 1.00108.68 C
ATOM 7890 O ALA B 369 197.199 200.720 171.718 1.00108.68 O
ATOM 7891 CB ALA B 369 196.148 201.482 168.607 1.00108.68 C
ATOM 7892 N LYS B 370 198.402 202.212 170.541 1.00116.17 N
ATOM 7893 CA LYS B 370 199.623 201.908 171.278 1.00116.17 C
ATOM 7894 C LYS B 370 199.503 202.328 172.737 1.00116.17 C
ATOM 7895 O LYS B 370 200.169 201.755 173.607 1.00116.17 O
ATOM 7896 CB LYS B 370 200.813 202.587 170.602 1.00116.17 C
ATOM 7897 CG LYS B 370 201.088 202.038 169.209 1.00116.17 C
ATOM 7898 CD LYS B 370 202.264 202.720 168.532 1.00116.17 C
ATOM 7899 CE LYS B 370 202.467 202.166 167.129 1.00116.17 C
ATOM 7900 NZ LYS B 370 203.588 202.825 166.408 1.00116.17 N
ATOM 7901 N MET B 371 198.669 203.324 173.019 1.00116.26 N
ATOM 7902 CA MET B 371 198.279 203.672 174.375 1.00116.26 C
ATOM 7903 C MET B 371 196.970 202.966 174.724 1.00116.26 C
ATOM 7904 O MET B 371 196.506 202.073 174.011 1.00116.26 O

ATOM 7905 CB MET B 371 198.152 205.186 174.521 1.00116.26 C
ATOM 7906 CG MET B 371 199.461 205.927 174.414 1.00116.26 C
ATOM 7907 SD MET B 371 200.611 205.438 175.711 1.00116.26 S
ATOM 7908 CE MET B 371 199.794 206.117 177.154 1.00116.26 C
ATOM 7909 N THR B 372 196.361 203.369 175.834 1.00109.56 N
ATOM 7910 CA THR B 372 195.040 202.906 176.242 1.00109.56 C
ATOM 7911 C THR B 372 194.146 204.100 176.542 1.00109.56 C
ATOM 7912 O THR B 372 193.440 204.149 177.551 1.00109.56 O
ATOM 7913 CB THR B 372 195.133 201.983 177.451 1.00109.56 C
ATOM 7914 OG1 THR B 372 195.712 202.694 178.552 1.00109.56 O
ATOM 7915 CG2 THR B 372 195.993 200.773 177.127 1.00109.56 C
ATOM 7916 N ALA B 373 194.171 205.088 175.653 1.00102.47 N
ATOM 7917 CA ALA B 373 193.483 206.353 175.860 1.00102.47 C
ATOM 7918 C ALA B 373 192.288 206.479 174.926 1.00102.47 C
ATOM 7919 O ALA B 373 192.336 206.041 173.773 1.00102.47 O
ATOM 7920 CB ALA B 373 194.434 207.533 175.644 1.00102.47 C
ATOM 7921 N THR B 374 191.219 207.084 175.437 1.00 97.23 N
ATOM 7922 CA THR B 374 190.031 207.403 174.653 1.00 97.23 C
ATOM 7923 C THR B 374 189.554 208.781 175.084 1.00 97.23 C
ATOM 7924 O THR B 374 189.210 208.981 176.252 1.00 97.23 O
ATOM 7925 CB THR B 374 188.929 206.357 174.850 1.00 97.23 C
ATOM 7926 OG1 THR B 374 188.553 206.309 176.231 1.00 97.23 O
ATOM 7927 CG2 THR B 374 189.415 204.983 174.415 1.00 97.23 C
ATOM 7928 N PHE B 375 189.534 209.723 174.148 1.00 95.93 N
ATOM 7929 CA PHE B 375 189.366 211.138 174.450 1.00 95.93 C
ATOM 7930 C PHE B 375 188.054 211.644 173.852 1.00 95.93 C
ATOM 7931 O PHE B 375 187.229 210.870 173.360 1.00 95.93 O
ATOM 7932 CB PHE B 375 190.565 211.934 173.929 1.00 95.93 C
ATOM 7933 CG PHE B 375 191.858 211.624 174.632 1.00 95.93 C
ATOM 7934 CD1 PHE B 375 191.865 210.988 175.862 1.00 95.93 C
ATOM 7935 CD2 PHE B 375 193.069 211.959 174.054 1.00 95.93 C
ATOM 7936 CE1 PHE B 375 193.053 210.699 176.502 1.00 95.93 C
ATOM 7937 CE2 PHE B 375 194.259 211.673 174.691 1.00 95.93 C
ATOM 7938 CZ PHE B 375 194.251 211.042 175.916 1.00 95.93 C

ATOM 7939 N LEU B 376 187.859 212.962 173.907 1.00100.30 N
ATOM 7940 CA LEU B 376 186.638 213.563 173.386 1.00100.30 C
ATOM 7941 C LEU B 376 186.773 215.076 173.254 1.00100.30 C
ATOM 7942 O LEU B 376 187.195 215.751 174.198 1.00100.30 O
ATOM 7943 CB LEU B 376 185.456 213.216 174.291 1.00100.30 C
ATOM 7944 CG LEU B 376 184.073 213.648 173.809 1.00100.30 C
ATOM 7945 CD1 LEU B 376 183.717 212.900 172.543 1.00100.30 C
ATOM 7946 CD2 LEU B 376 183.029 213.416 174.887 1.00100.30 C
ATOM 7947 N SER B 377 186.416 215.616 172.093 1.00103.33 N
ATOM 7948 CA SER B 377 186.402 217.052 171.841 1.00103.33 C
ATOM 7949 C SER B 377 185.008 217.465 171.373 1.00103.33 C
ATOM 7950 O SER B 377 184.099 216.640 171.265 1.00103.33 O
ATOM 7951 CB SER B 377 187.470 217.442 170.817 1.00103.33 C
ATOM 7952 OG SER B 377 187.449 218.836 170.571 1.00103.33 O
ATOM 7953 N LYS B 378 184.838 218.754 171.087 1.00104.03 N
ATOM 7954 CA LYS B 378 183.511 219.331 170.879 1.00104.03 C
ATOM 7955 C LYS B 378 183.436 220.100 169.562 1.00104.03 C
ATOM 7956 O LYS B 378 182.943 221.227 169.500 1.00104.03 O
ATOM 7957 CB LYS B 378 183.124 220.236 172.046 1.00104.03 C
ATOM 7958 CG LYS B 378 182.340 219.542 173.156 1.00104.03 C
ATOM 7959 CD LYS B 378 183.153 218.446 173.824 1.00104.03 C
ATOM 7960 CE LYS B 378 182.321 217.664 174.824 1.00104.03 C
ATOM 7961 NZ LYS B 378 181.822 218.535 175.922 1.00104.03 N
ATOM 7962 N LYS B 379 183.937 219.497 168.485 1.00108.21 N
ATOM 7963 CA LYS B 379 183.744 219.937 167.103 1.00108.21 C
ATOM 7964 C LYS B 379 184.450 221.239 166.749 1.00108.21 C
ATOM 7965 O LYS B 379 184.425 221.631 165.576 1.00108.21 O
ATOM 7966 CB LYS B 379 182.261 220.128 166.753 1.00108.21 C
ATOM 7967 CG LYS B 379 181.399 218.907 166.943 1.00108.21 C
ATOM 7968 CD LYS B 379 181.684 217.843 165.911 1.00108.21 C
ATOM 7969 CE LYS B 379 182.691 216.846 166.442 1.00108.21 C
ATOM 7970 NZ LYS B 379 182.855 215.702 165.515 1.00108.21 N
ATOM 7971 N GLN B 380 185.077 221.923 167.702 1.00100.83 N
ATOM 7972 CA GLN B 380 185.594 223.267 167.475 1.00100.83 C

ATOM 7973 C GLN B 380 187.068 223.298 167.837 1.00100.83 C
ATOM 7974 O GLN B 380 187.437 222.993 168.975 1.00100.83 O
ATOM 7975 CB GLN B 380 184.811 224.298 168.292 1.00100.83 C
ATOM 7976 CG GLN B 380 183.360 224.440 167.855 1.00100.83 C
ATOM 7977 CD GLN B 380 182.578 225.418 168.710 1.00100.83 C
ATOM 7978 OE1 GLN B 380 183.090 225.950 169.694 1.00100.83 O
ATOM 7979 NE2 GLN B 380 181.328 225.658 168.335 1.00100.83 N
ATOM 7980 N GLU B 381 187.904 223.663 166.869 1.00103.85 N
ATOM 7981 CA GLU B 381 189.334 223.745 167.109 1.00103.85 C
ATOM 7982 C GLU B 381 189.638 224.833 168.133 1.00103.85 C
ATOM 7983 O GLU B 381 188.802 225.683 168.446 1.00103.85 O
ATOM 7984 CB GLU B 381 190.081 224.030 165.808 1.00103.85 C
ATOM 7985 CG GLU B 381 190.015 222.902 164.797 1.00103.85 C
ATOM 7986 CD GLU B 381 190.735 223.237 163.508 1.00103.85 C
ATOM 7987 OE1 GLU B 381 191.180 224.395 163.362 1.00103.85 O
ATOM 7988 OE2 GLU B 381 190.855 222.344 162.643 1.00103.85 O
ATOM 7989 N VAL B 382 190.858 224.801 168.652 1.00 97.86 N
ATOM 7990 CA VAL B 382 191.294 225.763 169.654 1.00 97.86 C
ATOM 7991 C VAL B 382 191.905 226.965 168.949 1.00 97.86 C
ATOM 7992 O VAL B 382 192.750 226.814 168.059 1.00 97.86 O
ATOM 7993 CB VAL B 382 192.291 225.125 170.635 1.00 97.86 C
ATOM 7994 CG1 VAL B 382 192.817 226.166 171.602 1.00 97.86 C
ATOM 7995 CG2 VAL B 382 191.634 223.976 171.382 1.00 97.86 C
ATOM 7996 N ASN B 383 191.453 228.156 169.333 1.00102.57 N
ATOM 7997 CA ASN B 383 191.956 229.406 168.776 1.00102.57 C
ATOM 7998 C ASN B 383 193.467 229.491 168.955 1.00102.57 C
ATOM 7999 O ASN B 383 193.975 229.366 170.074 1.00102.57 O
ATOM 8000 CB ASN B 383 191.274 230.572 169.483 1.00102.57 C
ATOM 8001 CG ASN B 383 191.139 231.806 168.615 1.00102.57 C
ATOM 8002 OD1 ASN B 383 190.387 232.708 168.979 1.00102.57 O
ATOM 8003 ND2 ASN B 383 191.848 231.843 167.466 1.00102.57 N
ATOM 8004 N MET B 384 194.190 229.705 167.858 1.00102.17 N
ATOM 8005 CA MET B 384 195.648 229.729 167.899 1.00102.17 C
ATOM 8006 C MET B 384 196.220 231.087 168.282 1.00102.17 C

ATOM 8007 O MET B 384 197.429 231.292 168.126 1.00102.17 O
ATOM 8008 CB MET B 384 196.222 229.297 166.550 1.00102.17 C
ATOM 8009 CG MET B 384 195.951 227.851 166.210 1.00102.17 C
ATOM 8010 SD MET B 384 196.661 226.724 167.423 1.00102.17 S
ATOM 8011 CE MET B 384 198.411 226.953 167.118 1.00102.17 C
ATOM 8012 N SER B 385 195.397 232.013 168.767 1.00109.91 N
ATOM 8013 CA SER B 385 195.852 233.330 169.203 1.00109.91 C
ATOM 8014 C SER B 385 195.875 233.436 170.725 1.00109.91 C
ATOM 8015 O SER B 385 195.584 234.489 171.295 1.00109.91 O
ATOM 8016 CB SER B 385 194.980 234.433 168.607 1.00109.91 C
ATOM 8017 OG SER B 385 193.653 234.375 169.103 1.00109.91 O
ATOM 8018 N ASP B 386 196.224 232.343 171.398 1.00116.16 N
ATOM 8019 CA ASP B 386 196.296 232.299 172.852 1.00116.16 C
ATOM 8020 C ASP B 386 197.756 232.344 173.283 1.00116.16 C
ATOM 8021 O ASP B 386 198.584 231.585 172.768 1.00116.16 O
ATOM 8022 CB ASP B 386 195.613 231.043 173.396 1.00116.16 C
ATOM 8023 CG ASP B 386 195.511 231.043 174.907 1.00116.16 C
ATOM 8024 OD1 ASP B 386 194.684 231.809 175.444 1.00116.16 O
ATOM 8025 OD2 ASP B 386 196.249 230.276 175.557 1.00116.16 O
ATOM 8026 N SER B 387 198.065 233.236 174.228 1.00116.94 N
ATOM 8027 CA SER B 387 199.444 233.419 174.664 1.00116.94 C
ATOM 8028 C SER B 387 199.992 232.199 175.392 1.00116.94 C
ATOM 8029 O SER B 387 201.214 232.022 175.439 1.00116.94 O
ATOM 8030 CB SER B 387 199.552 234.652 175.563 1.00116.94 C
ATOM 8031 OG SER B 387 200.880 234.838 176.021 1.00116.94 O
ATOM 8032 N ALA B 388 199.124 231.356 175.954 1.00118.41 N
ATOM 8033 CA ALA B 388 199.580 230.159 176.650 1.00118.41 C
ATOM 8034 C ALA B 388 200.141 229.103 175.707 1.00118.41 C
ATOM 8035 O ALA B 388 200.712 228.116 176.183 1.00118.41 O
ATOM 8036 CB ALA B 388 198.438 229.561 177.472 1.00118.41 C
ATOM 8037 N LEU B 389 199.992 229.281 174.396 1.00118.27 N
ATOM 8038 CA LEU B 389 200.508 228.333 173.420 1.00118.27 C
ATOM 8039 C LEU B 389 201.924 228.656 172.964 1.00118.27 C
ATOM 8040 O LEU B 389 202.537 227.828 172.282 1.00118.27 O

ATOM 8041 CB LEU B 389 199.585 228.281 172.199 1.00118.27 C
ATOM 8042 CG LEU B 389 198.173 227.743 172.435 1.00118.27 C
ATOM 8043 CD1 LEU B 389 197.333 227.893 171.177 1.00118.27 C
ATOM 8044 CD2 LEU B 389 198.216 226.292 172.883 1.00118.27 C
ATOM 8045 N ASP B 390 202.449 229.832 173.319 1.00118.81 N
ATOM 8046 CA ASP B 390 203.788 230.221 172.883 1.00118.81 C
ATOM 8047 C ASP B 390 204.833 229.224 173.364 1.00118.81 C
ATOM 8048 O ASP B 390 205.706 228.802 172.599 1.00118.81 O
ATOM 8049 CB ASP B 390 204.113 231.626 173.389 1.00118.81 C
ATOM 8050 CG ASP B 390 203.270 232.694 172.724 1.00118.81 C
ATOM 8051 OD1 ASP B 390 202.867 232.495 171.559 1.00118.81 O
ATOM 8052 OD2 ASP B 390 203.009 233.732 173.367 1.00118.81 O
ATOM 8053 N CYS B 391 204.757 228.835 174.633 1.00123.70 N
ATOM 8054 CA CYS B 391 205.636 227.812 175.180 1.00123.70 C
ATOM 8055 C CYS B 391 205.224 226.401 174.782 1.00123.70 C
ATOM 8056 O CYS B 391 205.863 225.441 175.225 1.00123.70 O
ATOM 8057 CB CYS B 391 205.679 227.927 176.705 1.00123.70 C
ATOM 8058 SG CYS B 391 204.082 227.667 177.502 1.00123.70 S
ATOM 8059 N VAL B 392 204.184 226.252 173.967 1.00117.77 N
ATOM 8060 CA VAL B 392 203.644 224.951 173.596 1.00117.77 C
ATOM 8061 C VAL B 392 203.634 224.760 172.083 1.00117.77 C
ATOM 8062 O VAL B 392 204.065 223.723 171.578 1.00117.77 O
ATOM 8063 CB VAL B 392 202.230 224.756 174.187 1.00117.77 C
ATOM 8064 CG1 VAL B 392 201.647 223.427 173.738 1.00117.77 C
ATOM 8065 CG2 VAL B 392 202.269 224.851 175.705 1.00117.77 C
ATOM 8066 N ARG B 393 203.138 225.755 171.342 1.00114.39 N
ATOM 8067 CA ARG B 393 202.956 225.585 169.903 1.00114.39 C
ATOM 8068 C ARG B 393 204.284 225.455 169.170 1.00114.39 C
ATOM 8069 O ARG B 393 204.362 224.744 168.162 1.00114.39 O
ATOM 8070 CB ARG B 393 202.148 226.747 169.326 1.00114.39 C
ATOM 8071 CG ARG B 393 202.865 228.084 169.351 1.00114.39 C
ATOM 8072 CD ARG B 393 201.990 229.184 168.782 1.00114.39 C
ATOM 8073 NE ARG B 393 201.736 228.991 167.358 1.00114.39 N
ATOM 8074 CZ ARG B 393 202.567 229.378 166.396 1.00114.39 C

ATOM 8075 NH1 ARG B 393 202.259 229.164 165.124 1.00114.39 N
ATOM 8076 NH2 ARG B 393 203.708 229.977 166.706 1.00114.39 N
ATOM 8077 N ASP B 394 205.330 226.137 169.643 1.00116.17 N
ATOM 8078 CA ASP B 394 206.630 226.023 168.990 1.00116.17 C
ATOM 8079 C ASP B 394 207.156 224.597 169.043 1.00116.17 C
ATOM 8080 O ASP B 394 207.828 224.148 168.107 1.00116.17 O
ATOM 8081 CB ASP B 394 207.627 226.989 169.627 1.00116.17 C
ATOM 8082 CG ASP B 394 207.321 228.437 169.301 1.00116.17 C
ATOM 8083 OD1 ASP B 394 206.736 228.691 168.227 1.00116.17 O
ATOM 8084 OD2 ASP B 394 207.670 229.321 170.112 1.00116.17 O
ATOM 8085 N GLU B 395 206.861 223.870 170.117 1.00117.91 N
ATOM 8086 CA GLU B 395 207.150 222.446 170.182 1.00117.91 C
ATOM 8087 C GLU B 395 206.055 221.604 169.541 1.00117.91 C
ATOM 8088 O GLU B 395 206.277 220.417 169.277 1.00117.91 O
ATOM 8089 CB GLU B 395 207.358 222.018 171.639 1.00117.91 C
ATOM 8090 CG GLU B 395 207.727 220.558 171.815 1.00117.91 C
ATOM 8091 CD GLU B 395 209.032 220.208 171.134 1.00117.91 C
ATOM 8092 OE1 GLU B 395 209.867 221.117 170.944 1.00117.91 O
ATOM 8093 OE2 GLU B 395 209.223 219.024 170.788 1.00117.91 O
ATOM 8094 N ALA B 396 204.889 222.197 169.275 1.00116.72 N
ATOM 8095 CA ALA B 396 203.811 221.466 168.617 1.00116.72 C
ATOM 8096 C ALA B 396 204.224 221.005 167.225 1.00116.72 C
ATOM 8097 O ALA B 396 203.820 219.927 166.774 1.00116.72 O
ATOM 8098 CB ALA B 396 202.560 222.340 168.543 1.00116.72 C
ATOM 8099 N ILE B 397 205.028 221.810 166.530 1.00116.55 N
ATOM 8100 CA ILE B 397 205.467 221.455 165.186 1.00116.55 C
ATOM 8101 C ILE B 397 206.670 220.519 165.205 1.00116.55 C
ATOM 8102 O ILE B 397 206.921 219.818 164.215 1.00116.55 O
ATOM 8103 CB ILE B 397 205.783 222.733 164.390 1.00116.55 C
ATOM 8104 CG1 ILE B 397 204.538 223.614 164.289 1.00116.55 C
ATOM 8105 CG2 ILE B 397 206.293 222.401 162.997 1.00116.55 C
ATOM 8106 CD1 ILE B 397 204.814 224.996 163.745 1.00116.55 C
ATOM 8107 N ASN B 398 207.410 220.469 166.313 1.00117.87 N
ATOM 8108 CA ASN B 398 208.663 219.720 166.342 1.00117.87 C

ATOM 8109 C ASN B 398 208.419 218.218 166.259 1.00117.87 C
ATOM 8110 O ASN B 398 208.883 217.551 165.327 1.00117.87 O
ATOM 8111 CB ASN B 398 209.447 220.067 167.609 1.00117.87 C
ATOM 8112 CG ASN B 398 209.987 221.484 167.591 1.00117.87 C
ATOM 8113 OD1 ASN B 398 210.459 221.968 166.563 1.00117.87 O
ATOM 8114 ND2 ASN B 398 209.928 222.154 168.736 1.00117.87 N
ATOM 8115 N LYS B 399 207.686 217.666 167.228 1.00116.96 N
ATOM 8116 CA LYS B 399 207.607 216.214 167.358 1.00116.96 C
ATOM 8117 C LYS B 399 206.825 215.569 166.220 1.00116.96 C
ATOM 8118 O LYS B 399 207.175 214.467 165.782 1.00116.96 O
ATOM 8119 CB LYS B 399 206.980 215.844 168.701 1.00116.96 C
ATOM 8120 CG LYS B 399 207.838 216.189 169.908 1.00116.96 C
ATOM 8121 CD LYS B 399 207.160 215.754 171.197 1.00116.96 C
ATOM 8122 CE LYS B 399 207.996 216.105 172.415 1.00116.96 C
ATOM 8123 NZ LYS B 399 207.324 215.686 173.676 1.00116.96 N
ATOM 8124 N LEU B 400 205.773 216.228 165.732 1.00117.03 N
ATOM 8125 CA LEU B 400 204.886 215.607 164.751 1.00117.03 C
ATOM 8126 C LEU B 400 205.619 215.306 163.448 1.00117.03 C
ATOM 8127 O LEU B 400 205.609 214.168 162.965 1.00117.03 O
ATOM 8128 CB LEU B 400 203.670 216.501 164.505 1.00117.03 C
ATOM 8129 CG LEU B 400 202.547 216.357 165.534 1.00117.03 C
ATOM 8130 CD1 LEU B 400 202.969 216.906 166.885 1.00117.03 C
ATOM 8131 CD2 LEU B 400 201.282 217.046 165.049 1.00117.03 C
ATOM 8132 N GLN B 401 206.255 216.321 162.856 1.00117.37 N
ATOM 8133 CA GLN B 401 207.095 216.072 161.687 1.00117.37 C
ATOM 8134 C GLN B 401 208.215 215.093 162.012 1.00117.37 C
ATOM 8135 O GLN B 401 208.640 214.323 161.144 1.00117.37 O
ATOM 8136 CB GLN B 401 207.668 217.386 161.159 1.00117.37 C
ATOM 8137 CG GLN B 401 206.623 218.330 160.592 1.00117.37 C
ATOM 8138 CD GLN B 401 207.220 219.629 160.089 1.00117.37 C
ATOM 8139 OE1 GLN B 401 208.423 219.858 160.208 1.00117.37 O
ATOM 8140 NE2 GLN B 401 206.380 220.489 159.526 1.00117.37 N
ATOM 8141 N GLN B 402 208.701 215.110 163.254 1.00119.60 N
ATOM 8142 CA GLN B 402 209.633 214.085 163.706 1.00119.60 C

ATOM 8143 C GLN B 402 208.960 212.719 163.744 1.00119.60 C
ATOM 8144 O GLN B 402 209.525 211.722 163.280 1.00119.60 O
ATOM 8145 CB GLN B 402 210.180 214.458 165.083 1.00119.60 C
ATOM 8146 CG GLN B 402 211.218 213.502 165.634 1.00119.60 C
ATOM 8147 CD GLN B 402 211.744 213.948 166.983 1.00119.60 C
ATOM 8148 OE1 GLN B 402 211.306 214.961 167.527 1.00119.60 O
ATOM 8149 NE2 GLN B 402 212.687 213.191 167.532 1.00119.60 N
ATOM 8150 N ILE B 403 207.746 212.655 164.297 1.00122.40 N
ATOM 8151 CA ILE B 403 207.031 211.386 164.365 1.00122.40 C
ATOM 8152 C ILE B 403 206.451 211.013 163.008 1.00122.40 C
ATOM 8153 O ILE B 403 206.394 209.829 162.656 1.00122.40 O
ATOM 8154 CB ILE B 403 205.939 211.443 165.448 1.00122.40 C
ATOM 8155 CG1 ILE B 403 206.563 211.703 166.819 1.00122.40 C
ATOM 8156 CG2 ILE B 403 205.148 210.150 165.469 1.00122.40 C
ATOM 8157 CD1 ILE B 403 207.522 210.621 167.262 1.00122.40 C
ATOM 8158 N PHE B 404 206.004 212.001 162.228 1.00125.37 N
ATOM 8159 CA PHE B 404 205.566 211.721 160.864 1.00125.37 C
ATOM 8160 C PHE B 404 206.709 211.154 160.035 1.00125.37 C
ATOM 8161 O PHE B 404 206.552 210.141 159.343 1.00125.37 O
ATOM 8162 CB PHE B 404 205.017 212.987 160.208 1.00125.37 C
ATOM 8163 CG PHE B 404 204.600 212.789 158.779 1.00125.37 C
ATOM 8164 CD1 PHE B 404 203.404 212.164 158.471 1.00125.37 C
ATOM 8165 CD2 PHE B 404 205.416 213.208 157.743 1.00125.37 C
ATOM 8166 CE1 PHE B 404 203.025 211.975 157.155 1.00125.37 C
ATOM 8167 CE2 PHE B 404 205.043 213.019 156.428 1.00125.37 C
ATOM 8168 CZ PHE B 404 203.846 212.403 156.134 1.00125.37 C
ATOM 8169 N ASN B 405 207.868 211.805 160.090 1.00127.09 N
ATOM 8170 CA ASN B 405 209.040 211.341 159.366 1.00127.09 C
ATOM 8171 C ASN B 405 209.752 210.207 160.093 1.00127.09 C
ATOM 8172 O ASN B 405 210.736 209.671 159.572 1.00127.09 O
ATOM 8173 CB ASN B 405 209.994 212.516 159.132 1.00127.09 C
ATOM 8174 CG ASN B 405 211.013 212.232 158.054 1.00127.09 C
ATOM 8175 OD1 ASN B 405 210.994 211.162 157.447 1.00127.09 O
ATOM 8176 ND2 ASN B 405 211.907 213.197 157.808 1.00127.09 N

ATOM 8177 N THR B 406 209.284 209.838 161.287 1.00126.33 N
ATOM 8178 CA THR B 406 209.794 208.639 161.942 1.00126.33 C
ATOM 8179 C THR B 406 209.563 207.408 161.075 1.00126.33 C
ATOM 8180 O THR B 406 210.516 206.761 160.628 1.00126.33 O
ATOM 8181 CB THR B 406 209.135 208.467 163.313 1.00126.33 C
ATOM 8182 OG1 THR B 406 209.457 209.586 164.148 1.00126.33 O
ATOM 8183 CG2 THR B 406 209.614 207.188 163.980 1.00126.33 C
ATOM 8184 N SER B 407 208.296 207.087 160.800 1.00130.12 N
ATOM 8185 CA SER B 407 207.947 205.893 160.042 1.00130.12 C
ATOM 8186 C SER B 407 207.230 206.176 158.730 1.00130.12 C
ATOM 8187 O SER B 407 206.735 205.232 158.105 1.00130.12 O
ATOM 8188 CB SER B 407 207.072 204.957 160.888 1.00130.12 C
ATOM 8189 OG SER B 407 206.673 203.824 160.136 1.00130.12 O
ATOM 8190 N TYR B 408 207.147 207.432 158.299 1.00130.90 N
ATOM 8191 CA TYR B 408 206.457 207.803 157.066 1.00130.90 C
ATOM 8192 C TYR B 408 207.317 208.836 156.340 1.00130.90 C
ATOM 8193 O TYR B 408 207.247 210.033 156.628 1.00130.90 O
ATOM 8194 CB TYR B 408 205.063 208.338 157.361 1.00130.90 C
ATOM 8195 CG TYR B 408 204.184 207.352 158.090 1.00130.90 C
ATOM 8196 CD1 TYR B 408 203.607 206.275 157.429 1.00130.90 C
ATOM 8197 CD2 TYR B 408 203.912 207.506 159.445 1.00130.90 C
ATOM 8198 CE1 TYR B 408 202.798 205.378 158.098 1.00130.90 C
ATOM 8199 CE2 TYR B 408 203.108 206.611 160.120 1.00130.90 C
ATOM 8200 CZ TYR B 408 202.558 205.544 159.440 1.00130.90 C
ATOM 8201 OH TYR B 408 201.755 204.648 160.106 1.00130.90 O
ATOM 8202 N ASN B 409 208.138 208.362 155.404 1.00133.92 N
ATOM 8203 CA ASN B 409 209.014 209.251 154.650 1.00133.92 C
ATOM 8204 C ASN B 409 208.276 209.923 153.494 1.00133.92 C
ATOM 8205 O ASN B 409 208.105 211.147 153.480 1.00133.92 O
ATOM 8206 CB ASN B 409 210.235 208.461 154.168 1.00133.92 C
ATOM 8207 CG ASN B 409 209.858 207.123 153.556 1.00133.92 C
ATOM 8208 OD1 ASN B 409 208.675 206.820 153.389 1.00133.92 O
ATOM 8209 ND2 ASN B 409 210.856 206.311 153.237 1.00133.92 N
ATOM 8210 N GLN B 410 207.835 209.138 152.513 1.00132.33 N

ATOM 8211 CA GLN B 410 206.939 209.666 151.491 1.00132.33 C
ATOM 8212 C GLN B 410 205.854 208.666 151.110 1.00132.33 C
ATOM 8213 O GLN B 410 205.107 208.934 150.159 1.00132.33 O
ATOM 8214 CB GLN B 410 207.725 210.097 150.243 1.00132.33 C
ATOM 8215 CG GLN B 410 208.391 208.964 149.488 1.00132.33 C
ATOM 8216 CD GLN B 410 209.779 208.658 150.011 1.00132.33 C
ATOM 8217 OE1 GLN B 410 210.137 209.050 151.121 1.00132.33 O
ATOM 8218 NE2 GLN B 410 210.576 207.968 149.204 1.00132.33 N
ATOM 8219 N THR B 411 205.746 207.528 151.798 1.00128.80 N
ATOM 8220 CA THR B 411 204.667 206.587 151.523 1.00128.80 C
ATOM 8221 C THR B 411 203.313 207.244 151.747 1.00128.80 C
ATOM 8222 O THR B 411 202.530 207.418 150.807 1.00128.80 O
ATOM 8223 CB THR B 411 204.818 205.341 152.398 1.00128.80 C
ATOM 8224 OG1 THR B 411 204.752 205.714 153.780 1.00128.80 O
ATOM 8225 CG2 THR B 411 206.149 204.656 152.123 1.00128.80 C
ATOM 8226 N TYR B 412 203.025 207.635 152.988 1.00119.64 N
ATOM 8227 CA TYR B 412 201.833 208.424 153.261 1.00119.64 C
ATOM 8228 C TYR B 412 202.124 209.900 153.029 1.00119.64 C
ATOM 8229 O TYR B 412 203.195 210.403 153.379 1.00119.64 O
ATOM 8230 CB TYR B 412 201.337 208.239 154.697 1.00119.64 C
ATOM 8231 CG TYR B 412 200.790 206.875 155.053 1.00119.64 C
ATOM 8232 CD1 TYR B 412 200.692 205.865 154.109 1.00119.64 C
ATOM 8233 CD2 TYR B 412 200.321 206.618 156.332 1.00119.64 C
ATOM 8234 CE1 TYR B 412 200.189 204.623 154.447 1.00119.64 C
ATOM 8235 CE2 TYR B 412 199.797 205.386 156.669 1.00119.64 C
ATOM 8236 CZ TYR B 412 199.732 204.394 155.722 1.00119.64 C
ATOM 8237 OH TYR B 412 199.218 203.160 156.053 1.00119.64 O
ATOM 8238 N GLU B 413 201.157 210.593 152.439 1.00119.32 N
ATOM 8239 CA GLU B 413 201.222 212.033 152.257 1.00119.32 C
ATOM 8240 C GLU B 413 200.419 212.725 153.347 1.00119.32 C
ATOM 8241 O GLU B 413 199.359 212.241 153.756 1.00119.32 O
ATOM 8242 CB GLU B 413 200.691 212.441 150.883 1.00119.32 C
ATOM 8243 CG GLU B 413 201.552 211.978 149.727 1.00119.32 C
ATOM 8244 CD GLU B 413 201.007 212.421 148.388 1.00119.32 C

ATOM 8245 OE1 GLU B 413 199.895 212.987 148.355 1.00119.32 O
ATOM 8246 OE2 GLU B 413 201.692 212.204 147.367 1.00119.32 O
ATOM 8247 N LYS B 414 200.934 213.858 153.816 1.00117.93 N
ATOM 8248 CA LYS B 414 200.250 214.625 154.844 1.00117.93 C
ATOM 8249 C LYS B 414 198.899 215.119 154.337 1.00117.93 C
ATOM 8250 O LYS B 414 198.682 215.308 153.137 1.00117.93 O
ATOM 8251 CB LYS B 414 201.107 215.813 155.281 1.00117.93 C
ATOM 8252 CG LYS B 414 202.344 215.436 156.071 1.00117.93 C
ATOM 8253 CD LYS B 414 203.246 216.641 156.276 1.00117.93 C
ATOM 8254 CE LYS B 414 202.627 217.653 157.222 1.00117.93 C
ATOM 8255 NZ LYS B 414 203.563 218.776 157.497 1.00117.93 N
ATOM 8256 N TYR B 415 197.981 215.331 155.276 1.00115.56 N
ATOM 8257 CA TYR B 415 196.652 215.843 154.969 1.00115.56 C
ATOM 8258 C TYR B 415 196.347 217.007 155.895 1.00115.56 C
ATOM 8259 O TYR B 415 196.314 216.838 157.118 1.00115.56 O
ATOM 8260 CB TYR B 415 195.585 214.757 155.114 1.00115.56 C
ATOM 8261 CG TYR B 415 194.189 215.243 154.797 1.00115.56 C
ATOM 8262 CD1 TYR B 415 193.794 215.471 153.485 1.00115.56 C
ATOM 8263 CD2 TYR B 415 193.264 215.466 155.807 1.00115.56 C
ATOM 8264 CE1 TYR B 415 192.520 215.912 153.191 1.00115.56 C
ATOM 8265 CE2 TYR B 415 191.986 215.905 155.521 1.00115.56 C
ATOM 8266 CZ TYR B 415 191.620 216.127 154.211 1.00115.56 C
ATOM 8267 OH TYR B 415 190.349 216.564 153.918 1.00115.56 O
ATOM 8268 N GLY B 416 196.117 218.180 155.314 1.00113.19 N
ATOM 8269 CA GLY B 416 195.775 219.345 156.102 1.00113.19 C
ATOM 8270 C GLY B 416 196.890 219.796 157.022 1.00113.19 C
ATOM 8271 O GLY B 416 198.026 219.326 156.916 1.00113.19 O
ATOM 8272 N ASN B 417 196.578 220.714 157.924 1.00105.59 N
ATOM 8273 CA ASN B 417 197.555 221.284 158.831 1.00105.59 C
ATOM 8274 C ASN B 417 197.326 220.711 160.225 1.00105.59 C
ATOM 8275 O ASN B 417 196.517 219.799 160.415 1.00105.59 O
ATOM 8276 CB ASN B 417 197.440 222.804 158.785 1.00105.59 C
ATOM 8277 CG ASN B 417 197.608 223.341 157.386 1.00105.59 C
ATOM 8278 OD1 ASN B 417 198.545 222.979 156.672 1.00105.59 O

ATOM 8279 ND2 ASN B 417 196.675 224.183 156.971 1.00105.59 N
ATOM 8280 N VAL B 418 198.040 221.240 161.217 1.00101.40 N
ATOM 8281 CA VAL B 418 197.784 220.840 162.593 1.00101.40 C
ATOM 8282 C VAL B 418 196.418 221.358 163.015 1.00101.40 C
ATOM 8283 O VAL B 418 195.986 222.441 162.597 1.00101.40 O
ATOM 8284 CB VAL B 418 198.890 221.357 163.528 1.00101.40 C
ATOM 8285 CG1 VAL B 418 198.882 222.874 163.561 1.00101.40 C
ATOM 8286 CG2 VAL B 418 198.709 220.790 164.929 1.00101.40 C
ATOM 8287 N SER B 419 195.725 220.581 163.841 1.00101.03 N
ATOM 8288 CA SER B 419 194.409 220.952 164.340 1.00101.03 C
ATOM 8289 C SER B 419 194.360 220.655 165.828 1.00101.03 C
ATOM 8290 O SER B 419 194.619 219.524 166.248 1.00101.03 O
ATOM 8291 CB SER B 419 193.301 220.197 163.599 1.00101.03 C
ATOM 8292 OG SER B 419 192.018 220.575 164.063 1.00101.03 O
ATOM 8293 N VAL B 420 194.021 221.667 166.617 1.00 99.15 N
ATOM 8294 CA VAL B 420 194.050 221.589 168.071 1.00 99.15 C
ATOM 8295 C VAL B 420 192.627 221.378 168.564 1.00 99.15 C
ATOM 8296 O VAL B 420 191.720 222.144 168.216 1.00 99.15 O
ATOM 8297 CB VAL B 420 194.679 222.848 168.682 1.00 99.15 C
ATOM 8298 CG1 VAL B 420 196.157 222.903 168.355 1.00 99.15 C
ATOM 8299 CG2 VAL B 420 194.002 224.075 168.118 1.00 99.15 C
ATOM 8300 N PHE B 421 192.430 220.333 169.364 1.00 99.10 N
ATOM 8301 CA PHE B 421 191.123 219.964 169.899 1.00 99.10 C
ATOM 8302 C PHE B 421 191.224 219.915 171.417 1.00 99.10 C
ATOM 8303 O PHE B 421 191.859 219.011 171.970 1.00 99.10 O
ATOM 8304 CB PHE B 421 190.662 218.616 169.348 1.00 99.10 C
ATOM 8305 CG PHE B 421 190.377 218.622 167.876 1.00 99.10 C
ATOM 8306 CD1 PHE B 421 189.160 219.065 167.393 1.00 99.10 C
ATOM 8307 CD2 PHE B 421 191.328 218.184 166.976 1.00 99.10 C
ATOM 8308 CE1 PHE B 421 188.898 219.068 166.039 1.00 99.10 C
ATOM 8309 CE2 PHE B 421 191.072 218.185 165.622 1.00 99.10 C
ATOM 8310 CZ PHE B 421 189.856 218.630 165.153 1.00 99.10 C
ATOM 8311 N GLU B 422 190.606 220.879 172.090 1.00101.00 N
ATOM 8312 CA GLU B 422 190.576 220.857 173.545 1.00101.00 C

ATOM 8313 C GLU B 422 189.645 219.752 174.026 1.00101.00 C
ATOM 8314 O GLU B 422 188.485 219.678 173.611 1.00101.00 O
ATOM 8315 CB GLU B 422 190.128 222.210 174.092 1.00101.00 C
ATOM 8316 CG GLU B 422 190.140 222.285 175.609 1.00101.00 C
ATOM 8317 CD GLU B 422 189.767 223.656 176.132 1.00101.00 C
ATOM 8318 OE1 GLU B 422 189.490 224.553 175.308 1.00101.00 O
ATOM 8319 OE2 GLU B 422 189.749 223.836 177.367 1.00101.00 O
ATOM 8320 N THR B 423 190.155 218.890 174.900 1.00101.10 N
ATOM 8321 CA THR B 423 189.391 217.753 175.395 1.00101.10 C
ATOM 8322 C THR B 423 188.441 218.211 176.500 1.00101.10 C
ATOM 8323 O THR B 423 188.233 219.406 176.722 1.00101.10 O
ATOM 8324 CB THR B 423 190.330 216.655 175.882 1.00101.10 C
ATOM 8325 OG1 THR B 423 191.118 217.151 176.971 1.00101.10 O
ATOM 8326 CG2 THR B 423 191.251 216.208 174.759 1.00101.10 C
ATOM 8327 N THR B 424 187.846 217.250 177.204 1.00107.30 N
ATOM 8328 CA THR B 424 186.946 217.548 178.312 1.00107.30 C
ATOM 8329 C THR B 424 187.707 217.785 179.612 1.00107.30 C
ATOM 8330 O THR B 424 187.423 218.746 180.335 1.00107.30 O
ATOM 8331 CB THR B 424 185.938 216.410 178.497 1.00107.30 C
ATOM 8332 OG1 THR B 424 186.635 215.198 178.811 1.00107.30 O
ATOM 8333 CG2 THR B 424 185.127 216.207 177.229 1.00107.30 C
ATOM 8334 N GLY B 425 188.671 216.923 179.922 1.00103.94 N
ATOM 8335 CA GLY B 425 189.436 217.052 181.146 1.00103.94 C
ATOM 8336 C GLY B 425 190.638 217.966 181.025 1.00103.94 C
ATOM 8337 O GLY B 425 191.692 217.695 181.606 1.00103.94 O
ATOM 8338 N GLY B 426 190.493 219.056 180.270 1.00 99.07 N
ATOM 8339 CA GLY B 426 191.544 220.039 180.124 1.00 99.07 C
ATOM 8340 C GLY B 426 192.682 219.654 179.206 1.00 99.07 C
ATOM 8341 O GLY B 426 193.480 220.525 178.839 1.00 99.07 O
ATOM 8342 N LEU B 427 192.793 218.384 178.822 1.00 97.98 N
ATOM 8343 CA LEU B 427 193.886 217.955 177.961 1.00 97.98 C
ATOM 8344 C LEU B 427 193.769 218.607 176.589 1.00 97.98 C
ATOM 8345 O LEU B 427 192.703 218.587 175.967 1.00 97.98 O
ATOM 8346 CB LEU B 427 193.888 216.432 177.824 1.00 97.98 C

ATOM 8347 CG LEU B 427 194.419 215.616 179.005 1.00 97.98 C
ATOM 8348 CD1 LEU B 427 193.432 215.626 180.162 1.00 97.98 C
ATOM 8349 CD2 LEU B 427 194.726 214.191 178.575 1.00 97.98 C
ATOM 8350 N VAL B 428 194.870 219.186 176.121 1.00 97.76 N
ATOM 8351 CA VAL B 428 194.920 219.879 174.840 1.00 97.76 C
ATOM 8352 C VAL B 428 195.693 219.008 173.860 1.00 97.76 C
ATOM 8353 O VAL B 428 196.841 218.631 174.126 1.00 97.76 O
ATOM 8354 CB VAL B 428 195.567 221.266 174.979 1.00 97.76 C
ATOM 8355 CG1 VAL B 428 195.703 221.928 173.620 1.00 97.76 C
ATOM 8356 CG2 VAL B 428 194.753 222.137 175.920 1.00 97.76 C
ATOM 8357 N VAL B 429 195.068 218.682 172.729 1.00100.16 N
ATOM 8358 CA VAL B 429 195.685 217.836 171.718 1.00100.16 C
ATOM 8359 C VAL B 429 195.706 218.576 170.387 1.00100.16 C
ATOM 8360 O VAL B 429 194.992 219.558 170.174 1.00100.16 O
ATOM 8361 CB VAL B 429 194.968 216.481 171.566 1.00100.16 C
ATOM 8362 CG1 VAL B 429 195.019 215.706 172.868 1.00100.16 C
ATOM 8363 CG2 VAL B 429 193.536 216.687 171.115 1.00100.16 C
ATOM 8364 N PHE B 430 196.543 218.077 169.483 1.00107.98 N
ATOM 8365 CA PHE B 430 196.717 218.664 168.164 1.00107.98 C
ATOM 8366 C PHE B 430 197.372 217.625 167.268 1.00107.98 C
ATOM 8367 O PHE B 430 198.135 216.778 167.741 1.00107.98 O
ATOM 8368 CB PHE B 430 197.554 219.944 168.232 1.00107.98 C
ATOM 8369 CG PHE B 430 198.931 219.737 168.789 1.00107.98 C
ATOM 8370 CD1 PHE B 430 199.156 219.806 170.153 1.00107.98 C
ATOM 8371 CD2 PHE B 430 200.003 219.482 167.952 1.00107.98 C
ATOM 8372 CE1 PHE B 430 200.420 219.616 170.671 1.00107.98 C
ATOM 8373 CE2 PHE B 430 201.267 219.291 168.465 1.00107.98 C
ATOM 8374 CZ PHE B 430 201.477 219.360 169.825 1.00107.98 C
ATOM 8375 N TRP B 431 197.076 217.695 165.975 1.00103.28 N
ATOM 8376 CA TRP B 431 197.478 216.621 165.073 1.00103.28 C
ATOM 8377 C TRP B 431 197.133 217.018 163.642 1.00103.28 C
ATOM 8378 O TRP B 431 196.595 218.100 163.384 1.00103.28 O
ATOM 8379 CB TRP B 431 196.800 215.316 165.479 1.00103.28 C
ATOM 8380 CG TRP B 431 195.325 215.392 165.392 1.00103.28 C

ATOM 8381 CD1 TRP B 431 194.477 215.898 166.329 1.00103.28 C
ATOM 8382 CD2 TRP B 431 194.506 214.928 164.321 1.00103.28 C
ATOM 8383 NE1 TRP B 431 193.177 215.795 165.900 1.00103.28 N
ATOM 8384 CE2 TRP B 431 193.170 215.198 164.669 1.00103.28 C
ATOM 8385 CE3 TRP B 431 194.773 214.313 163.097 1.00103.28 C
ATOM 8386 CZ2 TRP B 431 192.105 214.880 163.838 1.00103.28 C
ATOM 8387 CZ3 TRP B 431 193.713 213.993 162.272 1.00103.28 C
ATOM 8388 CH2 TRP B 431 192.394 214.277 162.648 1.00103.28 C
ATOM 8389 N GLN B 432 197.457 216.123 162.708 1.00110.53 N
ATOM 8390 CA GLN B 432 197.219 216.339 161.288 1.00110.53 C
ATOM 8391 C GLN B 432 196.908 215.005 160.623 1.00110.53 C
ATOM 8392 O GLN B 432 197.299 213.940 161.106 1.00110.53 O
ATOM 8393 CB GLN B 432 198.423 217.007 160.613 1.00110.53 C
ATOM 8394 CG GLN B 432 199.683 216.158 160.613 1.00110.53 C
ATOM 8395 CD GLN B 432 200.873 216.880 160.017 1.00110.53 C
ATOM 8396 OE1 GLN B 432 200.761 218.019 159.563 1.00110.53 O
ATOM 8397 NE2 GLN B 432 202.023 216.218 160.010 1.00110.53 N
ATOM 8398 N GLY B 433 196.195 215.076 159.496 1.00112.59 N
ATOM 8399 CA GLY B 433 195.781 213.875 158.804 1.00112.59 C
ATOM 8400 C GLY B 433 196.886 213.262 157.963 1.00112.59 C
ATOM 8401 O GLY B 433 197.818 213.931 157.520 1.00112.59 O
ATOM 8402 N ILE B 434 196.770 211.954 157.739 1.00113.31 N
ATOM 8403 CA ILE B 434 197.780 211.190 157.016 1.00113.31 C
ATOM 8404 C ILE B 434 197.091 210.200 156.087 1.00113.31 C
ATOM 8405 O ILE B 434 196.026 209.664 156.412 1.00113.31 O
ATOM 8406 CB ILE B 434 198.733 210.459 157.983 1.00113.31 C
ATOM 8407 CG1 ILE B 434 199.915 209.864 157.219 1.00113.31 C
ATOM 8408 CG2 ILE B 434 197.985 209.380 158.748 1.00113.31 C
ATOM 8409 CD1 ILE B 434 201.050 209.412 158.109 1.00113.31 C
ATOM 8410 N LYS B 435 197.702 209.961 154.929 1.00113.58 N
ATOM 8411 CA LYS B 435 197.216 208.984 153.961 1.00113.58 C
ATOM 8412 C LYS B 435 198.222 208.911 152.821 1.00113.58 C
ATOM 8413 O LYS B 435 199.172 209.693 152.758 1.00113.58 O
ATOM 8414 CB LYS B 435 195.825 209.337 153.430 1.00113.58 C

ATOM 8415 CG LYS B 435 195.764 210.628 152.637 1.00113.58 C
ATOM 8416 CD LYS B 435 194.400 210.804 152.003 1.00113.58 C
ATOM 8417 CE LYS B 435 193.348 211.056 153.054 1.00113.58 C
ATOM 8418 NZ LYS B 435 193.610 212.333 153.757 1.00113.58 N
ATOM 8419 N GLN B 436 197.993 207.966 151.912 1.00112.08 N
ATOM 8420 CA GLN B 436 198.888 207.779 150.772 1.00112.08 C
ATOM 8421 C GLN B 436 198.125 207.703 149.456 1.00112.08 C
ATOM 8422 O GLN B 436 198.646 207.196 148.462 1.00112.08 O
ATOM 8423 CB GLN B 436 199.724 206.514 150.948 1.00112.08 C
ATOM 8424 CG GLN B 436 198.956 205.230 150.726 1.00112.08 C
ATOM 8425 CD GLN B 436 198.164 204.824 151.941 1.00112.08 C
ATOM 8426 OE1 GLN B 436 197.878 205.646 152.810 1.00112.08 O
ATOM 8427 NE2 GLN B 436 197.834 203.543 152.031 1.00112.08 N
ATOM 8428 N GLN B 483 188.740 199.000 138.721 1.00100.59 N
ATOM 8429 CA GLN B 483 189.548 199.947 139.480 1.00100.59 C
ATOM 8430 C GLN B 483 190.628 199.250 140.299 1.00100.59 C
ATOM 8431 O GLN B 483 191.792 199.651 140.265 1.00100.59 O
ATOM 8432 CB GLN B 483 188.664 200.785 140.404 1.00100.59 C
ATOM 8433 CG GLN B 483 189.432 201.802 141.231 1.00100.59 C
ATOM 8434 CD GLN B 483 190.149 202.825 140.376 1.00100.59 C
ATOM 8435 OE1 GLN B 483 191.366 202.763 140.203 1.00100.59 O
ATOM 8436 NE2 GLN B 483 189.398 203.776 139.836 1.00100.59 N
ATOM 8437 N LEU B 484 190.214 198.229 141.056 1.00100.72 N
ATOM 8438 CA LEU B 484 191.083 197.431 141.919 1.00100.72 C
ATOM 8439 C LEU B 484 191.480 198.182 143.187 1.00100.72 C
ATOM 8440 O LEU B 484 192.127 197.613 144.073 1.00100.72 O
ATOM 8441 CB LEU B 484 192.331 196.969 141.156 1.00100.72 C
ATOM 8442 CG LEU B 484 193.337 196.082 141.894 1.00100.72 C
ATOM 8443 CD1 LEU B 484 192.684 194.785 142.335 1.00100.72 C
ATOM 8444 CD2 LEU B 484 194.551 195.805 141.022 1.00100.72 C
ATOM 8445 N GLN B 485 191.087 199.450 143.301 1.00100.32 N
ATOM 8446 CA GLN B 485 191.363 200.212 144.511 1.00100.32 C
ATOM 8447 C GLN B 485 190.211 200.158 145.500 1.00100.32 C
ATOM 8448 O GLN B 485 190.447 200.156 146.714 1.00100.32 O

ATOM 8449 CB GLN B 485 191.677 201.670 144.160 1.00100.32 C
ATOM 8450 CG GLN B 485 192.235 202.494 145.316 1.00100.32 C
ATOM 8451 CD GLN B 485 191.154 203.146 146.157 1.00100.32 C
ATOM 8452 OE1 GLN B 485 190.074 203.464 145.660 1.00100.32 O
ATOM 8453 NE2 GLN B 485 191.437 203.341 147.439 1.00100.32 N
ATOM 8454 N PHE B 486 188.971 200.118 145.007 1.00 99.71 N
ATOM 8455 CA PHE B 486 187.818 200.082 145.899 1.00 99.71 C
ATOM 8456 C PHE B 486 187.802 198.818 146.747 1.00 99.71 C
ATOM 8457 O PHE B 486 187.245 198.817 147.850 1.00 99.71 O
ATOM 8458 CB PHE B 486 186.529 200.197 145.089 1.00 99.71 C
ATOM 8459 CG PHE B 486 185.289 200.214 145.928 1.00 99.71 C
ATOM 8460 CD1 PHE B 486 184.941 201.342 146.648 1.00 99.71 C
ATOM 8461 CD2 PHE B 486 184.469 199.102 145.997 1.00 99.71 C
ATOM 8462 CE1 PHE B 486 183.800 201.362 147.422 1.00 99.71 C
ATOM 8463 CE2 PHE B 486 183.325 199.116 146.768 1.00 99.71 C
ATOM 8464 CZ PHE B 486 182.990 200.247 147.482 1.00 99.71 C
ATOM 8465 N THR B 487 188.398 197.734 146.249 1.00 97.31 N
ATOM 8466 CA THR B 487 188.518 196.524 147.054 1.00 97.31 C
ATOM 8467 C THR B 487 189.412 196.756 148.264 1.00 97.31 C
ATOM 8468 O THR B 487 189.137 196.247 149.356 1.00 97.31 O
ATOM 8469 CB THR B 487 189.067 195.382 146.203 1.00 97.31 C
ATOM 8470 OG1 THR B 487 190.383 195.720 145.751 1.00 97.31 O
ATOM 8471 CG2 THR B 487 188.175 195.146 144.998 1.00 97.31 C
ATOM 8472 N TYR B 488 190.490 197.522 148.086 1.00 95.05 N
ATOM 8473 CA TYR B 488 191.449 197.718 149.168 1.00 95.05 C
ATOM 8474 C TYR B 488 190.874 198.589 150.279 1.00 95.05 C
ATOM 8475 O TYR B 488 191.153 198.356 151.460 1.00 95.05 O
ATOM 8476 CB TYR B 488 192.734 198.333 148.619 1.00 95.05 C
ATOM 8477 CG TYR B 488 193.809 198.535 149.658 1.00 95.05 C
ATOM 8478 CD1 TYR B 488 194.553 197.465 150.131 1.00 95.05 C
ATOM 8479 CD2 TYR B 488 194.084 199.797 150.164 1.00 95.05 C
ATOM 8480 CE1 TYR B 488 195.538 197.644 151.079 1.00 95.05 C
ATOM 8481 CE2 TYR B 488 195.068 199.987 151.113 1.00 95.05 C
ATOM 8482 CZ TYR B 488 195.792 198.907 151.567 1.00 95.05 C

ATOM 8483 OH TYR B 488 196.774 199.091 152.513 1.00 95.05 O
ATOM 8484 N ASP B 489 190.082 199.602 149.921 1.00 98.31 N
ATOM 8485 CA ASP B 489 189.548 200.514 150.929 1.00 98.31 C
ATOM 8486 C ASP B 489 188.632 199.781 151.901 1.00 98.31 C
ATOM 8487 O ASP B 489 188.870 199.781 153.115 1.00 98.31 O
ATOM 8488 CB ASP B 489 188.803 201.668 150.258 1.00 98.31 C
ATOM 8489 CG ASP B 489 188.471 202.792 151.225 1.00 98.31 C
ATOM 8490 OD1 ASP B 489 188.835 202.689 152.416 1.00 98.31 O
ATOM 8491 OD2 ASP B 489 187.839 203.780 150.796 1.00 98.31 O
ATOM 8492 N THR B 490 187.571 199.158 151.384 1.00 97.48 N
ATOM 8493 CA THR B 490 186.619 198.468 152.249 1.00 97.48 C
ATOM 8494 C THR B 490 187.290 197.342 153.021 1.00 97.48 C
ATOM 8495 O THR B 490 186.945 197.080 154.179 1.00 97.48 O
ATOM 8496 CB THR B 490 185.453 197.927 151.426 1.00 97.48 C
ATOM 8497 OG1 THR B 490 185.940 196.963 150.484 1.00 97.48 O
ATOM 8498 CG2 THR B 490 184.773 199.056 150.676 1.00 97.48 C
ATOM 8499 N LEU B 491 188.254 196.665 152.398 1.00 96.55 N
ATOM 8500 CA LEU B 491 188.966 195.603 153.094 1.00 96.55 C
ATOM 8501 C LEU B 491 190.023 196.149 154.045 1.00 96.55 C
ATOM 8502 O LEU B 491 190.594 195.381 154.825 1.00 96.55 O
ATOM 8503 CB LEU B 491 189.583 194.644 152.078 1.00 96.55 C
ATOM 8504 CG LEU B 491 190.288 193.410 152.630 1.00 96.55 C
ATOM 8505 CD1 LEU B 491 189.347 192.633 153.523 1.00 96.55 C
ATOM 8506 CD2 LEU B 491 190.728 192.545 151.473 1.00 96.55 C
ATOM 8507 N ARG B 492 190.294 197.453 153.999 1.00 95.64 N
ATOM 8508 CA ARG B 492 191.074 198.111 155.038 1.00 95.64 C
ATOM 8509 C ARG B 492 190.219 198.945 155.976 1.00 95.64 C
ATOM 8510 O ARG B 492 190.545 199.056 157.161 1.00 95.64 O
ATOM 8511 CB ARG B 492 192.148 199.013 154.427 1.00 95.64 C
ATOM 8512 CG ARG B 492 193.058 199.645 155.464 1.00 95.64 C
ATOM 8513 CD ARG B 492 194.070 200.562 154.817 1.00 95.64 C
ATOM 8514 NE ARG B 492 193.431 201.735 154.230 1.00 95.64 N
ATOM 8515 CZ ARG B 492 194.057 202.612 153.455 1.00 95.64 C
ATOM 8516 NH1 ARG B 492 193.402 203.653 152.962 1.00 95.64 N

ATOM 8517 NH2 ARG B 492 195.340 202.446 153.175 1.00 95.64 N
ATOM 8518 N GLY B 493 189.135 199.539 155.473 1.00 95.00 N
ATOM 8519 CA GLY B 493 188.198 200.223 156.343 1.00 95.00 C
ATOM 8520 C GLY B 493 187.457 199.296 157.279 1.00 95.00 C
ATOM 8521 O GLY B 493 186.920 199.752 158.293 1.00 95.00 O
ATOM 8522 N TYR B 494 187.411 198.003 156.957 1.00 94.33 N
ATOM 8523 CA TYR B 494 186.802 197.029 157.850 1.00 94.33 C
ATOM 8524 C TYR B 494 187.727 196.655 159.000 1.00 94.33 C
ATOM 8525 O TYR B 494 187.252 196.401 160.112 1.00 94.33 O
ATOM 8526 CB TYR B 494 186.409 195.778 157.067 1.00 94.33 C
ATOM 8527 CG TYR B 494 185.750 194.715 157.909 1.00 94.33 C
ATOM 8528 CD1 TYR B 494 184.432 194.847 158.320 1.00 94.33 C
ATOM 8529 CD2 TYR B 494 186.447 193.580 158.294 1.00 94.33 C
ATOM 8530 CE1 TYR B 494 183.826 193.876 159.091 1.00 94.33 C
ATOM 8531 CE2 TYR B 494 185.850 192.604 159.065 1.00 94.33 C
ATOM 8532 CZ TYR B 494 184.539 192.757 159.461 1.00 94.33 C
ATOM 8533 OH TYR B 494 183.940 191.786 160.229 1.00 94.33 O
ATOM 8534 N ILE B 495 189.037 196.612 158.755 1.00 90.03 N
ATOM 8535 CA ILE B 495 189.983 196.306 159.824 1.00 90.03 C
ATOM 8536 C ILE B 495 189.956 197.400 160.883 1.00 90.03 C
ATOM 8537 O ILE B 495 189.887 197.121 162.086 1.00 90.03 O
ATOM 8538 CB ILE B 495 191.397 196.112 159.252 1.00 90.03 C
ATOM 8539 CG1 ILE B 495 191.428 194.913 158.307 1.00 90.03 C
ATOM 8540 CG2 ILE B 495 192.400 195.929 160.374 1.00 90.03 C
ATOM 8541 CD1 ILE B 495 192.704 194.803 157.510 1.00 90.03 C
ATOM 8542 N ASN B 496 190.018 198.662 160.452 1.00 89.90 N
ATOM 8543 CA ASN B 496 189.832 199.769 161.384 1.00 89.90 C
ATOM 8544 C ASN B 496 188.456 199.716 162.030 1.00 89.90 C
ATOM 8545 O ASN B 496 188.290 200.141 163.179 1.00 89.90 O
ATOM 8546 CB ASN B 496 190.028 201.101 160.664 1.00 89.90 C
ATOM 8547 CG ASN B 496 191.458 201.316 160.220 1.00 89.90 C
ATOM 8548 OD1 ASN B 496 192.400 201.000 160.946 1.00 89.90 O
ATOM 8549 ND2 ASN B 496 191.629 201.859 159.022 1.00 89.90 N
ATOM 8550 N ARG B 497 187.460 199.203 161.306 1.00 95.73 N

ATOM 8551 CA ARG B 497 186.133 199.024 161.880 1.00 95.73 C
ATOM 8552 C ARG B 497 186.156 198.074 163.070 1.00 95.73 C
ATOM 8553 O ARG B 497 185.332 198.204 163.981 1.00 95.73 O
ATOM 8554 CB ARG B 497 185.171 198.512 160.809 1.00 95.73 C
ATOM 8555 CG ARG B 497 183.749 198.330 161.294 1.00 95.73 C
ATOM 8556 CD ARG B 497 183.030 199.660 161.379 1.00 95.73 C
ATOM 8557 NE ARG B 497 183.392 200.386 162.591 1.00 95.73 N
ATOM 8558 CZ ARG B 497 182.917 200.101 163.799 1.00 95.73 C
ATOM 8559 NH1 ARG B 497 183.298 200.814 164.849 1.00 95.73 N
ATOM 8560 NH2 ARG B 497 182.066 199.097 163.957 1.00 95.73 N
ATOM 8561 N ALA B 498 187.084 197.115 163.079 1.00 89.85 N
ATOM 8562 CA ALA B 498 187.141 196.146 164.167 1.00 89.85 C
ATOM 8563 C ALA B 498 188.002 196.640 165.322 1.00 89.85 C
ATOM 8564 O ALA B 498 187.688 196.377 166.488 1.00 89.85 O
ATOM 8565 CB ALA B 498 187.664 194.806 163.651 1.00 89.85 C
ATOM 8566 N LEU B 499 189.084 197.358 165.025 1.00 85.32 N
ATOM 8567 CA LEU B 499 189.980 197.843 166.067 1.00 85.32 C
ATOM 8568 C LEU B 499 189.372 198.954 166.912 1.00 85.32 C
ATOM 8569 O LEU B 499 189.979 199.346 167.914 1.00 85.32 O
ATOM 8570 CB LEU B 499 191.291 198.331 165.450 1.00 85.32 C
ATOM 8571 CG LEU B 499 192.159 197.253 164.803 1.00 85.32 C
ATOM 8572 CD1 LEU B 499 193.367 197.878 164.128 1.00 85.32 C
ATOM 8573 CD2 LEU B 499 192.587 196.224 165.836 1.00 85.32 C
ATOM 8574 N ALA B 500 188.204 199.471 166.539 1.00 90.06 N
ATOM 8575 CA ALA B 500 187.538 200.480 167.351 1.00 90.06 C
ATOM 8576 C ALA B 500 186.651 199.858 168.419 1.00 90.06 C
ATOM 8577 O ALA B 500 186.601 200.357 169.547 1.00 90.06 O
ATOM 8578 CB ALA B 500 186.712 201.414 166.464 1.00 90.06 C
ATOM 8579 N GLN B 501 185.959 198.767 168.094 1.00 92.17 N
ATOM 8580 CA GLN B 501 185.116 198.092 169.072 1.00 92.17 C
ATOM 8581 C GLN B 501 185.911 197.230 170.042 1.00 92.17 C
ATOM 8582 O GLN B 501 185.312 196.600 170.919 1.00 92.17 O
ATOM 8583 CB GLN B 501 184.061 197.240 168.365 1.00 92.17 C
ATOM 8584 CG GLN B 501 184.621 196.085 167.561 1.00 92.17 C

ATOM 8585 CD GLN B 501 183.537 195.315 166.834 1.00 92.17 C
ATOM 8586 OE1 GLN B 501 182.351 195.612 166.974 1.00 92.17 O
ATOM 8587 NE2 GLN B 501 183.939 194.322 166.052 1.00 92.17 N
ATOM 8588 N ILE B 502 187.235 197.182 169.905 1.00 86.68 N
ATOM 8589 CA ILE B 502 188.066 196.542 170.917 1.00 86.68 C
ATOM 8590 C ILE B 502 188.359 197.512 172.053 1.00 86.68 C
ATOM 8591 O ILE B 502 188.109 197.214 173.226 1.00 86.68 O
ATOM 8592 CB ILE B 502 189.362 196.006 170.284 1.00 86.68 C
ATOM 8593 CG1 ILE B 502 189.039 194.987 169.192 1.00 86.68 C
ATOM 8594 CG2 ILE B 502 190.251 195.379 171.343 1.00 86.68 C
ATOM 8595 CD1 ILE B 502 188.303 193.771 169.697 1.00 86.68 C
ATOM 8596 N ALA B 503 188.888 198.692 171.721 1.00 89.45 N
ATOM 8597 CA ALA B 503 189.175 199.687 172.748 1.00 89.45 C
ATOM 8598 C ALA B 503 187.901 200.224 173.388 1.00 89.45 C
ATOM 8599 O ALA B 503 187.939 200.720 174.518 1.00 89.45 O
ATOM 8600 CB ALA B 503 189.998 200.830 172.157 1.00 89.45 C
ATOM 8601 N GLU B 504 186.770 200.150 172.683 1.00 97.06 N
ATOM 8602 CA GLU B 504 185.503 200.532 173.300 1.00 97.06 C
ATOM 8603 C GLU B 504 185.163 199.602 174.455 1.00 97.06 C
ATOM 8604 O GLU B 504 184.621 200.039 175.477 1.00 97.06 O
ATOM 8605 CB GLU B 504 184.385 200.530 172.260 1.00 97.06 C
ATOM 8606 CG GLU B 504 184.520 201.622 171.219 1.00 97.06 C
ATOM 8607 CD GLU B 504 183.429 201.568 170.172 1.00 97.06 C
ATOM 8608 OE1 GLU B 504 182.620 200.618 170.201 1.00 97.06 O
ATOM 8609 OE2 GLU B 504 183.387 202.473 169.313 1.00 97.06 O
ATOM 8610 N ALA B 505 185.477 198.318 174.311 1.00 95.23 N
ATOM 8611 CA ALA B 505 185.381 197.363 175.405 1.00 95.23 C
ATOM 8612 C ALA B 505 186.628 197.356 176.273 1.00 95.23 C
ATOM 8613 O ALA B 505 186.865 196.382 176.996 1.00 95.23 O
ATOM 8614 CB ALA B 505 185.117 195.958 174.859 1.00 95.23 C
ATOM 8615 N TRP B 506 187.428 198.417 176.207 1.00101.06 N
ATOM 8616 CA TRP B 506 188.648 198.535 176.990 1.00101.06 C
ATOM 8617 C TRP B 506 188.505 199.470 178.178 1.00101.06 C
ATOM 8618 O TRP B 506 189.121 199.229 179.220 1.00101.06 O

ATOM 8619 CB TRP B 506 189.795 199.028 176.106 1.00101.06 C
ATOM 8620 CG TRP B 506 191.081 199.068 176.825 1.00101.06 C
ATOM 8621 CD1 TRP B 506 191.728 200.170 177.296 1.00101.06 C
ATOM 8622 CD2 TRP B 506 191.881 197.943 177.186 1.00101.06 C
ATOM 8623 NE1 TRP B 506 192.895 199.799 177.920 1.00101.06 N
ATOM 8624 CE2 TRP B 506 193.010 198.435 177.866 1.00101.06 C
ATOM 8625 CE3 TRP B 506 191.754 196.565 176.995 1.00101.06 C
ATOM 8626 CZ2 TRP B 506 194.005 197.598 178.356 1.00101.06 C
ATOM 8627 CZ3 TRP B 506 192.741 195.737 177.481 1.00101.06 C
ATOM 8628 CH2 TRP B 506 193.851 196.255 178.152 1.00101.06 C
ATOM 8629 N CYS B 507 187.708 200.532 178.042 1.00101.96 N
ATOM 8630 CA CYS B 507 187.483 201.446 179.154 1.00101.96 C
ATOM 8631 C CYS B 507 186.814 200.757 180.336 1.00101.96 C
ATOM 8632 O CYS B 507 186.973 201.211 181.474 1.00101.96 O
ATOM 8633 CB CYS B 507 186.636 202.630 178.687 1.00101.96 C
ATOM 8634 SG CYS B 507 186.362 203.913 179.927 1.00101.96 S
ATOM 8635 N VAL B 508 186.073 199.676 180.095 1.00 93.20 N
ATOM 8636 CA VAL B 508 185.423 198.961 181.188 1.00 93.20 C
ATOM 8637 C VAL B 508 186.444 198.194 182.016 1.00 93.20 C
ATOM 8638 O VAL B 508 186.290 198.048 183.232 1.00 93.20 O
ATOM 8639 CB VAL B 508 184.331 198.030 180.636 1.00 93.20 C
ATOM 8640 CG1 VAL B 508 183.736 197.200 181.758 1.00 93.20 C
ATOM 8641 CG2 VAL B 508 183.255 198.840 179.933 1.00 93.20 C
ATOM 8642 N ASP B 509 187.493 197.685 181.376 1.00 95.37 N
ATOM 8643 CA ASP B 509 188.555 196.985 182.084 1.00 95.37 C
ATOM 8644 C ASP B 509 189.584 197.932 182.677 1.00 95.37 C
ATOM 8645 O ASP B 509 190.513 197.473 183.350 1.00 95.37 O
ATOM 8646 CB ASP B 509 189.232 195.994 181.143 1.00 95.37 C
ATOM 8647 CG ASP B 509 188.323 194.849 180.767 1.00 95.37 C
ATOM 8648 OD1 ASP B 509 187.512 194.427 181.618 1.00 95.37 O
ATOM 8649 OD2 ASP B 509 188.392 194.397 179.609 1.00 95.37 O
ATOM 8650 N GLN B 510 189.442 199.233 182.438 1.00 87.69 N
ATOM 8651 CA GLN B 510 190.257 200.240 183.095 1.00 87.69 C
ATOM 8652 C GLN B 510 189.601 200.777 184.357 1.00 87.69 C

ATOM 8653 O GLN B 510 190.302 201.302 185.228 1.00 87.69 O
ATOM 8654 CB GLN B 510 190.550 201.388 182.115 1.00 87.69 C
ATOM 8655 CG GLN B 510 191.599 202.407 182.553 1.00 87.69 C
ATOM 8656 CD GLN B 510 191.040 203.497 183.445 1.00 87.69 C
ATOM 8657 OE1 GLN B 510 191.555 203.748 184.533 1.00 87.69 O
ATOM 8658 NE2 GLN B 510 189.973 204.143 182.992 1.00 87.69 N
ATOM 8659 N ARG B 511 188.284 200.636 184.489 1.00 79.28 N
ATOM 8660 CA ARG B 511 187.599 201.044 185.706 1.00 79.28 C
ATOM 8661 C ARG B 511 187.566 199.947 186.758 1.00 79.28 C
ATOM 8662 O ARG B 511 187.319 200.242 187.932 1.00 79.28 O
ATOM 8663 CB ARG B 511 186.171 201.488 185.384 1.00 79.28 C
ATOM 8664 CG ARG B 511 185.301 200.384 184.830 1.00 79.28 C
ATOM 8665 CD ARG B 511 183.924 200.904 184.472 1.00 79.28 C
ATOM 8666 NE ARG B 511 183.167 201.309 185.650 1.00 79.28 N
ATOM 8667 CZ ARG B 511 182.063 202.046 185.605 1.00 79.28 C
ATOM 8668 NH1 ARG B 511 181.590 202.459 184.438 1.00 79.28 N
ATOM 8669 NH2 ARG B 511 181.432 202.370 186.725 1.00 79.28 N
ATOM 8670 N ARG B 512 187.802 198.693 186.370 1.00 66.54 N
ATOM 8671 CA ARG B 512 187.968 197.638 187.363 1.00 66.54 C
ATOM 8672 C ARG B 512 189.231 197.865 188.181 1.00 66.54 C
ATOM 8673 O ARG B 512 189.196 197.849 189.417 1.00 66.54 O
ATOM 8674 CB ARG B 512 188.015 196.272 186.681 1.00 66.54 C
ATOM 8675 CG ARG B 512 186.762 195.896 185.915 1.00 66.54 C
ATOM 8676 CD ARG B 512 185.592 195.637 186.843 1.00 66.54 C
ATOM 8677 NE ARG B 512 184.434 195.130 186.113 1.00 66.54 N
ATOM 8678 CZ ARG B 512 183.248 194.891 186.663 1.00 66.54 C
ATOM 8679 NH1 ARG B 512 183.056 195.119 187.954 1.00 66.54 N
ATOM 8680 NH2 ARG B 512 182.253 194.426 185.921 1.00 66.54 N
ATOM 8681 N THR B 513 190.362 198.077 187.503 1.00 60.54 N
ATOM 8682 CA THR B 513 191.622 198.298 188.203 1.00 60.54 C
ATOM 8683 C THR B 513 191.572 199.540 189.083 1.00 60.54 C
ATOM 8684 O THR B 513 192.227 199.582 190.129 1.00 60.54 O
ATOM 8685 CB THR B 513 192.768 198.401 187.198 1.00 60.54 C
ATOM 8686 OG1 THR B 513 192.872 197.174 186.466 1.00 60.54 O

ATOM 8687 CG2 THR B 513 194.078 198.667 187.913 1.00 60.54 C
ATOM 8688 N LEU B 514 190.801 200.554 188.691 1.00 63.67 N
ATOM 8689 CA LEU B 514 190.608 201.731 189.530 1.00 63.67 C
ATOM 8690 C LEU B 514 189.544 201.526 190.596 1.00 63.67 C
ATOM 8691 O LEU B 514 189.103 202.498 191.218 1.00 63.67 O
ATOM 8692 CB LEU B 514 190.263 202.951 188.673 1.00 63.67 C
ATOM 8693 CG LEU B 514 191.449 203.760 188.144 1.00 63.67 C
ATOM 8694 CD1 LEU B 514 192.215 204.386 189.296 1.00 63.67 C
ATOM 8695 CD2 LEU B 514 192.369 202.896 187.302 1.00 63.67 C
ATOM 8696 N GLU B 515 189.118 200.285 190.811 1.00 56.88 N
ATOM 8697 CA GLU B 515 188.296 199.929 191.956 1.00 56.88 C
ATOM 8698 C GLU B 515 188.874 198.780 192.759 1.00 56.88 C
ATOM 8699 O GLU B 515 188.618 198.709 193.967 1.00 56.88 O
ATOM 8700 CB GLU B 515 186.871 199.566 191.506 1.00 56.88 C
ATOM 8701 CG GLU B 515 185.849 199.465 192.631 1.00 56.88 C
ATOM 8702 CD GLU B 515 185.794 198.089 193.262 1.00 56.88 C
ATOM 8703 OE1 GLU B 515 186.089 197.102 192.558 1.00 56.88 O
ATOM 8704 OE2 GLU B 515 185.469 197.997 194.463 1.00 56.88 O
ATOM 8705 N VAL B 516 189.644 197.885 192.141 1.00 51.73 N
ATOM 8706 CA VAL B 516 190.379 196.887 192.902 1.00 51.73 C
ATOM 8707 C VAL B 516 191.518 197.518 193.687 1.00 51.73 C
ATOM 8708 O VAL B 516 191.876 197.014 194.757 1.00 51.73 O
ATOM 8709 CB VAL B 516 190.916 195.788 191.974 1.00 51.73 C
ATOM 8710 CG1 VAL B 516 191.769 194.810 192.753 1.00 51.73 C
ATOM 8711 CG2 VAL B 516 189.767 195.070 191.291 1.00 51.73 C
ATOM 8712 N PHE B 517 192.092 198.617 193.196 1.00 49.80 N
ATOM 8713 CA PHE B 517 193.081 199.344 193.978 1.00 49.80 C
ATOM 8714 C PHE B 517 192.446 200.160 195.089 1.00 49.80 C
ATOM 8715 O PHE B 517 193.130 200.503 196.056 1.00 49.80 O
ATOM 8716 CB PHE B 517 193.904 200.273 193.087 1.00 49.80 C
ATOM 8717 CG PHE B 517 194.853 199.558 192.177 1.00 49.80 C
ATOM 8718 CD1 PHE B 517 195.160 198.226 192.381 1.00 49.80 C
ATOM 8719 CD2 PHE B 517 195.444 200.223 191.119 1.00 49.80 C
ATOM 8720 CE1 PHE B 517 196.035 197.569 191.542 1.00 49.80 C

ATOM 8721 CE2 PHE B 517 196.319 199.571 190.279 1.00 49.80 C
ATOM 8722 CZ PHE B 517 196.615 198.243 190.490 1.00 49.80 C
ATOM 8723 N LYS B 518 191.158 200.475 194.980 1.00 54.69 N
ATOM 8724 CA LYS B 518 190.511 201.237 196.036 1.00 54.69 C
ATOM 8725 C LYS B 518 190.367 200.431 197.318 1.00 54.69 C
ATOM 8726 O LYS B 518 190.166 201.019 198.385 1.00 54.69 O
ATOM 8727 CB LYS B 518 189.145 201.722 195.565 1.00 54.69 C
ATOM 8728 CG LYS B 518 188.489 202.704 196.506 1.00 54.69 C
ATOM 8729 CD LYS B 518 187.141 203.121 195.967 1.00 54.69 C
ATOM 8730 CE LYS B 518 187.241 204.382 195.132 1.00 54.69 C
ATOM 8731 NZ LYS B 518 187.805 204.115 193.778 1.00 54.69 N
ATOM 8732 N GLU B 519 190.464 199.105 197.238 1.00 49.16 N
ATOM 8733 CA GLU B 519 190.449 198.237 198.407 1.00 49.16 C
ATOM 8734 C GLU B 519 191.837 197.751 198.795 1.00 49.16 C
ATOM 8735 O GLU B 519 192.194 197.794 199.975 1.00 49.16 O
ATOM 8736 CB GLU B 519 189.538 197.034 198.158 1.00 49.16 C
ATOM 8737 CG GLU B 519 188.081 197.405 197.965 1.00 49.16 C
ATOM 8738 CD GLU B 519 187.466 197.997 199.212 1.00 49.16 C
ATOM 8739 OE1 GLU B 519 187.905 197.626 200.320 1.00 49.16 O
ATOM 8740 OE2 GLU B 519 186.541 198.827 199.090 1.00 49.16 O
ATOM 8741 N LEU B 520 192.634 197.290 197.826 1.00 44.48 N
ATOM 8742 CA LEU B 520 194.011 196.903 198.113 1.00 44.48 C
ATOM 8743 C LEU B 520 194.841 198.060 198.651 1.00 44.48 C
ATOM 8744 O LEU B 520 195.832 197.822 199.349 1.00 44.48 O
ATOM 8745 CB LEU B 520 194.673 196.324 196.864 1.00 44.48 C
ATOM 8746 CG LEU B 520 194.404 194.843 196.612 1.00 44.48 C
ATOM 8747 CD1 LEU B 520 192.964 194.612 196.209 1.00 44.48 C
ATOM 8748 CD2 LEU B 520 195.348 194.316 195.549 1.00 44.48 C
ATOM 8749 N SER B 521 194.468 199.302 198.352 1.00 43.33 N
ATOM 8750 CA SER B 521 195.120 200.456 198.956 1.00 43.33 C
ATOM 8751 C SER B 521 194.770 200.615 200.424 1.00 43.33 C
ATOM 8752 O SER B 521 195.382 201.437 201.113 1.00 43.33 O
ATOM 8753 CB SER B 521 194.750 201.734 198.203 1.00 43.33 C
ATOM 8754 OG SER B 521 193.378 202.038 198.376 1.00 43.33 O

ATOM 8755 N LYS B 522 193.803 199.845 200.914 1.00 40.38 N
ATOM 8756 CA LYS B 522 193.425 199.861 202.313 1.00 40.38 C
ATOM 8757 C LYS B 522 194.162 198.819 203.135 1.00 40.38 C
ATOM 8758 O LYS B 522 194.223 198.953 204.361 1.00 40.38 O
ATOM 8759 CB LYS B 522 191.914 199.648 202.448 1.00 40.38 C
ATOM 8760 CG LYS B 522 191.379 199.837 203.841 1.00 40.38 C
ATOM 8761 CD LYS B 522 189.876 199.694 203.832 1.00 40.38 C
ATOM 8762 CE LYS B 522 189.209 201.043 203.635 1.00 40.38 C
ATOM 8763 NZ LYS B 522 189.271 201.486 202.214 1.00 40.38 N
ATOM 8764 N ILE B 523 194.722 197.793 202.501 1.00 40.35 N
ATOM 8765 CA ILE B 523 195.609 196.876 203.204 1.00 40.35 C
ATOM 8766 C ILE B 523 196.959 197.521 203.470 1.00 40.35 C
ATOM 8767 O ILE B 523 197.315 197.766 204.623 1.00 40.35 O
ATOM 8768 CB ILE B 523 195.767 195.567 202.408 1.00 40.35 C
ATOM 8769 CG1 ILE B 523 194.446 194.807 202.357 1.00 40.35 C
ATOM 8770 CG2 ILE B 523 196.852 194.706 203.017 1.00 40.35 C
ATOM 8771 CD1 ILE B 523 194.470 193.625 201.426 1.00 40.35 C
ATOM 8772 N ASN B 524 197.704 197.843 202.419 1.00 39.34 N
ATOM 8773 CA ASN B 524 198.999 198.491 202.567 1.00 39.34 C
ATOM 8774 C ASN B 524 199.114 199.627 201.560 1.00 39.34 C
ATOM 8775 O ASN B 524 199.399 199.387 200.380 1.00 39.34 O
ATOM 8776 CB ASN B 524 200.135 197.488 202.375 1.00 39.34 C
ATOM 8777 CG ASN B 524 201.479 198.052 202.779 1.00 39.34 C
ATOM 8778 OD1 ASN B 524 201.578 199.199 203.210 1.00 39.34 O
ATOM 8779 ND2 ASN B 524 202.525 197.248 202.639 1.00 39.34 N
ATOM 8780 N PRO B 525 198.895 200.873 201.984 1.00 35.39 N
ATOM 8781 CA PRO B 525 198.930 201.985 201.025 1.00 35.39 C
ATOM 8782 C PRO B 525 200.305 202.234 200.439 1.00 35.39 C
ATOM 8783 O PRO B 525 200.402 202.652 199.279 1.00 35.39 O
ATOM 8784 CB PRO B 525 198.457 203.181 201.861 1.00 35.39 C
ATOM 8785 CG PRO B 525 197.717 202.577 203.005 1.00 35.39 C
ATOM 8786 CD PRO B 525 198.433 201.304 203.309 1.00 35.39 C
ATOM 8787 N SER B 526 201.371 201.997 201.204 1.00 37.27 N
ATOM 8788 CA SER B 526 202.712 202.293 200.712 1.00 37.27 C

ATOM 8789 C SER B 526 203.082 201.403 199.534 1.00 37.27 C
ATOM 8790 O SER B 526 203.650 201.879 198.546 1.00 37.27 O
ATOM 8791 CB SER B 526 203.728 202.136 201.840 1.00 37.27 C
ATOM 8792 OG SER B 526 203.485 203.073 202.874 1.00 37.27 O
ATOM 8793 N ALA B 527 202.768 200.111 199.616 1.00 38.52 N
ATOM 8794 CA ALA B 527 203.147 199.194 198.548 1.00 38.52 C
ATOM 8795 C ALA B 527 202.334 199.450 197.286 1.00 38.52 C
ATOM 8796 O ALA B 527 202.885 199.507 196.182 1.00 38.52 O
ATOM 8797 CB ALA B 527 202.979 197.749 199.013 1.00 38.52 C
ATOM 8798 N ILE B 528 201.017 199.599 197.430 1.00 41.18 N
ATOM 8799 CA ILE B 528 200.160 199.807 196.266 1.00 41.18 C
ATOM 8800 C ILE B 528 200.476 201.139 195.601 1.00 41.18 C
ATOM 8801 O ILE B 528 200.772 201.202 194.402 1.00 41.18 O
ATOM 8802 CB ILE B 528 198.678 199.718 196.667 1.00 41.18 C
ATOM 8803 CG1 ILE B 528 198.374 198.342 197.253 1.00 41.18 C
ATOM 8804 CG2 ILE B 528 197.793 199.999 195.472 1.00 41.18 C
ATOM 8805 CD1 ILE B 528 198.616 197.211 196.286 1.00 41.18 C
ATOM 8806 N LEU B 529 200.412 202.226 196.370 1.00 41.60 N
ATOM 8807 CA LEU B 529 200.621 203.558 195.819 1.00 41.60 C
ATOM 8808 C LEU B 529 202.032 203.770 195.290 1.00 41.60 C
ATOM 8809 O LEU B 529 202.235 204.674 194.475 1.00 41.60 O
ATOM 8810 CB LEU B 529 200.302 204.610 196.879 1.00 41.60 C
ATOM 8811 CG LEU B 529 200.382 206.064 196.429 1.00 41.60 C
ATOM 8812 CD1 LEU B 529 199.365 206.322 195.339 1.00 41.60 C
ATOM 8813 CD2 LEU B 529 200.152 206.989 197.607 1.00 41.60 C
ATOM 8814 N SER B 530 203.005 202.974 195.725 1.00 42.20 N
ATOM 8815 CA SER B 530 204.363 203.061 195.210 1.00 42.20 C
ATOM 8816 C SER B 530 204.633 202.062 194.097 1.00 42.20 C
ATOM 8817 O SER B 530 205.751 202.023 193.577 1.00 42.20 O
ATOM 8818 CB SER B 530 205.376 202.855 196.339 1.00 42.20 C
ATOM 8819 OG SER B 530 206.702 202.886 195.843 1.00 42.20 O
ATOM 8820 N ALA B 531 203.645 201.254 193.725 1.00 45.96 N
ATOM 8821 CA ALA B 531 203.803 200.314 192.627 1.00 45.96 C
ATOM 8822 C ALA B 531 203.284 200.857 191.306 1.00 45.96 C

ATOM 8823 O ALA B 531 203.711 200.384 190.247 1.00 45.96 O
ATOM 8824 CB ALA B 531 203.091 198.998 192.948 1.00 45.96 C
ATOM 8825 N ILE B 532 202.376 201.835 191.341 1.00 53.01 N
ATOM 8826 CA ILE B 532 201.855 202.451 190.129 1.00 53.01 C
ATOM 8827 C ILE B 532 202.599 203.722 189.760 1.00 53.01 C
ATOM 8828 O ILE B 532 202.268 204.356 188.750 1.00 53.01 O
ATOM 8829 CB ILE B 532 200.348 202.739 190.262 1.00 53.01 C
ATOM 8830 CG1 ILE B 532 200.097 203.754 191.374 1.00 53.01 C
ATOM 8831 CG2 ILE B 532 199.591 201.458 190.549 1.00 53.01 C
ATOM 8832 CD1 ILE B 532 198.675 204.249 191.428 1.00 53.01 C
ATOM 8833 N TYR B 533 203.598 204.117 190.552 1.00 58.54 N
ATOM 8834 CA TYR B 533 204.432 205.268 190.245 1.00 58.54 C
ATOM 8835 C TYR B 533 205.890 204.911 190.008 1.00 58.54 C
ATOM 8836 O TYR B 533 206.623 205.730 189.446 1.00 58.54 O
ATOM 8837 CB TYR B 533 204.358 206.302 191.378 1.00 58.54 C
ATOM 8838 CG TYR B 533 203.025 207.002 191.494 1.00 58.54 C
ATOM 8839 CD1 TYR B 533 202.109 206.970 190.455 1.00 58.54 C
ATOM 8840 CD2 TYR B 533 202.682 207.693 192.645 1.00 58.54 C
ATOM 8841 CE1 TYR B 533 200.890 207.608 190.558 1.00 58.54 C
ATOM 8842 CE2 TYR B 533 201.464 208.330 192.759 1.00 58.54 C
ATOM 8843 CZ TYR B 533 200.574 208.288 191.712 1.00 58.54 C
ATOM 8844 OH TYR B 533 199.361 208.925 191.820 1.00 58.54 O
ATOM 8845 N ASN B 534 206.325 203.720 190.418 1.00 56.90 N
ATOM 8846 CA ASN B 534 207.707 203.277 190.248 1.00 56.90 C
ATOM 8847 C ASN B 534 208.674 204.198 190.995 1.00 56.90 C
ATOM 8848 O ASN B 534 209.565 204.820 190.416 1.00 56.90 O
ATOM 8849 CB ASN B 534 208.070 203.178 188.764 1.00 56.90 C
ATOM 8850 CG ASN B 534 207.282 202.102 188.044 1.00 56.90 C
ATOM 8851 OD1 ASN B 534 206.478 202.390 187.158 1.00 56.90 O
ATOM 8852 ND2 ASN B 534 207.511 200.851 188.424 1.00 56.90 N
ATOM 8853 N LYS B 535 208.476 204.271 192.313 1.00 54.24 N
ATOM 8854 CA LYS B 535 209.347 205.050 193.177 1.00 54.24 C
ATOM 8855 C LYS B 535 209.019 204.705 194.617 1.00 54.24 C
ATOM 8856 O LYS B 535 207.844 204.466 194.925 1.00 54.24 O

ATOM 8857 CB LYS B 535 209.171 206.553 192.940 1.00 54.24 C
ATOM 8858 CG LYS B 535 210.144 207.420 193.721 1.00 54.24 C
ATOM 8859 CD LYS B 535 209.883 208.899 193.486 1.00 54.24 C
ATOM 8860 CE LYS B 535 210.790 209.459 192.406 1.00 54.24 C
ATOM 8861 NZ LYS B 535 210.333 209.067 191.046 1.00 54.24 N
ATOM 8862 N PRO B 536 210.002 204.664 195.513 1.00 49.26 N
ATOM 8863 CA PRO B 536 209.695 204.390 196.923 1.00 49.26 C
ATOM 8864 C PRO B 536 208.955 205.545 197.574 1.00 49.26 C
ATOM 8865 O PRO B 536 209.509 206.638 197.726 1.00 49.26 O
ATOM 8866 CB PRO B 536 211.079 204.178 197.546 1.00 49.26 C
ATOM 8867 CG PRO B 536 212.002 204.948 196.670 1.00 49.26 C
ATOM 8868 CD PRO B 536 211.445 204.833 195.281 1.00 49.26 C
ATOM 8869 N ILE B 537 207.704 205.314 197.963 1.00 44.30 N
ATOM 8870 CA ILE B 537 206.839 206.349 198.511 1.00 44.30 C
ATOM 8871 C ILE B 537 206.250 205.859 199.824 1.00 44.30 C
ATOM 8872 O ILE B 537 205.908 204.679 199.960 1.00 44.30 O
ATOM 8873 CB ILE B 537 205.718 206.730 197.523 1.00 44.30 C
ATOM 8874 CG1 ILE B 537 206.306 207.376 196.271 1.00 44.30 C
ATOM 8875 CG2 ILE B 537 204.720 207.659 198.175 1.00 44.30 C
ATOM 8876 CD1 ILE B 537 205.300 207.567 195.164 1.00 44.30 C
ATOM 8877 N ALA B 538 206.129 206.766 200.788 1.00 40.67 N
ATOM 8878 CA ALA B 538 205.527 206.477 202.083 1.00 40.67 C
ATOM 8879 C ALA B 538 204.222 207.251 202.195 1.00 40.67 C
ATOM 8880 O ALA B 538 204.231 208.485 202.232 1.00 40.67 O
ATOM 8881 CB ALA B 538 206.472 206.849 203.224 1.00 40.67 C
ATOM 8882 N ALA B 539 203.109 206.529 202.249 1.00 39.15 N
ATOM 8883 CA ALA B 539 201.786 207.125 202.322 1.00 39.15 C
ATOM 8884 C ALA B 539 201.102 206.710 203.616 1.00 39.15 C
ATOM 8885 O ALA B 539 201.588 205.858 204.362 1.00 39.15 O
ATOM 8886 CB ALA B 539 200.932 206.721 201.116 1.00 39.15 C
ATOM 8887 N ARG B 540 199.953 207.328 203.876 1.00 39.33 N
ATOM 8888 CA ARG B 540 199.193 207.063 205.087 1.00 39.33 C
ATOM 8889 C ARG B 540 197.826 207.708 204.952 1.00 39.33 C
ATOM 8890 O ARG B 540 197.716 208.821 204.436 1.00 39.33 O

ATOM 8891 CB ARG B 540 199.912 207.608 206.326 1.00 39.33 C
ATOM 8892 CG ARG B 540 199.192 207.327 207.626 1.00 39.33 C
ATOM 8893 CD ARG B 540 199.951 207.893 208.811 1.00 39.33 C
ATOM 8894 NE ARG B 540 200.021 209.350 208.778 1.00 39.33 N
ATOM 8895 CZ ARG B 540 199.055 210.153 209.210 1.00 39.33 C
ATOM 8896 NH1 ARG B 540 199.204 211.467 209.146 1.00 39.33 N
ATOM 8897 NH2 ARG B 540 197.937 209.643 209.703 1.00 39.33 N
ATOM 8898 N PHE B 541 196.793 207.009 205.413 1.00 38.29 N
ATOM 8899 CA PHE B 541 195.455 207.579 205.367 1.00 38.29 C
ATOM 8900 C PHE B 541 195.372 208.803 206.264 1.00 38.29 C
ATOM 8901 O PHE B 541 196.025 208.879 207.307 1.00 38.29 O
ATOM 8902 CB PHE B 541 194.410 206.550 205.786 1.00 38.29 C
ATOM 8903 CG PHE B 541 194.195 205.469 204.779 1.00 38.29 C
ATOM 8904 CD1 PHE B 541 193.429 205.704 203.652 1.00 38.29 C
ATOM 8905 CD2 PHE B 541 194.750 204.218 204.957 1.00 38.29 C
ATOM 8906 CE1 PHE B 541 193.228 204.715 202.719 1.00 38.29 C
ATOM 8907 CE2 PHE B 541 194.550 203.222 204.028 1.00 38.29 C
ATOM 8908 CZ PHE B 541 193.788 203.471 202.906 1.00 38.29 C
ATOM 8909 N MET B 542 194.561 209.764 205.846 1.00 38.78 N
ATOM 8910 CA MET B 542 194.400 211.037 206.532 1.00 38.78 C
ATOM 8911 C MET B 542 192.919 211.355 206.667 1.00 38.78 C
ATOM 8912 O MET B 542 192.447 212.451 206.360 1.00 38.78 O
ATOM 8913 CB MET B 542 195.181 212.119 205.790 1.00 38.78 C
ATOM 8914 CG MET B 542 195.238 213.458 206.489 1.00 38.78 C
ATOM 8915 SD MET B 542 196.371 214.603 205.679 1.00 38.78 S
ATOM 8916 CE MET B 542 195.471 214.995 204.184 1.00 38.78 C
ATOM 8917 N GLY B 543 192.167 210.368 207.144 1.00 38.23 N
ATOM 8918 CA GLY B 543 190.719 210.417 207.184 1.00 38.23 C
ATOM 8919 C GLY B 543 190.078 209.765 205.977 1.00 38.23 C
ATOM 8920 O GLY B 543 189.530 208.665 206.089 1.00 38.23 O
ATOM 8921 N ASP B 544 190.147 210.417 204.817 1.00 39.09 N
ATOM 8922 CA ASP B 544 189.668 209.814 203.579 1.00 39.09 C
ATOM 8923 C ASP B 544 190.572 210.121 202.394 1.00 39.09 C
ATOM 8924 O ASP B 544 190.197 209.814 201.256 1.00 39.09 O

ATOM 8925 CB ASP B 544 188.245 210.279 203.253 1.00 39.09 C
ATOM 8926 CG ASP B 544 187.200 209.637 204.137 1.00 39.09 C
ATOM 8927 OD1 ASP B 544 187.390 208.473 204.541 1.00 39.09 O
ATOM 8928 OD2 ASP B 544 186.184 210.300 204.429 1.00 39.09 O
ATOM 8929 N VAL B 545 191.744 210.709 202.617 1.00 37.10 N
ATOM 8930 CA VAL B 545 192.598 211.189 201.539 1.00 37.10 C
ATOM 8931 C VAL B 545 194.035 210.820 201.873 1.00 37.10 C
ATOM 8932 O VAL B 545 194.543 211.200 202.933 1.00 37.10 O
ATOM 8933 CB VAL B 545 192.472 212.707 201.337 1.00 37.10 C
ATOM 8934 CG1 VAL B 545 193.431 213.171 200.266 1.00 37.10 C
ATOM 8935 CG2 VAL B 545 191.046 213.075 200.979 1.00 37.10 C
ATOM 8936 N LEU B 546 194.686 210.080 200.980 1.00 38.22 N
ATOM 8937 CA LEU B 546 196.064 209.674 201.210 1.00 38.22 C
ATOM 8938 C LEU B 546 196.981 210.888 201.286 1.00 38.22 C
ATOM 8939 O LEU B 546 196.758 211.908 200.630 1.00 38.22 O
ATOM 8940 CB LEU B 546 196.533 208.741 200.097 1.00 38.22 C
ATOM 8941 CG LEU B 546 195.828 207.393 199.997 1.00 38.22 C
ATOM 8942 CD1 LEU B 546 196.305 206.646 198.769 1.00 38.22 C
ATOM 8943 CD2 LEU B 546 196.075 206.578 201.247 1.00 38.22 C
ATOM 8944 N GLY B 547 198.028 210.768 202.097 1.00 38.02 N
ATOM 8945 CA GLY B 547 199.025 211.813 202.205 1.00 38.02 C
ATOM 8946 C GLY B 547 200.383 211.357 201.717 1.00 38.02 C
ATOM 8947 O GLY B 547 201.027 210.518 202.351 1.00 38.02 O
ATOM 8948 N LEU B 548 200.830 211.903 200.592 1.00 40.36 N
ATOM 8949 CA LEU B 548 202.086 211.474 200.002 1.00 40.36 C
ATOM 8950 C LEU B 548 203.273 212.069 200.751 1.00 40.36 C
ATOM 8951 O LEU B 548 203.197 213.146 201.345 1.00 40.36 O
ATOM 8952 CB LEU B 548 202.156 211.879 198.530 1.00 40.36 C
ATOM 8953 CG LEU B 548 201.492 210.966 197.503 1.00 40.36 C
ATOM 8954 CD1 LEU B 548 202.181 209.622 197.475 1.00 40.36 C
ATOM 8955 CD2 LEU B 548 200.020 210.804 197.803 1.00 40.36 C
ATOM 8956 N ALA B 549 204.384 211.341 200.716 1.00 41.55 N
ATOM 8957 CA ALA B 549 205.663 211.821 201.216 1.00 41.55 C
ATOM 8958 C ALA B 549 206.705 210.763 200.895 1.00 41.55 C

ATOM 8959 O ALA B 549 206.397 209.570 200.832 1.00 41.55 O
ATOM 8960 CB ALA B 549 205.627 212.101 202.719 1.00 41.55 C
ATOM 8961 N SER B 550 207.940 211.210 200.700 1.00 45.30 N
ATOM 8962 CA SER B 550 209.038 210.287 200.451 1.00 45.30 C
ATOM 8963 C SER B 550 209.577 209.799 201.794 1.00 45.30 C
ATOM 8964 O SER B 550 208.982 210.036 202.848 1.00 45.30 O
ATOM 8965 CB SER B 550 210.103 210.942 199.579 1.00 45.30 C
ATOM 8966 OG SER B 550 210.723 212.019 200.249 1.00 45.30 O
ATOM 8967 N CYS B 551 210.716 209.116 201.776 1.00 42.30 N
ATOM 8968 CA CYS B 551 211.181 208.356 202.928 1.00 42.30 C
ATOM 8969 C CYS B 551 212.457 208.953 203.499 1.00 42.30 C
ATOM 8970 O CYS B 551 213.294 209.475 202.756 1.00 42.30 O
ATOM 8971 CB CYS B 551 211.405 206.898 202.541 1.00 42.30 C
ATOM 8972 SG CYS B 551 209.888 206.071 202.044 1.00 42.30 S
ATOM 8973 N VAL B 552 212.596 208.874 204.824 1.00 36.88 N
ATOM 8974 CA VAL B 552 213.828 209.290 205.471 1.00 36.88 C
ATOM 8975 C VAL B 552 214.953 208.351 205.037 1.00 36.88 C
ATOM 8976 O VAL B 552 214.721 207.232 204.568 1.00 36.88 O
ATOM 8977 CB VAL B 552 213.656 209.279 206.999 1.00 36.88 C
ATOM 8978 CG1 VAL B 552 214.859 209.895 207.703 1.00 36.88 C
ATOM 8979 CG2 VAL B 552 212.363 209.962 207.406 1.00 36.88 C
ATOM 8980 N THR B 553 216.190 208.815 205.199 1.00 35.99 N
ATOM 8981 CA THR B 553 217.374 208.014 204.913 1.00 35.99 C
ATOM 8982 C THR B 553 218.258 207.990 206.151 1.00 35.99 C
ATOM 8983 O THR B 553 218.722 209.040 206.607 1.00 35.99 O
ATOM 8984 CB THR B 553 218.144 208.567 203.713 1.00 35.99 C
ATOM 8985 OG1 THR B 553 217.312 208.534 202.548 1.00 35.99 O
ATOM 8986 CG2 THR B 553 219.391 207.740 203.458 1.00 35.99 C
ATOM 8987 N ILE B 554 218.494 206.794 206.688 1.00 38.14 N
ATOM 8988 CA ILE B 554 219.296 206.621 207.895 1.00 38.14 C
ATOM 8989 C ILE B 554 220.759 206.686 207.475 1.00 38.14 C
ATOM 8990 O ILE B 554 221.061 206.704 206.278 1.00 38.14 O
ATOM 8991 CB ILE B 554 218.957 205.303 208.616 1.00 38.14 C
ATOM 8992 CG1 ILE B 554 217.453 205.191 208.824 1.00 38.14 C

ATOM 8993 CG2 ILE B 554 219.573 205.256 210.002 1.00 38.14 C
ATOM 8994 CD1 ILE B 554 216.754 204.445 207.732 1.00 38.14 C
ATOM 8995 N ASN B 555 221.671 206.735 208.455 1.00 46.13 N
ATOM 8996 CA ASN B 555 223.081 207.016 208.202 1.00 46.13 C
ATOM 8997 C ASN B 555 223.711 206.068 207.185 1.00 46.13 C
ATOM 8998 O ASN B 555 224.721 206.428 206.571 1.00 46.13 O
ATOM 8999 CB ASN B 555 223.879 206.942 209.504 1.00 46.13 C
ATOM 9000 CG ASN B 555 225.159 207.739 209.431 1.00 46.13 C
ATOM 9001 OD1 ASN B 555 225.368 208.478 208.470 1.00 46.13 O
ATOM 9002 ND2 ASN B 555 226.032 207.589 210.427 1.00 46.13 N
ATOM 9003 N GLN B 556 223.163 204.861 207.021 1.00 45.23 N
ATOM 9004 CA GLN B 556 223.559 203.913 205.981 1.00 45.23 C
ATOM 9005 C GLN B 556 224.900 203.243 206.260 1.00 45.23 C
ATOM 9006 O GLN B 556 225.324 202.367 205.501 1.00 45.23 O
ATOM 9007 CB GLN B 556 223.624 204.593 204.610 1.00 45.23 C
ATOM 9008 CG GLN B 556 222.312 205.147 204.100 1.00 45.23 C
ATOM 9009 CD GLN B 556 221.291 204.070 203.832 1.00 45.23 C
ATOM 9010 OE1 GLN B 556 221.622 202.990 203.347 1.00 45.23 O
ATOM 9011 NE2 GLN B 556 220.035 204.357 204.147 1.00 45.23 N
ATOM 9012 N THR B 557 225.579 203.639 207.336 1.00 48.34 N
ATOM 9013 CA THR B 557 226.903 203.097 207.609 1.00 48.34 C
ATOM 9014 C THR B 557 227.115 202.737 209.073 1.00 48.34 C
ATOM 9015 O THR B 557 228.252 202.443 209.462 1.00 48.34 O
ATOM 9016 CB THR B 557 227.986 204.084 207.173 1.00 48.34 C
ATOM 9017 OG1 THR B 557 229.272 203.474 207.321 1.00 48.34 O
ATOM 9018 CG2 THR B 557 227.928 205.336 208.025 1.00 48.34 C
ATOM 9019 N SER B 558 226.067 202.752 209.898 1.00 43.61 N
ATOM 9020 CA SER B 558 226.199 202.387 211.302 1.00 43.61 C
ATOM 9021 C SER B 558 225.032 201.525 211.760 1.00 43.61 C
ATOM 9022 O SER B 558 224.660 201.552 212.937 1.00 43.61 O
ATOM 9023 CB SER B 558 226.310 203.629 212.186 1.00 43.61 C
ATOM 9024 OG SER B 558 226.384 203.273 213.554 1.00 43.61 O
ATOM 9025 N VAL B 559 224.449 200.759 210.846 1.00 36.01 N
ATOM 9026 CA VAL B 559 223.331 199.871 211.140 1.00 36.01 C

ATOM 9027 C VAL B 559 223.865 198.462 211.334 1.00 36.01 C
ATOM 9028 O VAL B 559 224.727 198.003 210.575 1.00 36.01 O
ATOM 9029 CB VAL B 559 222.284 199.918 210.014 1.00 36.01 C
ATOM 9030 CG1 VAL B 559 221.203 198.891 210.260 1.00 36.01 C
ATOM 9031 CG2 VAL B 559 221.688 201.307 209.913 1.00 36.01 C
ATOM 9032 N LYS B 560 223.348 197.764 212.347 1.00 31.23 N
ATOM 9033 CA LYS B 560 223.871 196.451 212.739 1.00 31.23 C
ATOM 9034 C LYS B 560 222.694 195.542 213.084 1.00 31.23 C
ATOM 9035 O LYS B 560 222.163 195.594 214.195 1.00 31.23 O
ATOM 9036 CB LYS B 560 224.837 196.586 213.908 1.00 31.23 C
ATOM 9037 CG LYS B 560 226.109 197.339 213.569 1.00 31.23 C
ATOM 9038 CD LYS B 560 227.072 197.358 214.742 1.00 31.23 C
ATOM 9039 CE LYS B 560 226.593 198.316 215.820 1.00 31.23 C
ATOM 9040 NZ LYS B 560 227.581 198.468 216.924 1.00 31.23 N
ATOM 9041 N VAL B 561 222.296 194.705 212.128 1.00 28.26 N
ATOM 9042 CA VAL B 561 221.224 193.746 212.370 1.00 28.26 C
ATOM 9043 C VAL B 561 221.710 192.704 213.368 1.00 28.26 C
ATOM 9044 O VAL B 561 222.691 191.995 213.118 1.00 28.26 O
ATOM 9045 CB VAL B 561 220.770 193.089 211.063 1.00 28.26 C
ATOM 9046 CG1 VAL B 561 219.760 192.001 211.355 1.00 28.26 C
ATOM 9047 CG2 VAL B 561 220.181 194.125 210.131 1.00 28.26 C
ATOM 9048 N LEU B 562 221.020 192.601 214.499 1.00 29.09 N
ATOM 9049 CA LEU B 562 221.416 191.649 215.526 1.00 29.09 C
ATOM 9050 C LEU B 562 221.158 190.222 215.062 1.00 29.09 C
ATOM 9051 O LEU B 562 220.139 189.930 214.433 1.00 29.09 O
ATOM 9052 CB LEU B 562 220.662 191.921 216.825 1.00 29.09 C
ATOM 9053 CG LEU B 562 220.977 193.253 217.505 1.00 29.09 C
ATOM 9054 CD1 LEU B 562 220.112 193.446 218.735 1.00 29.09 C
ATOM 9055 CD2 LEU B 562 222.447 193.333 217.863 1.00 29.09 C
ATOM 9056 N ARG B 563 222.092 189.331 215.381 1.00 38.30 N
ATOM 9057 CA ARG B 563 221.994 187.923 214.999 1.00 38.30 C
ATOM 9058 C ARG B 563 221.309 187.094 216.081 1.00 38.30 C
ATOM 9059 O ARG B 563 221.800 186.053 216.510 1.00 38.30 O
ATOM 9060 CB ARG B 563 223.382 187.380 214.683 1.00 38.30 C

ATOM 9061 CG ARG B 563 224.329 187.356 215.870 1.00 38.30 C
ATOM 9062 CD ARG B 563 225.693 186.810 215.489 1.00 38.30 C
ATOM 9063 NE ARG B 563 226.386 187.680 214.544 1.00 38.30 N
ATOM 9064 CZ ARG B 563 226.615 187.371 213.273 1.00 38.30 C
ATOM 9065 NH1 ARG B 563 227.252 188.227 212.486 1.00 38.30 N
ATOM 9066 NH2 ARG B 563 226.212 186.205 212.789 1.00 38.30 N
ATOM 9067 N ASP B 564 220.141 187.551 216.519 1.00 41.11 N
ATOM 9068 CA ASP B 564 219.405 186.859 217.567 1.00 41.11 C
ATOM 9069 C ASP B 564 217.979 187.383 217.579 1.00 41.11 C
ATOM 9070 O ASP B 564 217.730 188.540 217.233 1.00 41.11 O
ATOM 9071 CB ASP B 564 220.066 187.058 218.935 1.00 41.11 C
ATOM 9072 CG ASP B 564 219.494 186.148 219.996 1.00 41.11 C
ATOM 9073 OD1 ASP B 564 218.571 185.369 219.681 1.00 41.11 O
ATOM 9074 OD2 ASP B 564 219.967 186.212 221.150 1.00 41.11 O
ATOM 9075 N MET B 565 217.048 186.520 217.980 1.00 39.34 N
ATOM 9076 CA MET B 565 215.639 186.877 217.993 1.00 39.34 C
ATOM 9077 C MET B 565 214.917 186.463 219.266 1.00 39.34 C
ATOM 9078 O MET B 565 213.710 186.699 219.373 1.00 39.34 O
ATOM 9079 CB MET B 565 214.923 186.265 216.781 1.00 39.34 C
ATOM 9080 CG MET B 565 215.363 186.850 215.454 1.00 39.34 C
ATOM 9081 SD MET B 565 214.588 186.051 214.038 1.00 39.34 S
ATOM 9082 CE MET B 565 212.905 186.629 214.200 1.00 39.34 C
ATOM 9083 N ASN B 566 215.606 185.850 220.223 1.00 41.66 N
ATOM 9084 CA ASN B 566 214.987 185.503 221.493 1.00 41.66 C
ATOM 9085 C ASN B 566 214.939 186.727 222.396 1.00 41.66 C
ATOM 9086 O ASN B 566 215.945 187.422 222.565 1.00 41.66 O
ATOM 9087 CB ASN B 566 215.760 184.377 222.175 1.00 41.66 C
ATOM 9088 CG ASN B 566 215.603 183.050 221.467 1.00 41.66 C
ATOM 9089 OD1 ASN B 566 214.510 182.688 221.039 1.00 41.66 O
ATOM 9090 ND2 ASN B 566 216.700 182.315 221.339 1.00 41.66 N
ATOM 9091 N VAL B 567 213.766 186.996 222.971 1.00 47.06 N
ATOM 9092 CA VAL B 567 213.653 188.079 223.940 1.00 47.06 C
ATOM 9093 C VAL B 567 214.500 187.729 225.152 1.00 47.06 C
ATOM 9094 O VAL B 567 214.336 186.661 225.754 1.00 47.06 O

ATOM 9095 CB VAL B 567 212.191 188.317 224.321 1.00 47.06 C
ATOM 9096 CG1 VAL B 567 212.101 189.369 225.407 1.00 47.06 C
ATOM 9097 CG2 VAL B 567 211.394 188.741 223.105 1.00 47.06 C
ATOM 9098 N LYS B 568 215.412 188.631 225.518 1.00 51.59 N
ATOM 9099 CA LYS B 568 216.442 188.292 226.494 1.00 51.59 C
ATOM 9100 C LYS B 568 215.867 188.021 227.878 1.00 51.59 C
ATOM 9101 O LYS B 568 216.486 187.304 228.672 1.00 51.59 O
ATOM 9102 CB LYS B 568 217.478 189.410 226.567 1.00 51.59 C
ATOM 9103 CG LYS B 568 218.627 189.119 227.513 1.00 51.59 C
ATOM 9104 CD LYS B 568 219.643 190.245 227.503 1.00 51.59 C
ATOM 9105 CE LYS B 568 220.833 189.918 228.386 1.00 51.59 C
ATOM 9106 NZ LYS B 568 220.451 189.875 229.823 1.00 51.59 N
ATOM 9107 N GLU B 569 214.699 188.575 228.192 1.00 54.77 N
ATOM 9108 CA GLU B 569 214.147 188.450 229.536 1.00 54.77 C
ATOM 9109 C GLU B 569 212.993 187.461 229.629 1.00 54.77 C
ATOM 9110 O GLU B 569 212.930 186.688 230.589 1.00 54.77 O
ATOM 9111 CB GLU B 569 213.692 189.821 230.050 1.00 54.77 C
ATOM 9112 CG GLU B 569 212.565 190.454 229.255 1.00 54.77 C
ATOM 9113 CD GLU B 569 212.198 191.830 229.768 1.00 54.77 C
ATOM 9114 OE1 GLU B 569 212.834 192.290 230.739 1.00 54.77 O
ATOM 9115 OE2 GLU B 569 211.278 192.453 229.199 1.00 54.77 O
ATOM 9116 N SER B 570 212.079 187.457 228.660 1.00 52.63 N
ATOM 9117 CA SER B 570 210.896 186.611 228.734 1.00 52.63 C
ATOM 9118 C SER B 570 211.218 185.230 228.181 1.00 52.63 C
ATOM 9119 O SER B 570 211.430 185.096 226.967 1.00 52.63 O
ATOM 9120 CB SER B 570 209.744 187.236 227.965 1.00 52.63 C
ATOM 9121 OG SER B 570 209.356 188.464 228.552 1.00 52.63 O
ATOM 9122 N PRO B 571 211.261 184.186 229.011 1.00 50.02 N
ATOM 9123 CA PRO B 571 211.514 182.831 228.501 1.00 50.02 C
ATOM 9124 C PRO B 571 210.304 182.326 227.731 1.00 50.02 C
ATOM 9125 O PRO B 571 209.181 182.341 228.238 1.00 50.02 O
ATOM 9126 CB PRO B 571 211.752 182.014 229.776 1.00 50.02 C
ATOM 9127 CG PRO B 571 210.975 182.738 230.818 1.00 50.02 C
ATOM 9128 CD PRO B 571 211.069 184.200 230.471 1.00 50.02 C

ATOM 9129 N GLY B 572 210.535 181.878 226.500 1.00 45.65 N
ATOM 9130 CA GLY B 572 209.455 181.399 225.663 1.00 45.65 C
ATOM 9131 C GLY B 572 208.732 182.541 224.984 1.00 45.65 C
ATOM 9132 O GLY B 572 207.501 182.557 224.909 1.00 45.65 O
ATOM 9133 N ARG B 573 209.496 183.508 224.485 1.00 45.56 N
ATOM 9134 CA ARG B 573 208.908 184.690 223.865 1.00 45.56 C
ATOM 9135 C ARG B 573 209.929 185.238 222.880 1.00 45.56 C
ATOM 9136 O ARG B 573 210.976 185.746 223.289 1.00 45.56 O
ATOM 9137 CB ARG B 573 208.529 185.717 224.922 1.00 45.56 C
ATOM 9138 CG ARG B 573 207.804 186.924 224.389 1.00 45.56 C
ATOM 9139 CD ARG B 573 206.533 186.497 223.693 1.00 45.56 C
ATOM 9140 NE ARG B 573 205.665 185.719 224.569 1.00 45.56 N
ATOM 9141 CZ ARG B 573 204.582 185.069 224.153 1.00 45.56 C
ATOM 9142 NH1 ARG B 573 204.229 185.126 222.879 1.00 45.56 N
ATOM 9143 NH2 ARG B 573 203.852 184.370 225.009 1.00 45.56 N
ATOM 9144 N CYS B 574 209.629 185.125 221.593 1.00 40.45 N
ATOM 9145 CA CYS B 574 210.596 185.376 220.541 1.00 40.45 C
ATOM 9146 C CYS B 574 210.107 186.516 219.658 1.00 40.45 C
ATOM 9147 O CYS B 574 208.903 186.712 219.479 1.00 40.45 O
ATOM 9148 CB CYS B 574 210.812 184.103 219.713 1.00 40.45 C
ATOM 9149 SG CYS B 574 211.366 182.662 220.688 1.00 40.45 S
ATOM 9150 N TYR B 575 211.050 187.280 219.109 1.00 36.47 N
ATOM 9151 CA TYR B 575 210.686 188.354 218.196 1.00 36.47 C
ATOM 9152 C TYR B 575 210.100 187.775 216.913 1.00 36.47 C
ATOM 9153 O TYR B 575 210.082 186.562 216.691 1.00 36.47 O
ATOM 9154 CB TYR B 575 211.889 189.232 217.862 1.00 36.47 C
ATOM 9155 CG TYR B 575 212.423 190.047 219.009 1.00 36.47 C
ATOM 9156 CD1 TYR B 575 211.742 191.160 219.468 1.00 36.47 C
ATOM 9157 CD2 TYR B 575 213.635 189.734 219.598 1.00 36.47 C
ATOM 9158 CE1 TYR B 575 212.233 191.913 220.507 1.00 36.47 C
ATOM 9159 CE2 TYR B 575 214.136 190.485 220.634 1.00 36.47 C
ATOM 9160 CZ TYR B 575 213.431 191.573 221.084 1.00 36.47 C
ATOM 9161 OH TYR B 575 213.925 192.327 222.119 1.00 36.47 O
ATOM 9162 N SER B 576 209.628 188.665 216.043 1.00 36.69 N

ATOM 9163 CA SER B 576 209.087 188.267 214.755 1.00 36.69 C
ATOM 9164 C SER B 576 209.882 188.800 213.575 1.00 36.69 C
ATOM 9165 O SER B 576 209.663 188.339 212.450 1.00 36.69 O
ATOM 9166 CB SER B 576 207.628 188.725 214.618 1.00 36.69 C
ATOM 9167 OG SER B 576 207.106 188.383 213.347 1.00 36.69 O
ATOM 9168 N ARG B 577 210.789 189.747 213.793 1.00 35.70 N
ATOM 9169 CA ARG B 577 211.659 190.266 212.750 1.00 35.70 C
ATOM 9170 C ARG B 577 212.959 190.706 213.397 1.00 35.70 C
ATOM 9171 O ARG B 577 212.969 191.059 214.582 1.00 35.70 O
ATOM 9172 CB ARG B 577 211.013 191.435 211.996 1.00 35.70 C
ATOM 9173 CG ARG B 577 209.817 191.030 211.166 1.00 35.70 C
ATOM 9174 CD ARG B 577 209.256 192.197 210.392 1.00 35.70 C
ATOM 9175 NE ARG B 577 208.064 191.814 209.647 1.00 35.70 N
ATOM 9176 CZ ARG B 577 208.088 191.286 208.428 1.00 35.70 C
ATOM 9177 NH1 ARG B 577 209.247 191.075 207.820 1.00 35.70 N
ATOM 9178 NH2 ARG B 577 206.956 190.966 207.819 1.00 35.70 N
ATOM 9179 N PRO B 578 214.066 190.687 212.660 1.00 30.57 N
ATOM 9180 CA PRO B 578 215.371 190.985 213.266 1.00 30.57 C
ATOM 9181 C PRO B 578 215.426 192.411 213.788 1.00 30.57 C
ATOM 9182 O PRO B 578 215.202 193.370 213.048 1.00 30.57 O
ATOM 9183 CB PRO B 578 216.350 190.772 212.107 1.00 30.57 C
ATOM 9184 CG PRO B 578 215.623 189.890 211.150 1.00 30.57 C
ATOM 9185 CD PRO B 578 214.189 190.292 211.251 1.00 30.57 C
ATOM 9186 N VAL B 579 215.733 192.549 215.077 1.00 29.33 N
ATOM 9187 CA VAL B 579 215.822 193.874 215.675 1.00 29.33 C
ATOM 9188 C VAL B 579 217.075 194.575 215.169 1.00 29.33 C
ATOM 9189 O VAL B 579 218.165 193.990 215.125 1.00 29.33 O
ATOM 9190 CB VAL B 579 215.808 193.775 217.208 1.00 29.33 C
ATOM 9191 CG1 VAL B 579 217.024 193.022 217.698 1.00 29.33 C
ATOM 9192 CG2 VAL B 579 215.750 195.158 217.825 1.00 29.33 C
ATOM 9193 N VAL B 580 216.922 195.838 214.779 1.00 27.29 N
ATOM 9194 CA VAL B 580 217.983 196.610 214.148 1.00 27.29 C
ATOM 9195 C VAL B 580 218.300 197.813 215.021 1.00 27.29 C
ATOM 9196 O VAL B 580 217.422 198.362 215.693 1.00 27.29 O

ATOM 9197 CB VAL B 580 217.576 197.057 212.727 1.00 27.29 C
ATOM 9198 CG1 VAL B 580 218.659 197.897 212.093 1.00 27.29 C
ATOM 9199 CG2 VAL B 580 217.256 195.855 211.868 1.00 27.29 C
ATOM 9200 N ILE B 581 219.561 198.226 215.008 1.00 30.13 N
ATOM 9201 CA ILE B 581 220.013 199.407 215.741 1.00 30.13 C
ATOM 9202 C ILE B 581 220.597 200.373 214.715 1.00 30.13 C
ATOM 9203 O ILE B 581 221.778 200.319 214.364 1.00 30.13 O
ATOM 9204 CB ILE B 581 221.015 199.063 216.846 1.00 30.13 C
ATOM 9205 CG1 ILE B 581 222.194 198.258 216.300 1.00 30.13 C
ATOM 9206 CG2 ILE B 581 220.338 198.281 217.945 1.00 30.13 C
ATOM 9207 CD1 ILE B 581 223.324 198.096 217.284 1.00 30.13 C
ATOM 9208 N PHE B 582 219.761 201.275 214.214 1.00 36.95 N
ATOM 9209 CA PHE B 582 220.198 202.279 213.259 1.00 36.95 C
ATOM 9210 C PHE B 582 220.573 203.558 214.003 1.00 36.95 C
ATOM 9211 O PHE B 582 220.682 203.580 215.231 1.00 36.95 O
ATOM 9212 CB PHE B 582 219.119 202.516 212.204 1.00 36.95 C
ATOM 9213 CG PHE B 582 217.835 203.048 212.757 1.00 36.95 C
ATOM 9214 CD1 PHE B 582 216.847 202.188 213.189 1.00 36.95 C
ATOM 9215 CD2 PHE B 582 217.607 204.407 212.833 1.00 36.95 C
ATOM 9216 CE1 PHE B 582 215.663 202.671 213.695 1.00 36.95 C
ATOM 9217 CE2 PHE B 582 216.425 204.895 213.339 1.00 36.95 C
ATOM 9218 CZ PHE B 582 215.451 204.025 213.770 1.00 36.95 C
ATOM 9219 N ASN B 583 220.779 204.642 213.261 1.00 42.97 N
ATOM 9220 CA ASN B 583 221.173 205.911 213.865 1.00 42.97 C
ATOM 9221 C ASN B 583 220.890 207.021 212.869 1.00 42.97 C
ATOM 9222 O ASN B 583 221.404 206.987 211.746 1.00 42.97 O
ATOM 9223 CB ASN B 583 222.648 205.889 214.250 1.00 42.97 C
ATOM 9224 CG ASN B 583 223.045 207.075 215.094 1.00 42.97 C
ATOM 9225 OD1 ASN B 583 222.229 207.947 215.385 1.00 42.97 O
ATOM 9226 ND2 ASN B 583 224.308 207.114 215.498 1.00 42.97 N
ATOM 9227 N PHE B 584 220.080 207.997 213.271 1.00 42.01 N
ATOM 9228 CA PHE B 584 219.749 209.100 212.383 1.00 42.01 C
ATOM 9229 C PHE B 584 220.993 209.915 212.047 1.00 42.01 C
ATOM 9230 O PHE B 584 222.035 209.810 212.697 1.00 42.01 O

ATOM 9231 CB PHE B 584 218.693 210.006 213.011 1.00 42.01 C
ATOM 9232 CG PHE B 584 217.332 209.388 213.084 1.00 42.01 C
ATOM 9233 CD1 PHE B 584 216.524 209.339 211.965 1.00 42.01 C
ATOM 9234 CD2 PHE B 584 216.852 208.870 214.271 1.00 42.01 C
ATOM 9235 CE1 PHE B 584 215.268 208.776 212.024 1.00 42.01 C
ATOM 9236 CE2 PHE B 584 215.595 208.306 214.334 1.00 42.01 C
ATOM 9237 CZ PHE B 584 214.803 208.260 213.208 1.00 42.01 C
ATOM 9238 N ALA B 585 220.870 210.735 211.006 1.00 43.91 N
ATOM 9239 CA ALA B 585 221.984 211.562 210.570 1.00 43.91 C
ATOM 9240 C ALA B 585 222.375 212.559 211.654 1.00 43.91 C
ATOM 9241 O ALA B 585 221.536 213.038 212.420 1.00 43.91 O
ATOM 9242 CB ALA B 585 221.625 212.300 209.282 1.00 43.91 C
ATOM 9243 N ASN B 586 223.679 212.838 211.733 1.00 51.56 N
ATOM 9244 CA ASN B 586 224.257 213.829 212.638 1.00 51.56 C
ATOM 9245 C ASN B 586 224.272 213.392 214.097 1.00 51.56 C
ATOM 9246 O ASN B 586 224.867 214.074 214.937 1.00 51.56 O
ATOM 9247 CB ASN B 586 223.497 215.154 212.568 1.00 51.56 C
ATOM 9248 CG ASN B 586 223.635 215.857 211.244 1.00 51.56 C
ATOM 9249 OD1 ASN B 586 222.670 215.963 210.491 1.00 51.56 O
ATOM 9250 ND2 ASN B 586 224.821 216.369 210.958 1.00 51.56 N
ATOM 9251 N SER B 587 223.637 212.274 214.420 1.00 50.71 N
ATOM 9252 CA SER B 587 223.356 211.947 215.808 1.00 50.71 C
ATOM 9253 C SER B 587 224.392 210.982 216.371 1.00 50.71 C
ATOM 9254 O SER B 587 225.235 210.432 215.659 1.00 50.71 O
ATOM 9255 CB SER B 587 221.949 211.359 215.944 1.00 50.71 C
ATOM 9256 OG SER B 587 221.853 210.109 215.289 1.00 50.71 O
ATOM 9257 N SER B 588 224.316 210.787 217.688 1.00 53.78 N
ATOM 9258 CA SER B 588 225.194 209.855 218.381 1.00 53.78 C
ATOM 9259 C SER B 588 224.437 209.053 219.431 1.00 53.78 C
ATOM 9260 O SER B 588 225.057 208.519 220.358 1.00 53.78 O
ATOM 9261 CB SER B 588 226.363 210.594 219.035 1.00 53.78 C
ATOM 9262 OG SER B 588 227.188 209.701 219.759 1.00 53.78 O
ATOM 9263 N TYR B 589 223.117 208.958 219.311 1.00 53.51 N
ATOM 9264 CA TYR B 589 222.263 208.292 220.290 1.00 53.51 C

ATOM 9265 C TYR B 589 221.535 207.169 219.560 1.00 53.51 C
ATOM 9266 O TYR B 589 220.641 207.424 218.748 1.00 53.51 O
ATOM 9267 CB TYR B 589 221.293 209.284 220.926 1.00 53.51 C
ATOM 9268 CG TYR B 589 221.962 210.326 221.801 1.00 53.51 C
ATOM 9269 CD1 TYR B 589 223.240 210.127 222.306 1.00 53.51 C
ATOM 9270 CD2 TYR B 589 221.324 211.520 222.102 1.00 53.51 C
ATOM 9271 CE1 TYR B 589 223.854 211.081 223.099 1.00 53.51 C
ATOM 9272 CE2 TYR B 589 221.928 212.480 222.889 1.00 53.51 C
ATOM 9273 CZ TYR B 589 223.193 212.256 223.386 1.00 53.51 C
ATOM 9274 OH TYR B 589 223.797 213.210 224.172 1.00 53.51 O
ATOM 9275 N VAL B 590 221.927 205.927 219.846 1.00 48.00 N
ATOM 9276 CA VAL B 590 221.425 204.786 219.093 1.00 48.00 C
ATOM 9277 C VAL B 590 219.946 204.570 219.380 1.00 48.00 C
ATOM 9278 O VAL B 590 219.407 205.037 220.391 1.00 48.00 O
ATOM 9279 CB VAL B 590 222.240 203.527 219.434 1.00 48.00 C
ATOM 9280 CG1 VAL B 590 223.696 203.726 219.058 1.00 48.00 C
ATOM 9281 CG2 VAL B 590 222.105 203.207 220.909 1.00 48.00 C
ATOM 9282 N GLN B 591 219.280 203.851 218.478 1.00 40.89 N
ATOM 9283 CA GLN B 591 217.876 203.508 218.669 1.00 40.89 C
ATOM 9284 C GLN B 591 217.628 202.038 218.365 1.00 40.89 C
ATOM 9285 O GLN B 591 218.575 201.262 218.210 1.00 40.89 O
ATOM 9286 CB GLN B 591 216.979 204.382 217.799 1.00 40.89 C
ATOM 9287 CG GLN B 591 217.000 205.838 218.185 1.00 40.89 C
ATOM 9288 CD GLN B 591 216.023 206.656 217.380 1.00 40.89 C
ATOM 9289 OE1 GLN B 591 215.338 206.137 216.501 1.00 40.89 O
ATOM 9290 NE2 GLN B 591 215.950 207.945 217.675 1.00 40.89 N
ATOM 9291 N TYR B 592 216.360 201.643 218.289 1.00 35.73 N
ATOM 9292 CA TYR B 592 216.002 200.253 218.045 1.00 35.73 C
ATOM 9293 C TYR B 592 214.805 200.194 217.114 1.00 35.73 C
ATOM 9294 O TYR B 592 213.797 200.864 217.349 1.00 35.73 O
ATOM 9295 CB TYR B 592 215.680 199.529 219.353 1.00 35.73 C
ATOM 9296 CG TYR B 592 216.869 199.387 220.263 1.00 35.73 C
ATOM 9297 CD1 TYR B 592 217.769 198.346 220.105 1.00 35.73 C
ATOM 9298 CD2 TYR B 592 217.103 200.310 221.266 1.00 35.73 C

ATOM 9299 CE1 TYR B 592 218.860 198.219 220.934 1.00 35.73 C
ATOM 9300 CE2 TYR B 592 218.190 200.194 222.097 1.00 35.73 C
ATOM 9301 CZ TYR B 592 219.067 199.149 221.928 1.00 35.73 C
ATOM 9302 OH TYR B 592 220.153 199.036 222.762 1.00 35.73 O
ATOM 9303 N GLY B 593 214.921 199.385 216.068 1.00 31.58 N
ATOM 9304 CA GLY B 593 213.829 199.191 215.136 1.00 31.58 C
ATOM 9305 C GLY B 593 213.989 197.857 214.446 1.00 31.58 C
ATOM 9306 O GLY B 593 215.094 197.318 214.339 1.00 31.58 O
ATOM 9307 N GLN B 594 212.869 197.326 213.973 1.00 30.72 N
ATOM 9308 CA GLN B 594 212.828 195.990 213.405 1.00 30.72 C
ATOM 9309 C GLN B 594 212.841 196.058 211.886 1.00 30.72 C
ATOM 9310 O GLN B 594 212.136 196.874 211.285 1.00 30.72 O
ATOM 9311 CB GLN B 594 211.594 195.237 213.888 1.00 30.72 C
ATOM 9312 CG GLN B 594 211.610 194.951 215.370 1.00 30.72 C
ATOM 9313 CD GLN B 594 210.373 194.226 215.813 1.00 30.72 C
ATOM 9314 OE1 GLN B 594 209.477 193.981 215.014 1.00 30.72 O
ATOM 9315 NE2 GLN B 594 210.307 193.880 217.090 1.00 30.72 N
ATOM 9316 N LEU B 595 213.654 195.199 211.277 1.00 33.25 N
ATOM 9317 CA LEU B 595 213.770 195.154 209.828 1.00 33.25 C
ATOM 9318 C LEU B 595 212.430 194.815 209.191 1.00 33.25 C
ATOM 9319 O LEU B 595 211.577 194.169 209.804 1.00 33.25 O
ATOM 9320 CB LEU B 595 214.819 194.123 209.420 1.00 33.25 C
ATOM 9321 CG LEU B 595 215.139 194.008 207.932 1.00 33.25 C
ATOM 9322 CD1 LEU B 595 215.759 195.295 207.432 1.00 33.25 C
ATOM 9323 CD2 LEU B 595 216.059 192.833 207.674 1.00 33.25 C
ATOM 9324 N GLY B 596 212.245 195.257 207.951 1.00 39.37 N
ATOM 9325 CA GLY B 596 210.999 195.028 207.249 1.00 39.37 C
ATOM 9326 C GLY B 596 211.189 194.463 205.859 1.00 39.37 C
ATOM 9327 O GLY B 596 212.273 193.980 205.521 1.00 39.37 O
ATOM 9328 N GLU B 597 210.142 194.517 205.042 1.00 49.63 N
ATOM 9329 CA GLU B 597 210.212 193.952 203.703 1.00 49.63 C
ATOM 9330 C GLU B 597 210.938 194.899 202.756 1.00 49.63 C
ATOM 9331 O GLU B 597 210.819 196.122 202.860 1.00 49.63 O
ATOM 9332 CB GLU B 597 208.808 193.661 203.172 1.00 49.63 C

ATOM 9333 CG GLU B 597 208.051 192.586 203.940 1.00 49.63 C
ATOM 9334 CD GLU B 597 207.315 193.136 205.150 1.00 49.63 C
ATOM 9335 OE1 GLU B 597 207.336 194.369 205.350 1.00 49.63 O
ATOM 9336 OE2 GLU B 597 206.715 192.336 205.901 1.00 49.63 O
ATOM 9337 N ASP B 598 211.695 194.320 201.826 1.00 51.47 N
ATOM 9338 CA ASP B 598 212.391 195.071 200.782 1.00 51.47 C
ATOM 9339 C ASP B 598 213.398 196.053 201.377 1.00 51.47 C
ATOM 9340 O ASP B 598 213.671 197.110 200.805 1.00 51.47 O
ATOM 9341 CB ASP B 598 211.396 195.793 199.869 1.00 51.47 C
ATOM 9342 CG ASP B 598 211.999 196.168 198.529 1.00 51.47 C
ATOM 9343 OD1 ASP B 598 213.198 195.894 198.320 1.00 51.47 O
ATOM 9344 OD2 ASP B 598 211.267 196.719 197.678 1.00 51.47 O
ATOM 9345 N ASN B 599 213.956 195.694 202.533 1.00 43.53 N
ATOM 9346 CA ASN B 599 215.048 196.420 203.180 1.00 43.53 C
ATOM 9347 C ASN B 599 214.642 197.857 203.525 1.00 43.53 C
ATOM 9348 O ASN B 599 215.176 198.833 202.997 1.00 43.53 O
ATOM 9349 CB ASN B 599 216.301 196.409 202.300 1.00 43.53 C
ATOM 9350 CG ASN B 599 217.569 196.542 203.106 1.00 43.53 C
ATOM 9351 OD1 ASN B 599 218.668 196.332 202.597 1.00 43.53 O
ATOM 9352 ND2 ASN B 599 217.421 196.852 204.386 1.00 43.53 N
ATOM 9353 N GLU B 600 213.682 197.958 204.441 1.00 39.70 N
ATOM 9354 CA GLU B 600 213.277 199.255 204.973 1.00 39.70 C
ATOM 9355 C GLU B 600 212.978 199.107 206.455 1.00 39.70 C
ATOM 9356 O GLU B 600 212.175 198.256 206.846 1.00 39.70 O
ATOM 9357 CB GLU B 600 212.071 199.814 204.211 1.00 39.70 C
ATOM 9358 CG GLU B 600 210.798 198.988 204.263 1.00 39.70 C
ATOM 9359 CD GLU B 600 209.889 199.391 205.403 1.00 39.70 C
ATOM 9360 OE1 GLU B 600 210.084 200.494 205.951 1.00 39.70 O
ATOM 9361 OE2 GLU B 600 208.974 198.613 205.743 1.00 39.70 O
ATOM 9362 N ILE B 601 213.646 199.917 207.278 1.00 33.11 N
ATOM 9363 CA ILE B 601 213.450 199.853 208.720 1.00 33.11 C
ATOM 9364 C ILE B 601 212.062 200.360 209.075 1.00 33.11 C
ATOM 9365 O ILE B 601 211.543 201.298 208.455 1.00 33.11 O
ATOM 9366 CB ILE B 601 214.534 200.665 209.449 1.00 33.11 C

ATOM 9367 CG1 ILE B 601 215.911 200.043 209.242 1.00 33.11 C
ATOM 9368 CG2 ILE B 601 214.224 200.772 210.927 1.00 33.11 C
ATOM 9369 CD1 ILE B 601 217.038 200.917 209.736 1.00 33.11 C
ATOM 9370 N LEU B 602 211.450 199.738 210.077 1.00 32.02 N
ATOM 9371 CA LEU B 602 210.197 200.200 210.651 1.00 32.02 C
ATOM 9372 C LEU B 602 210.378 200.375 212.152 1.00 32.02 C
ATOM 9373 O LEU B 602 211.014 199.548 212.810 1.00 32.02 O
ATOM 9374 CB LEU B 602 209.053 199.230 210.342 1.00 32.02 C
ATOM 9375 CG LEU B 602 209.195 197.769 210.766 1.00 32.02 C
ATOM 9376 CD1 LEU B 602 208.777 197.564 212.206 1.00 32.02 C
ATOM 9377 CD2 LEU B 602 208.379 196.880 209.845 1.00 32.02 C
ATOM 9378 N LEU B 603 209.810 201.451 212.685 1.00 33.04 N
ATOM 9379 CA LEU B 603 210.125 201.895 214.033 1.00 33.04 C
ATOM 9380 C LEU B 603 209.548 200.952 215.084 1.00 33.04 C
ATOM 9381 O LEU B 603 208.693 200.107 214.806 1.00 33.04 O
ATOM 9382 CB LEU B 603 209.589 203.307 214.256 1.00 33.04 C
ATOM 9383 CG LEU B 603 210.222 204.400 213.399 1.00 33.04 C
ATOM 9384 CD1 LEU B 603 209.464 205.701 213.556 1.00 33.04 C
ATOM 9385 CD2 LEU B 603 211.675 204.585 213.782 1.00 33.04 C
ATOM 9386 N GLY B 604 210.034 201.111 216.309 1.00 34.80 N
ATOM 9387 CA GLY B 604 209.522 200.382 217.448 1.00 34.80 C
ATOM 9388 C GLY B 604 210.151 199.008 217.601 1.00 34.80 C
ATOM 9389 O GLY B 604 210.682 198.420 216.662 1.00 34.80 O
ATOM 9390 N ASN B 605 210.097 198.496 218.835 1.00 37.02 N
ATOM 9391 CA ASN B 605 210.572 197.148 219.152 1.00 37.02 C
ATOM 9392 C ASN B 605 209.493 196.448 219.973 1.00 37.02 C
ATOM 9393 O ASN B 605 209.596 196.352 221.197 1.00 37.02 O
ATOM 9394 CB ASN B 605 211.889 197.233 219.910 1.00 37.02 C
ATOM 9395 CG ASN B 605 212.705 195.973 219.810 1.00 37.02 C
ATOM 9396 OD1 ASN B 605 213.888 195.965 220.146 1.00 37.02 O
ATOM 9397 ND2 ASN B 605 212.089 194.903 219.332 1.00 37.02 N
ATOM 9398 N HIS B 606 208.450 195.946 219.299 1.00 39.73 N
ATOM 9399 CA HIS B 606 207.426 195.218 220.042 1.00 39.73 C
ATOM 9400 C HIS B 606 206.741 194.095 219.265 1.00 39.73 C

ATOM 9401 O HIS B 606 205.639 193.693 219.655 1.00 39.73 O
ATOM 9402 CB HIS B 606 206.375 196.192 220.559 1.00 39.73 C
ATOM 9403 CG HIS B 606 205.644 196.916 219.477 1.00 39.73 C
ATOM 9404 ND1 HIS B 606 206.171 198.009 218.826 1.00 39.73 N
ATOM 9405 CD2 HIS B 606 204.421 196.710 218.936 1.00 39.73 C
ATOM 9406 CE1 HIS B 606 205.308 198.440 217.924 1.00 39.73 C
ATOM 9407 NE2 HIS B 606 204.235 197.672 217.975 1.00 39.73 N
ATOM 9408 N ARG B 607 207.330 193.575 218.192 1.00 35.41 N
ATOM 9409 CA ARG B 607 206.665 192.541 217.398 1.00 35.41 C
ATOM 9410 C ARG B 607 207.025 191.143 217.911 1.00 35.41 C
ATOM 9411 O ARG B 607 207.530 190.295 217.179 1.00 35.41 O
ATOM 9412 CB ARG B 607 207.031 192.680 215.925 1.00 35.41 C
ATOM 9413 CG ARG B 607 206.275 193.736 215.134 1.00 35.41 C
ATOM 9414 CD ARG B 607 206.779 195.142 215.418 1.00 35.41 C
ATOM 9415 NE ARG B 607 206.257 196.118 214.463 1.00 35.41 N
ATOM 9416 CZ ARG B 607 206.487 197.428 214.520 1.00 35.41 C
ATOM 9417 NH1 ARG B 607 207.240 197.926 215.486 1.00 35.41 N
ATOM 9418 NH2 ARG B 607 205.968 198.235 213.603 1.00 35.41 N
ATOM 9419 N THR B 608 206.756 190.906 219.193 1.00 38.07 N
ATOM 9420 CA THR B 608 207.070 189.617 219.791 1.00 38.07 C
ATOM 9421 C THR B 608 206.114 188.543 219.274 1.00 38.07 C
ATOM 9422 O THR B 608 205.184 188.815 218.513 1.00 38.07 O
ATOM 9423 CB THR B 608 207.021 189.707 221.315 1.00 38.07 C
ATOM 9424 OG1 THR B 608 205.712 190.106 221.732 1.00 38.07 O
ATOM 9425 CG2 THR B 608 208.038 190.713 221.820 1.00 38.07 C
ATOM 9426 N GLU B 609 206.353 187.301 219.687 1.00 43.05 N
ATOM 9427 CA GLU B 609 205.512 186.179 219.291 1.00 43.05 C
ATOM 9428 C GLU B 609 205.936 184.951 220.080 1.00 43.05 C
ATOM 9429 O GLU B 609 207.098 184.832 220.479 1.00 43.05 O
ATOM 9430 CB GLU B 609 205.613 185.892 217.789 1.00 43.05 C
ATOM 9431 CG GLU B 609 206.948 185.322 217.336 1.00 43.05 C
ATOM 9432 CD GLU B 609 207.005 185.072 215.836 1.00 43.05 C
ATOM 9433 OE1 GLU B 609 206.012 185.369 215.140 1.00 43.05 O
ATOM 9434 OE2 GLU B 609 208.044 184.575 215.352 1.00 43.05 O

ATOM 9435 N GLU B 610 204.990 184.039 220.289 1.00 46.18 N
ATOM 9436 CA GLU B 610 205.316 182.778 220.935 1.00 46.18 C
ATOM 9437 C GLU B 610 206.317 182.012 220.072 1.00 46.18 C
ATOM 9438 O GLU B 610 206.514 182.312 218.892 1.00 46.18 O
ATOM 9439 CB GLU B 610 204.045 181.963 221.180 1.00 46.18 C
ATOM 9440 CG GLU B 610 204.242 180.677 221.953 1.00 46.18 C
ATOM 9441 CD GLU B 610 204.719 180.920 223.369 1.00 46.18 C
ATOM 9442 OE1 GLU B 610 204.425 181.997 223.928 1.00 46.18 O
ATOM 9443 OE2 GLU B 610 205.397 180.031 223.922 1.00 46.18 O
ATOM 9444 N CYS B 611 206.982 181.035 220.679 1.00 46.93 N
ATOM 9445 CA CYS B 611 208.098 180.353 220.041 1.00 46.93 C
ATOM 9446 C CYS B 611 207.673 178.940 219.660 1.00 46.93 C
ATOM 9447 O CYS B 611 207.142 178.199 220.492 1.00 46.93 O
ATOM 9448 CB CYS B 611 209.308 180.337 220.974 1.00 46.93 C
ATOM 9449 SG CYS B 611 209.687 181.998 221.629 1.00 46.93 S
ATOM 9450 N GLN B 612 207.908 178.577 218.403 1.00 48.03 N
ATOM 9451 CA GLN B 612 207.367 177.367 217.793 1.00 48.03 C
ATOM 9452 C GLN B 612 208.462 176.593 217.073 1.00 48.03 C
ATOM 9453 O GLN B 612 208.372 176.318 215.874 1.00 48.03 O
ATOM 9454 CB GLN B 612 206.213 177.705 216.855 1.00 48.03 C
ATOM 9455 CG GLN B 612 204.967 178.170 217.573 1.00 48.03 C
ATOM 9456 CD GLN B 612 204.425 177.125 218.525 1.00 48.03 C
ATOM 9457 OE1 GLN B 612 204.447 177.303 219.742 1.00 48.03 O
ATOM 9458 NE2 GLN B 612 203.958 176.012 217.973 1.00 48.03 N
ATOM 9459 N LEU B 613 209.541 176.309 217.800 1.00 39.45 N
ATOM 9460 CA LEU B 613 210.620 175.455 217.322 1.00 39.45 C
ATOM 9461 C LEU B 613 210.055 174.198 216.662 1.00 39.45 C
ATOM 9462 O LEU B 613 209.113 173.596 217.192 1.00 39.45 O
ATOM 9463 CB LEU B 613 211.514 175.040 218.494 1.00 39.45 C
ATOM 9464 CG LEU B 613 212.599 175.947 219.072 1.00 39.45 C
ATOM 9465 CD1 LEU B 613 213.656 176.248 218.031 1.00 39.45 C
ATOM 9466 CD2 LEU B 613 212.008 177.224 219.640 1.00 39.45 C
ATOM 9467 N PRO B 614 210.595 173.769 215.511 1.00 37.44 N
ATOM 9468 CA PRO B 614 211.635 174.416 214.704 1.00 37.44 C

ATOM 9469 C PRO B 614 211.061 175.530 213.832 1.00 37.44 C
ATOM 9470 O PRO B 614 209.847 175.594 213.664 1.00 37.44 O
ATOM 9471 CB PRO B 614 212.166 173.274 213.831 1.00 37.44 C
ATOM 9472 CG PRO B 614 211.718 172.020 214.509 1.00 37.44 C
ATOM 9473 CD PRO B 614 210.397 172.371 215.104 1.00 37.44 C
ATOM 9474 N SER B 615 211.916 176.390 213.283 1.00 35.52 N
ATOM 9475 CA SER B 615 211.466 177.475 212.423 1.00 35.52 C
ATOM 9476 C SER B 615 212.517 177.740 211.358 1.00 35.52 C
ATOM 9477 O SER B 615 213.706 177.488 211.565 1.00 35.52 O
ATOM 9478 CB SER B 615 211.189 178.748 213.226 1.00 35.52 C
ATOM 9479 OG SER B 615 210.133 178.541 214.146 1.00 35.52 O
ATOM 9480 N LEU B 616 212.069 178.234 210.207 1.00 32.53 N
ATOM 9481 CA LEU B 616 212.951 178.463 209.066 1.00 32.53 C
ATOM 9482 C LEU B 616 212.637 179.813 208.429 1.00 32.53 C
ATOM 9483 O LEU B 616 212.427 179.929 207.223 1.00 32.53 O
ATOM 9484 CB LEU B 616 212.840 177.314 208.064 1.00 32.53 C
ATOM 9485 CG LEU B 616 213.920 177.153 206.989 1.00 32.53 C
ATOM 9486 CD1 LEU B 616 214.128 175.682 206.750 1.00 32.53 C
ATOM 9487 CD2 LEU B 616 213.562 177.808 205.671 1.00 32.53 C
ATOM 9488 N LYS B 617 212.567 180.855 209.250 1.00 34.48 N
ATOM 9489 CA LYS B 617 212.272 182.184 208.733 1.00 34.48 C
ATOM 9490 C LYS B 617 213.370 182.654 207.787 1.00 34.48 C
ATOM 9491 O LYS B 617 214.560 182.504 208.074 1.00 34.48 O
ATOM 9492 CB LYS B 617 212.115 183.168 209.886 1.00 34.48 C
ATOM 9493 CG LYS B 617 210.909 182.903 210.757 1.00 34.48 C
ATOM 9494 CD LYS B 617 210.770 183.962 211.828 1.00 34.48 C
ATOM 9495 CE LYS B 617 209.602 183.652 212.740 1.00 34.48 C
ATOM 9496 NZ LYS B 617 208.308 183.752 212.014 1.00 34.48 N
ATOM 9497 N ILE B 618 212.964 183.233 206.659 1.00 34.49 N
ATOM 9498 CA ILE B 618 213.880 183.713 205.626 1.00 34.49 C
ATOM 9499 C ILE B 618 213.415 185.103 205.211 1.00 34.49 C
ATOM 9500 O ILE B 618 212.388 185.245 204.540 1.00 34.49 O
ATOM 9501 CB ILE B 618 213.940 182.775 204.418 1.00 34.49 C
ATOM 9502 CG1 ILE B 618 214.618 181.460 204.795 1.00 34.49 C

ATOM 9503 CG2 ILE B 618 214.649 183.448 203.263 1.00 34.49 C
ATOM 9504 CD1 ILE B 618 214.497 180.392 203.738 1.00 34.49 C
ATOM 9505 N PHE B 619 214.170 186.127 205.593 1.00 34.15 N
ATOM 9506 CA PHE B 619 213.812 187.505 205.295 1.00 34.15 C
ATOM 9507 C PHE B 619 214.543 188.002 204.054 1.00 34.15 C
ATOM 9508 O PHE B 619 215.724 187.715 203.847 1.00 34.15 O
ATOM 9509 CB PHE B 619 214.134 188.404 206.486 1.00 34.15 C
ATOM 9510 CG PHE B 619 213.320 188.098 207.703 1.00 34.15 C
ATOM 9511 CD1 PHE B 619 212.033 188.578 207.825 1.00 34.15 C
ATOM 9512 CD2 PHE B 619 213.838 187.319 208.718 1.00 34.15 C
ATOM 9513 CE1 PHE B 619 211.279 188.295 208.940 1.00 34.15 C
ATOM 9514 CE2 PHE B 619 213.089 187.032 209.835 1.00 34.15 C
ATOM 9515 CZ PHE B 619 211.808 187.521 209.946 1.00 34.15 C
ATOM 9516 N ILE B 620 213.830 188.778 203.240 1.00 39.78 N
ATOM 9517 CA ILE B 620 214.319 189.240 201.946 1.00 39.78 C
ATOM 9518 C ILE B 620 214.914 190.632 202.106 1.00 39.78 C
ATOM 9519 O ILE B 620 214.444 191.439 202.915 1.00 39.78 O
ATOM 9520 CB ILE B 620 213.189 189.245 200.898 1.00 39.78 C
ATOM 9521 CG1 ILE B 620 213.761 189.342 199.487 1.00 39.78 C
ATOM 9522 CG2 ILE B 620 212.233 190.390 201.161 1.00 39.78 C
ATOM 9523 CD1 ILE B 620 214.521 188.111 199.065 1.00 39.78 C
ATOM 9524 N ALA B 621 215.962 190.915 201.325 1.00 42.95 N
ATOM 9525 CA ALA B 621 216.666 192.183 201.462 1.00 42.95 C
ATOM 9526 C ALA B 621 217.109 192.829 200.155 1.00 42.95 C
ATOM 9527 O ALA B 621 217.788 193.858 200.212 1.00 42.95 O
ATOM 9528 CB ALA B 621 217.894 192.012 202.369 1.00 42.95 C
ATOM 9529 N GLY B 622 216.763 192.277 198.991 1.00 49.91 N
ATOM 9530 CA GLY B 622 217.082 192.949 197.743 1.00 49.91 C
ATOM 9531 C GLY B 622 218.565 193.133 197.480 1.00 49.91 C
ATOM 9532 O GLY B 622 219.077 194.251 197.592 1.00 49.91 O
ATOM 9533 N ASN B 623 219.268 192.058 197.138 1.00 50.08 N
ATOM 9534 CA ASN B 623 218.629 190.812 196.745 1.00 50.08 C
ATOM 9535 C ASN B 623 218.988 189.639 197.646 1.00 50.08 C
ATOM 9536 O ASN B 623 218.286 188.635 197.671 1.00 50.08 O

ATOM 9537 CB ASN B 623 218.992 190.482 195.297 1.00 50.08 C
ATOM 9538 CG ASN B 623 220.489 190.378 195.080 1.00 50.08 C
ATOM 9539 OD1 ASN B 623 221.277 190.485 196.019 1.00 50.08 O
ATOM 9540 ND2 ASN B 623 220.888 190.161 193.834 1.00 50.08 N
ATOM 9541 N SER B 624 220.092 189.759 198.375 1.00 43.59 N
ATOM 9542 CA SER B 624 220.436 188.734 199.348 1.00 43.59 C
ATOM 9543 C SER B 624 219.367 188.675 200.430 1.00 43.59 C
ATOM 9544 O SER B 624 218.697 189.669 200.718 1.00 43.59 O
ATOM 9545 CB SER B 624 221.804 189.022 199.961 1.00 43.59 C
ATOM 9546 OG SER B 624 222.818 188.962 198.975 1.00 43.59 O
ATOM 9547 N ALA B 625 219.198 187.499 201.025 1.00 38.84 N
ATOM 9548 CA ALA B 625 218.186 187.283 202.047 1.00 38.84 C
ATOM 9549 C ALA B 625 218.811 186.591 203.246 1.00 38.84 C
ATOM 9550 O ALA B 625 219.571 185.631 203.087 1.00 38.84 O
ATOM 9551 CB ALA B 625 217.025 186.448 201.510 1.00 38.84 C
ATOM 9552 N TYR B 626 218.494 187.085 204.438 1.00 36.36 N
ATOM 9553 CA TYR B 626 218.932 186.434 205.658 1.00 36.36 C
ATOM 9554 C TYR B 626 218.195 185.109 205.825 1.00 36.36 C
ATOM 9555 O TYR B 626 217.207 184.825 205.147 1.00 36.36 O
ATOM 9556 CB TYR B 626 218.679 187.343 206.857 1.00 36.36 C
ATOM 9557 CG TYR B 626 219.426 188.652 206.784 1.00 36.36 C
ATOM 9558 CD1 TYR B 626 220.734 188.759 207.227 1.00 36.36 C
ATOM 9559 CD2 TYR B 626 218.826 189.776 206.242 1.00 36.36 C
ATOM 9560 CE1 TYR B 626 221.414 189.955 207.151 1.00 36.36 C
ATOM 9561 CE2 TYR B 626 219.496 190.972 206.159 1.00 36.36 C
ATOM 9562 CZ TYR B 626 220.789 191.058 206.614 1.00 36.36 C
ATOM 9563 OH TYR B 626 221.460 192.253 206.532 1.00 36.36 O
ATOM 9564 N GLU B 627 218.683 184.290 206.753 1.00 37.95 N
ATOM 9565 CA GLU B 627 218.062 182.992 207.009 1.00 37.95 C
ATOM 9566 C GLU B 627 218.305 182.632 208.470 1.00 37.95 C
ATOM 9567 O GLU B 627 219.428 182.286 208.846 1.00 37.95 O
ATOM 9568 CB GLU B 627 218.611 181.919 206.083 1.00 37.95 C
ATOM 9569 CG GLU B 627 217.943 180.574 206.285 1.00 37.95 C
ATOM 9570 CD GLU B 627 218.504 179.493 205.388 1.00 37.95 C

ATOM 9571 OE1 GLU B 627 219.458 179.776 204.637 1.00 37.95 O
ATOM 9572 OE2 GLU B 627 217.989 178.357 205.435 1.00 37.95 O
ATOM 9573 N TYR B 628 217.257 182.713 209.278 1.00 32.92 N
ATOM 9574 CA TYR B 628 217.324 182.283 210.664 1.00 32.92 C
ATOM 9575 C TYR B 628 216.777 180.869 210.798 1.00 32.92 C
ATOM 9576 O TYR B 628 215.797 180.499 210.149 1.00 32.92 O
ATOM 9577 CB TYR B 628 216.536 183.235 211.559 1.00 32.92 C
ATOM 9578 CG TYR B 628 217.129 184.619 211.643 1.00 32.92 C
ATOM 9579 CD1 TYR B 628 218.160 184.901 212.524 1.00 32.92 C
ATOM 9580 CD2 TYR B 628 216.666 185.640 210.831 1.00 32.92 C
ATOM 9581 CE1 TYR B 628 218.704 186.163 212.600 1.00 32.92 C
ATOM 9582 CE2 TYR B 628 217.205 186.903 210.899 1.00 32.92 C
ATOM 9583 CZ TYR B 628 218.223 187.159 211.784 1.00 32.92 C
ATOM 9584 OH TYR B 628 218.761 188.419 211.853 1.00 32.92 O
ATOM 9585 N VAL B 629 217.420 180.080 211.655 1.00 32.47 N
ATOM 9586 CA VAL B 629 217.025 178.696 211.893 1.00 32.47 C
ATOM 9587 C VAL B 629 216.963 178.482 213.396 1.00 32.47 C
ATOM 9588 O VAL B 629 217.983 178.595 214.084 1.00 32.47 O
ATOM 9589 CB VAL B 629 217.994 177.690 211.251 1.00 32.47 C
ATOM 9590 CG1 VAL B 629 217.591 176.276 211.613 1.00 32.47 C
ATOM 9591 CG2 VAL B 629 218.018 177.873 209.750 1.00 32.47 C
ATOM 9592 N ASP B 630 215.774 178.168 213.906 1.00 36.88 N
ATOM 9593 CA ASP B 630 215.535 178.097 215.344 1.00 36.88 C
ATOM 9594 C ASP B 630 215.849 179.423 216.024 1.00 36.88 C
ATOM 9595 O ASP B 630 216.301 179.454 217.170 1.00 36.88 O
ATOM 9596 CB ASP B 630 216.333 176.964 215.992 1.00 36.88 C
ATOM 9597 CG ASP B 630 215.821 175.596 215.599 1.00 36.88 C
ATOM 9598 OD1 ASP B 630 214.619 175.482 215.285 1.00 36.88 O
ATOM 9599 OD2 ASP B 630 216.615 174.632 215.614 1.00 36.88 O
ATOM 9600 N TYR B 631 215.613 180.528 215.315 1.00 38.06 N
ATOM 9601 CA TYR B 631 215.773 181.868 215.873 1.00 38.06 C
ATOM 9602 C TYR B 631 217.240 182.164 216.192 1.00 38.06 C
ATOM 9603 O TYR B 631 217.582 182.627 217.280 1.00 38.06 O
ATOM 9604 CB TYR B 631 214.886 182.033 217.107 1.00 38.06 C

ATOM 9605 CG TYR B 631 213.413 182.017 216.774 1.00 38.06 C
ATOM 9606 CD1 TYR B 631 212.966 182.338 215.503 1.00 38.06 C
ATOM 9607 CD2 TYR B 631 212.476 181.631 217.714 1.00 38.06 C
ATOM 9608 CE1 TYR B 631 211.622 182.317 215.193 1.00 38.06 C
ATOM 9609 CE2 TYR B 631 211.129 181.604 217.415 1.00 38.06 C
ATOM 9610 CZ TYR B 631 210.707 181.946 216.153 1.00 38.06 C
ATOM 9611 OH TYR B 631 209.367 181.918 215.848 1.00 38.06 O
ATOM 9612 N LEU B 632 218.107 181.890 215.220 1.00 37.43 N
ATOM 9613 CA LEU B 632 219.525 182.215 215.293 1.00 37.43 C
ATOM 9614 C LEU B 632 220.044 182.353 213.871 1.00 37.43 C
ATOM 9615 O LEU B 632 219.755 181.503 213.025 1.00 37.43 O
ATOM 9616 CB LEU B 632 220.316 181.142 216.047 1.00 37.43 C
ATOM 9617 CG LEU B 632 220.067 181.009 217.548 1.00 37.43 C
ATOM 9618 CD1 LEU B 632 220.813 179.814 218.115 1.00 37.43 C
ATOM 9619 CD2 LEU B 632 220.483 182.284 218.255 1.00 37.43 C
ATOM 9620 N PHE B 633 220.795 183.420 213.611 1.00 36.83 N
ATOM 9621 CA PHE B 633 221.289 183.677 212.265 1.00 36.83 C
ATOM 9622 C PHE B 633 222.211 182.558 211.800 1.00 36.83 C
ATOM 9623 O PHE B 633 223.064 182.080 212.551 1.00 36.83 O
ATOM 9624 CB PHE B 633 222.020 185.016 212.221 1.00 36.83 C
ATOM 9625 CG PHE B 633 222.593 185.348 210.878 1.00 36.83 C
ATOM 9626 CD1 PHE B 633 221.774 185.727 209.835 1.00 36.83 C
ATOM 9627 CD2 PHE B 633 223.956 185.292 210.664 1.00 36.83 C
ATOM 9628 CE1 PHE B 633 222.302 186.034 208.602 1.00 36.83 C
ATOM 9629 CE2 PHE B 633 224.489 185.599 209.433 1.00 36.83 C
ATOM 9630 CZ PHE B 633 223.660 185.970 208.401 1.00 36.83 C
ATOM 9631 N LYS B 634 222.030 182.136 210.548 1.00 37.64 N
ATOM 9632 CA LYS B 634 222.784 181.016 209.997 1.00 37.64 C
ATOM 9633 C LYS B 634 223.705 181.430 208.857 1.00 37.64 C
ATOM 9634 O LYS B 634 224.920 181.232 208.954 1.00 37.64 O
ATOM 9635 CB LYS B 634 221.809 179.929 209.530 1.00 37.64 C
ATOM 9636 CG LYS B 634 222.481 178.691 208.977 1.00 37.64 C
ATOM 9637 CD LYS B 634 223.319 178.007 210.039 1.00 37.64 C
ATOM 9638 CE LYS B 634 222.451 177.466 211.162 1.00 37.64 C

ATOM 9639 NZ LYS B 634 221.601 176.331 210.711 1.00 37.64 N
ATOM 9640 N ARG B 635 223.174 181.999 207.780 1.00 41.14 N
ATOM 9641 CA ARG B 635 224.008 182.375 206.644 1.00 41.14 C
ATOM 9642 C ARG B 635 223.209 183.303 205.733 1.00 41.14 C
ATOM 9643 O ARG B 635 222.146 183.803 206.118 1.00 41.14 O
ATOM 9644 CB ARG B 635 224.516 181.125 205.908 1.00 41.14 C
ATOM 9645 CG ARG B 635 223.436 180.345 205.191 1.00 41.14 C
ATOM 9646 CD ARG B 635 224.000 179.078 204.574 1.00 41.14 C
ATOM 9647 NE ARG B 635 222.992 178.353 203.808 1.00 41.14 N
ATOM 9648 CZ ARG B 635 222.151 177.469 204.333 1.00 41.14 C
ATOM 9649 NH1 ARG B 635 222.195 177.199 205.630 1.00 41.14 N
ATOM 9650 NH2 ARG B 635 221.264 176.856 203.562 1.00 41.14 N
ATOM 9651 N MET B 636 223.724 183.532 204.528 1.00 40.64 N
ATOM 9652 CA MET B 636 223.101 184.401 203.539 1.00 40.64 C
ATOM 9653 C MET B 636 222.759 183.593 202.296 1.00 40.64 C
ATOM 9654 O MET B 636 223.595 182.834 201.796 1.00 40.64 O
ATOM 9655 CB MET B 636 224.031 185.557 203.167 1.00 40.64 C
ATOM 9656 CG MET B 636 224.324 186.518 204.301 1.00 40.64 C
ATOM 9657 SD MET B 636 222.856 187.386 204.866 1.00 40.64 S
ATOM 9658 CE MET B 636 222.535 188.431 203.450 1.00 40.64 C
ATOM 9659 N ILE B 637 221.534 183.753 201.805 1.00 45.08 N
ATOM 9660 CA ILE B 637 221.101 183.163 200.545 1.00 45.08 C
ATOM 9661 C ILE B 637 221.088 184.255 199.487 1.00 45.08 C
ATOM 9662 O ILE B 637 220.813 185.424 199.778 1.00 45.08 O
ATOM 9663 CB ILE B 637 219.716 182.497 200.685 1.00 45.08 C
ATOM 9664 CG1 ILE B 637 219.781 181.343 201.682 1.00 45.08 C
ATOM 9665 CG2 ILE B 637 219.210 182.000 199.343 1.00 45.08 C
ATOM 9666 CD1 ILE B 637 218.427 180.807 202.065 1.00 45.08 C
ATOM 9667 N ASP B 638 221.383 183.877 198.244 1.00 52.48 N
ATOM 9668 CA ASP B 638 221.500 184.825 197.143 1.00 52.48 C
ATOM 9669 C ASP B 638 220.250 184.864 196.266 1.00 52.48 C
ATOM 9670 O ASP B 638 220.297 185.356 195.136 1.00 52.48 O
ATOM 9671 CB ASP B 638 222.734 184.506 196.303 1.00 52.48 C
ATOM 9672 CG ASP B 638 222.715 183.094 195.752 1.00 52.48 C

ATOM 9673 OD1 ASP B 638 221.779 182.335 196.080 1.00 52.48 O
ATOM 9674 OD2 ASP B 638 223.639 182.741 194.990 1.00 52.48 O
ATOM 9675 N LEU B 639 219.125 184.366 196.778 1.00 52.10 N
ATOM 9676 CA LEU B 639 217.853 184.380 196.053 1.00 52.10 C
ATOM 9677 C LEU B 639 217.956 183.656 194.713 1.00 52.10 C
ATOM 9678 O LEU B 639 217.466 184.124 193.685 1.00 52.10 O
ATOM 9679 CB LEU B 639 217.341 185.809 195.864 1.00 52.10 C
ATOM 9680 CG LEU B 639 216.397 186.299 196.959 1.00 52.10 C
ATOM 9681 CD1 LEU B 639 215.101 185.528 196.888 1.00 52.10 C
ATOM 9682 CD2 LEU B 639 217.027 186.094 198.310 1.00 52.10 C
ATOM 9683 N SER B 640 218.605 182.504 194.732 1.00 52.75 N
ATOM 9684 CA SER B 640 218.576 181.590 193.600 1.00 52.75 C
ATOM 9685 C SER B 640 217.809 180.318 193.906 1.00 52.75 C
ATOM 9686 O SER B 640 217.188 179.744 193.008 1.00 52.75 O
ATOM 9687 CB SER B 640 220.001 181.233 193.157 1.00 52.75 C
ATOM 9688 OG SER B 640 219.975 180.335 192.061 1.00 52.75 O
ATOM 9689 N SER B 641 217.837 179.865 195.159 1.00 53.51 N
ATOM 9690 CA SER B 641 217.087 178.674 195.538 1.00 53.51 C
ATOM 9691 C SER B 641 215.586 178.907 195.436 1.00 53.51 C
ATOM 9692 O SER B 641 214.852 178.049 194.932 1.00 53.51 O
ATOM 9693 CB SER B 641 217.471 178.251 196.955 1.00 53.51 C
ATOM 9694 OG SER B 641 216.703 177.144 197.386 1.00 53.51 O
ATOM 9695 N ILE B 642 215.109 180.058 195.907 1.00 49.87 N
ATOM 9696 CA ILE B 642 213.679 180.335 195.897 1.00 49.87 C
ATOM 9697 C ILE B 642 213.204 180.498 194.461 1.00 49.87 C
ATOM 9698 O ILE B 642 213.752 181.299 193.694 1.00 49.87 O
ATOM 9699 CB ILE B 642 213.365 181.581 196.735 1.00 49.87 C
ATOM 9700 CG1 ILE B 642 213.725 181.342 198.202 1.00 49.87 C
ATOM 9701 CG2 ILE B 642 211.902 181.950 196.605 1.00 49.87 C
ATOM 9702 CD1 ILE B 642 215.141 181.718 198.555 1.00 49.87 C
ATOM 9703 N SER B 643 212.178 179.739 194.091 1.00 54.86 N
ATOM 9704 CA SER B 643 211.640 179.746 192.738 1.00 54.86 C
ATOM 9705 C SER B 643 210.446 180.686 192.666 1.00 54.86 C
ATOM 9706 O SER B 643 209.509 180.568 193.461 1.00 54.86 O

ATOM 9707 CB SER B 643 211.228 178.338 192.310 1.00 54.86 C
ATOM 9708 OG SER B 643 212.349 177.474 192.260 1.00 54.86 O
ATOM 9709 N THR B 644 210.485 181.616 191.715 1.00 63.09 N
ATOM 9710 CA THR B 644 209.395 182.568 191.557 1.00 63.09 C
ATOM 9711 C THR B 644 208.110 181.839 191.177 1.00 63.09 C
ATOM 9712 O THR B 644 208.134 180.783 190.539 1.00 63.09 O
ATOM 9713 CB THR B 644 209.754 183.610 190.498 1.00 63.09 C
ATOM 9714 OG1 THR B 644 210.993 184.236 190.850 1.00 63.09 O
ATOM 9715 CG2 THR B 644 208.685 184.679 190.421 1.00 63.09 C
ATOM 9716 N VAL B 645 206.975 182.414 191.580 1.00 67.46 N
ATOM 9717 CA VAL B 645 205.697 181.731 191.410 1.00 67.46 C
ATOM 9718 C VAL B 645 205.335 181.577 189.938 1.00 67.46 C
ATOM 9719 O VAL B 645 204.771 180.551 189.539 1.00 67.46 O
ATOM 9720 CB VAL B 645 204.589 182.466 192.185 1.00 67.46 C
ATOM 9721 CG1 VAL B 645 204.382 183.860 191.625 1.00 67.46 C
ATOM 9722 CG2 VAL B 645 203.299 181.672 192.128 1.00 67.46 C
ATOM 9723 N ASP B 646 205.639 182.574 189.106 1.00 76.56 N
ATOM 9724 CA ASP B 646 205.327 182.504 187.685 1.00 76.56 C
ATOM 9725 C ASP B 646 206.415 181.804 186.878 1.00 76.56 C
ATOM 9726 O ASP B 646 206.377 181.836 185.643 1.00 76.56 O
ATOM 9727 CB ASP B 646 205.058 183.905 187.126 1.00 76.56 C
ATOM 9728 CG ASP B 646 206.246 184.836 187.266 1.00 76.56 C
ATOM 9729 OD1 ASP B 646 207.267 184.429 187.853 1.00 76.56 O
ATOM 9730 OD2 ASP B 646 206.157 185.985 186.786 1.00 76.56 O
ATOM 9731 N SER B 647 207.379 181.174 187.547 1.00 81.51 N
ATOM 9732 CA SER B 647 208.390 180.362 186.887 1.00 81.51 C
ATOM 9733 C SER B 647 208.139 178.874 187.065 1.00 81.51 C
ATOM 9734 O SER B 647 208.895 178.059 186.524 1.00 81.51 O
ATOM 9735 CB SER B 647 209.786 180.718 187.410 1.00 81.51 C
ATOM 9736 OG SER B 647 210.125 182.055 187.086 1.00 81.51 O
ATOM 9737 N MET B 648 207.102 178.501 187.810 1.00 85.77 N
ATOM 9738 CA MET B 648 206.689 177.114 187.985 1.00 85.77 C
ATOM 9739 C MET B 648 205.177 177.010 187.875 1.00 85.77 C
ATOM 9740 O MET B 648 204.524 176.315 188.660 1.00 85.77 O

ATOM 9741 CB MET B 648 207.176 176.554 189.321 1.00 85.77 C
ATOM 9742 CG MET B 648 208.686 176.463 189.435 1.00 85.77 C
ATOM 9743 SD MET B 648 209.401 175.329 188.229 1.00 85.77 S
ATOM 9744 CE MET B 648 211.148 175.634 188.470 1.00 85.77 C
ATOM 9745 N ILE B 649 204.602 177.713 186.894 1.00 84.87 N
ATOM 9746 CA ILE B 649 203.150 177.791 186.757 1.00 84.87 C
ATOM 9747 C ILE B 649 202.542 176.418 186.504 1.00 84.87 C
ATOM 9748 O ILE B 649 201.370 176.181 186.819 1.00 84.87 O
ATOM 9749 CB ILE B 649 202.780 178.786 185.638 1.00 84.87 C
ATOM 9750 CG1 ILE B 649 203.261 180.194 185.996 1.00 84.87 C
ATOM 9751 CG2 ILE B 649 201.281 178.786 185.389 1.00 84.87 C
ATOM 9752 CD1 ILE B 649 203.167 181.182 184.853 1.00 84.87 C
ATOM 9753 N ALA B 650 203.316 175.495 185.941 1.00 87.51 N
ATOM 9754 CA ALA B 650 202.834 174.154 185.642 1.00 87.51 C
ATOM 9755 C ALA B 650 203.398 173.081 186.557 1.00 87.51 C
ATOM 9756 O ALA B 650 202.653 172.205 186.999 1.00 87.51 O
ATOM 9757 CB ALA B 650 203.155 173.791 184.188 1.00 87.51 C
ATOM 9758 N LEU B 651 204.693 173.122 186.859 1.00 88.01 N
ATOM 9759 CA LEU B 651 205.380 172.005 187.504 1.00 88.01 C
ATOM 9760 C LEU B 651 205.819 172.396 188.915 1.00 88.01 C
ATOM 9761 O LEU B 651 206.894 172.962 189.119 1.00 88.01 O
ATOM 9762 CB LEU B 651 206.567 171.546 186.659 1.00 88.01 C
ATOM 9763 CG LEU B 651 207.247 170.244 187.085 1.00 88.01 C
ATOM 9764 CD1 LEU B 651 207.842 169.544 185.877 1.00 88.01 C
ATOM 9765 CD2 LEU B 651 208.325 170.496 188.129 1.00 88.01 C
ATOM 9766 N ASP B 652 204.963 172.094 189.883 1.00 77.36 N
ATOM 9767 CA ASP B 652 205.307 171.943 191.293 1.00 77.36 C
ATOM 9768 C ASP B 652 204.633 170.686 191.818 1.00 77.36 C
ATOM 9769 O ASP B 652 203.981 170.682 192.864 1.00 77.36 O
ATOM 9770 CB ASP B 652 204.920 173.171 192.111 1.00 77.36 C
ATOM 9771 CG ASP B 652 203.437 173.470 192.054 1.00 77.36 C
ATOM 9772 OD1 ASP B 652 202.716 172.819 191.271 1.00 77.36 O
ATOM 9773 OD2 ASP B 652 202.988 174.346 192.816 1.00 77.36 O
ATOM 9774 N ILE B 653 204.835 169.592 191.072 1.00 73.21 N

ATOM 9775 CA ILE B 653 203.853 168.513 190.937 1.00 73.21 C
ATOM 9776 C ILE B 653 203.384 167.980 192.284 1.00 73.21 C
ATOM 9777 O ILE B 653 202.218 167.600 192.441 1.00 73.21 O
ATOM 9778 CB ILE B 653 204.430 167.386 190.060 1.00 73.21 C
ATOM 9779 CG1 ILE B 653 204.826 167.937 188.689 1.00 73.21 C
ATOM 9780 CG2 ILE B 653 203.422 166.257 189.915 1.00 73.21 C
ATOM 9781 CD1 ILE B 653 203.678 168.563 187.927 1.00 73.21 C
ATOM 9782 N ASP B 654 204.267 167.940 193.273 1.00 64.71 N
ATOM 9783 CA ASP B 654 203.791 167.457 194.561 1.00 64.71 C
ATOM 9784 C ASP B 654 204.591 168.009 195.733 1.00 64.71 C
ATOM 9785 O ASP B 654 205.790 167.737 195.863 1.00 64.71 O
ATOM 9786 CB ASP B 654 203.797 165.926 194.595 1.00 64.71 C
ATOM 9787 CG ASP B 654 205.155 165.333 194.263 1.00 64.71 C
ATOM 9788 OD1 ASP B 654 206.058 166.084 193.840 1.00 64.71 O
ATOM 9789 OD2 ASP B 654 205.322 164.109 194.444 1.00 64.71 O
ATOM 9790 N PRO B 655 203.963 168.789 196.602 1.00 54.05 N
ATOM 9791 CA PRO B 655 204.557 169.050 197.917 1.00 54.05 C
ATOM 9792 C PRO B 655 204.523 167.786 198.761 1.00 54.05 C
ATOM 9793 O PRO B 655 203.956 166.778 198.329 1.00 54.05 O
ATOM 9794 CB PRO B 655 203.670 170.159 198.490 1.00 54.05 C
ATOM 9795 CG PRO B 655 202.359 169.984 197.792 1.00 54.05 C
ATOM 9796 CD PRO B 655 202.687 169.499 196.413 1.00 54.05 C
ATOM 9797 N LEU B 656 205.103 167.810 199.959 1.00 46.60 N
ATOM 9798 CA LEU B 656 205.279 166.592 200.738 1.00 46.60 C
ATOM 9799 C LEU B 656 204.202 166.358 201.790 1.00 46.60 C
ATOM 9800 O LEU B 656 204.144 165.260 202.349 1.00 46.60 O
ATOM 9801 CB LEU B 656 206.654 166.587 201.414 1.00 46.60 C
ATOM 9802 CG LEU B 656 207.860 166.434 200.491 1.00 46.60 C
ATOM 9803 CD1 LEU B 656 209.144 166.576 201.284 1.00 46.60 C
ATOM 9804 CD2 LEU B 656 207.806 165.091 199.792 1.00 46.60 C
ATOM 9805 N GLU B 657 203.332 167.330 202.060 1.00 44.60 N
ATOM 9806 CA GLU B 657 202.314 167.185 203.100 1.00 44.60 C
ATOM 9807 C GLU B 657 202.971 166.972 204.468 1.00 44.60 C
ATOM 9808 O GLU B 657 202.890 165.911 205.085 1.00 44.60 O

ATOM 9809 CB GLU B 657 201.344 166.052 202.739 1.00 44.60 C
ATOM 9810 CG GLU B 657 200.078 165.969 203.568 1.00 44.60 C
ATOM 9811 CD GLU B 657 200.197 164.987 204.704 1.00 44.60 C
ATOM 9812 OE1 GLU B 657 200.947 164.003 204.549 1.00 44.60 O
ATOM 9813 OE2 GLU B 657 199.556 165.189 205.753 1.00 44.60 O
ATOM 9814 N ASN B 658 203.673 168.010 204.907 1.00 43.69 N
ATOM 9815 CA ASN B 658 204.391 167.983 206.168 1.00 43.69 C
ATOM 9816 C ASN B 658 203.455 168.225 207.346 1.00 43.69 C
ATOM 9817 O ASN B 658 202.297 168.618 207.177 1.00 43.69 O
ATOM 9818 CB ASN B 658 205.504 169.027 206.145 1.00 43.69 C
ATOM 9819 CG ASN B 658 204.999 170.400 205.771 1.00 43.69 C
ATOM 9820 OD1 ASN B 658 203.797 170.621 205.649 1.00 43.69 O
ATOM 9821 ND2 ASN B 658 205.920 171.327 205.556 1.00 43.69 N
ATOM 9822 N THR B 659 203.969 167.979 208.545 1.00 40.33 N
ATOM 9823 CA THR B 659 203.219 168.137 209.783 1.00 40.33 C
ATOM 9824 C THR B 659 204.044 168.936 210.789 1.00 40.33 C
ATOM 9825 O THR B 659 205.132 169.430 210.484 1.00 40.33 O
ATOM 9826 CB THR B 659 202.830 166.776 210.361 1.00 40.33 C
ATOM 9827 OG1 THR B 659 204.014 166.046 210.702 1.00 40.33 O
ATOM 9828 CG2 THR B 659 202.031 165.984 209.351 1.00 40.33 C
ATOM 9829 N ASP B 660 203.512 169.053 212.006 1.00 40.24 N
ATOM 9830 CA ASP B 660 204.198 169.767 213.081 1.00 40.24 C
ATOM 9831 C ASP B 660 203.685 169.200 214.402 1.00 40.24 C
ATOM 9832 O ASP B 660 202.572 169.521 214.827 1.00 40.24 O
ATOM 9833 CB ASP B 660 203.964 171.266 212.983 1.00 40.24 C
ATOM 9834 CG ASP B 660 204.854 172.054 213.918 1.00 40.24 C
ATOM 9835 OD1 ASP B 660 206.063 172.162 213.631 1.00 40.24 O
ATOM 9836 OD2 ASP B 660 204.352 172.564 214.940 1.00 40.24 O
ATOM 9837 N PHE B 661 204.502 168.371 215.045 1.00 38.71 N
ATOM 9838 CA PHE B 661 204.087 167.637 216.233 1.00 38.71 C
ATOM 9839 C PHE B 661 204.097 168.471 217.505 1.00 38.71 C
ATOM 9840 O PHE B 661 203.841 167.920 218.580 1.00 38.71 O
ATOM 9841 CB PHE B 661 204.988 166.420 216.433 1.00 38.71 C
ATOM 9842 CG PHE B 661 204.858 165.393 215.358 1.00 38.71 C

ATOM 9843 CD1 PHE B 661 203.840 164.460 215.392 1.00 38.71 C
ATOM 9844 CD2 PHE B 661 205.748 165.367 214.304 1.00 38.71 C
ATOM 9845 CE1 PHE B 661 203.721 163.515 214.398 1.00 38.71 C
ATOM 9846 CE2 PHE B 661 205.633 164.427 213.308 1.00 38.71 C
ATOM 9847 CZ PHE B 661 204.618 163.500 213.354 1.00 38.71 C
ATOM 9848 N ARG B 662 204.390 169.763 217.433 1.00 41.07 N
ATOM 9849 CA ARG B 662 204.480 170.573 218.641 1.00 41.07 C
ATOM 9850 C ARG B 662 203.341 171.565 218.791 1.00 41.07 C
ATOM 9851 O ARG B 662 202.778 171.681 219.879 1.00 41.07 O
ATOM 9852 CB ARG B 662 205.816 171.315 218.677 1.00 41.07 C
ATOM 9853 CG ARG B 662 207.007 170.386 218.779 1.00 41.07 C
ATOM 9854 CD ARG B 662 208.305 171.151 218.688 1.00 41.07 C
ATOM 9855 NE ARG B 662 208.536 172.012 219.840 1.00 41.07 N
ATOM 9856 CZ ARG B 662 209.203 171.637 220.926 1.00 41.07 C
ATOM 9857 NH1 ARG B 662 209.711 170.417 221.004 1.00 41.07 N
ATOM 9858 NH2 ARG B 662 209.369 172.490 221.924 1.00 41.07 N
ATOM 9859 N VAL B 663 202.971 172.284 217.726 1.00 41.05 N
ATOM 9860 CA VAL B 663 201.770 173.116 217.769 1.00 41.05 C
ATOM 9861 C VAL B 663 200.501 172.290 217.662 1.00 41.05 C
ATOM 9862 O VAL B 663 199.399 172.832 217.815 1.00 41.05 O
ATOM 9863 CB VAL B 663 201.770 174.167 216.641 1.00 41.05 C
ATOM 9864 CG1 VAL B 663 201.568 173.498 215.301 1.00 41.05 C
ATOM 9865 CG2 VAL B 663 200.705 175.220 216.876 1.00 41.05 C
ATOM 9866 N LEU B 664 200.622 170.988 217.420 1.00 39.56 N
ATOM 9867 CA LEU B 664 199.479 170.114 217.231 1.00 39.56 C
ATOM 9868 C LEU B 664 199.196 169.247 218.450 1.00 39.56 C
ATOM 9869 O LEU B 664 198.167 168.564 218.482 1.00 39.56 O
ATOM 9870 CB LEU B 664 199.713 169.239 215.988 1.00 39.56 C
ATOM 9871 CG LEU B 664 198.584 168.452 215.326 1.00 39.56 C
ATOM 9872 CD1 LEU B 664 198.858 168.279 213.849 1.00 39.56 C
ATOM 9873 CD2 LEU B 664 198.463 167.088 215.975 1.00 39.56 C
ATOM 9874 N GLU B 665 200.067 169.267 219.457 1.00 45.76 N
ATOM 9875 CA GLU B 665 199.803 168.623 220.735 1.00 45.76 C
ATOM 9876 C GLU B 665 199.177 169.575 221.743 1.00 45.76 C

ATOM 9877 O GLU B 665 198.790 169.142 222.833 1.00 45.76 O
ATOM 9878 CB GLU B 665 201.090 168.034 221.314 1.00 45.76 C
ATOM 9879 CG GLU B 665 201.634 166.853 220.534 1.00 45.76 C
ATOM 9880 CD GLU B 665 202.902 166.280 221.140 1.00 45.76 C
ATOM 9881 OE1 GLU B 665 203.428 166.874 222.104 1.00 45.76 O
ATOM 9882 OE2 GLU B 665 203.373 165.232 220.649 1.00 45.76 O
ATOM 9883 N LEU B 666 199.083 170.859 221.410 1.00 46.21 N
ATOM 9884 CA LEU B 666 198.343 171.826 222.208 1.00 46.21 C
ATOM 9885 C LEU B 666 196.853 171.790 221.916 1.00 46.21 C
ATOM 9886 O LEU B 666 196.041 171.978 222.825 1.00 46.21 O
ATOM 9887 CB LEU B 666 198.867 173.241 221.954 1.00 46.21 C
ATOM 9888 CG LEU B 666 200.302 173.541 222.376 1.00 46.21 C
ATOM 9889 CD1 LEU B 666 200.694 174.943 221.946 1.00 46.21 C
ATOM 9890 CD2 LEU B 666 200.463 173.371 223.873 1.00 46.21 C
ATOM 9891 N TYR B 667 196.483 171.570 220.654 1.00 42.41 N
ATOM 9892 CA TYR B 667 195.075 171.486 220.289 1.00 42.41 C
ATOM 9893 C TYR B 667 194.388 170.333 221.005 1.00 42.41 C
ATOM 9894 O TYR B 667 193.335 170.515 221.625 1.00 42.41 O
ATOM 9895 CB TYR B 667 194.945 171.347 218.775 1.00 42.41 C
ATOM 9896 CG TYR B 667 195.250 172.623 218.035 1.00 42.41 C
ATOM 9897 CD1 TYR B 667 195.164 173.848 218.671 1.00 42.41 C
ATOM 9898 CD2 TYR B 667 195.653 172.602 216.710 1.00 42.41 C
ATOM 9899 CE1 TYR B 667 195.442 175.017 218.002 1.00 42.41 C
ATOM 9900 CE2 TYR B 667 195.941 173.769 216.033 1.00 42.41 C
ATOM 9901 CZ TYR B 667 195.834 174.973 216.685 1.00 42.41 C
ATOM 9902 OH TYR B 667 196.118 176.140 216.016 1.00 42.41 O
ATOM 9903 N SER B 668 194.966 169.137 220.941 1.00 44.53 N
ATOM 9904 CA SER B 668 194.368 168.008 221.650 1.00 44.53 C
ATOM 9905 C SER B 668 194.907 167.889 223.070 1.00 44.53 C
ATOM 9906 O SER B 668 195.263 166.811 223.538 1.00 44.53 O
ATOM 9907 CB SER B 668 194.606 166.720 220.872 1.00 44.53 C
ATOM 9908 OG SER B 668 194.081 165.606 221.572 1.00 44.53 O
ATOM 9909 N GLN B 669 194.966 169.020 223.767 1.00 49.79 N
ATOM 9910 CA GLN B 669 195.139 169.025 225.212 1.00 49.79 C

ATOM 9911 C GLN B 669 194.317 170.106 225.898 1.00 49.79 C
ATOM 9912 O GLN B 669 194.203 170.076 227.127 1.00 49.79 O
ATOM 9913 CB GLN B 669 196.622 169.187 225.575 1.00 49.79 C
ATOM 9914 CG GLN B 669 196.940 168.941 227.040 1.00 49.79 C
ATOM 9915 CD GLN B 669 198.412 169.122 227.350 1.00 49.79 C
ATOM 9916 OE1 GLN B 669 199.199 169.487 226.478 1.00 49.79 O
ATOM 9917 NE2 GLN B 669 198.791 168.865 228.595 1.00 49.79 N
ATOM 9918 N LYS B 670 193.747 171.056 225.151 1.00 56.42 N
ATOM 9919 CA LYS B 670 192.885 172.115 225.684 1.00 56.42 C
ATOM 9920 C LYS B 670 193.660 173.152 226.501 1.00 56.42 C
ATOM 9921 O LYS B 670 193.214 173.574 227.568 1.00 56.42 O
ATOM 9922 CB LYS B 670 191.733 171.536 226.509 1.00 56.42 C
ATOM 9923 CG LYS B 670 190.538 171.084 225.687 1.00 56.42 C
ATOM 9924 CD LYS B 670 190.808 169.778 224.964 1.00 56.42 C
ATOM 9925 CE LYS B 670 189.561 169.287 224.245 1.00 56.42 C
ATOM 9926 NZ LYS B 670 189.820 168.059 223.443 1.00 56.42 N
ATOM 9927 N GLU B 671 194.825 173.572 225.997 1.00 59.54 N
ATOM 9928 CA GLU B 671 195.512 174.759 226.501 1.00 59.54 C
ATOM 9929 C GLU B 671 195.671 175.812 225.413 1.00 59.54 C
ATOM 9930 O GLU B 671 196.608 176.615 225.459 1.00 59.54 O
ATOM 9931 CB GLU B 671 196.883 174.416 227.085 1.00 59.54 C
ATOM 9932 CG GLU B 671 196.845 173.587 228.348 1.00 59.54 C
ATOM 9933 CD GLU B 671 196.691 172.128 228.031 1.00 59.54 C
ATOM 9934 OE1 GLU B 671 196.618 171.823 226.826 1.00 59.54 O
ATOM 9935 OE2 GLU B 671 196.656 171.297 228.962 1.00 59.54 O
ATOM 9936 N LEU B 672 194.771 175.823 224.437 1.00 58.80 N
ATOM 9937 CA LEU B 672 194.916 176.688 223.278 1.00 58.80 C
ATOM 9938 C LEU B 672 194.609 178.137 223.643 1.00 58.80 C
ATOM 9939 O LEU B 672 193.513 178.641 223.381 1.00 58.80 O
ATOM 9940 CB LEU B 672 194.023 176.171 222.143 1.00 58.80 C
ATOM 9941 CG LEU B 672 192.493 176.208 222.238 1.00 58.80 C
ATOM 9942 CD1 LEU B 672 191.874 176.000 220.867 1.00 58.80 C
ATOM 9943 CD2 LEU B 672 191.974 175.176 223.228 1.00 58.80 C
ATOM 9944 N ARG B 673 195.575 178.815 224.254 1.00 63.07 N

ATOM 9945 CA ARG B 673 195.373 180.217 224.603 1.00 63.07 C
ATOM 9946 C ARG B 673 196.525 181.130 224.197 1.00 63.07 C
ATOM 9947 O ARG B 673 196.283 182.295 223.873 1.00 63.07 O
ATOM 9948 CB ARG B 673 195.116 180.326 226.114 1.00 63.07 C
ATOM 9949 CG ARG B 673 194.743 181.713 226.594 1.00 63.07 C
ATOM 9950 CD ARG B 673 194.441 181.693 228.082 1.00 63.07 C
ATOM 9951 NE ARG B 673 195.626 181.375 228.872 1.00 63.07 N
ATOM 9952 CZ ARG B 673 195.604 181.091 230.170 1.00 63.07 C
ATOM 9953 NH1 ARG B 673 196.732 180.815 230.809 1.00 63.07 N
ATOM 9954 NH2 ARG B 673 194.453 181.077 230.828 1.00 63.07 N
ATOM 9955 N SER B 674 197.767 180.637 224.202 1.00 62.45 N
ATOM 9956 CA SER B 674 198.931 181.463 223.887 1.00 62.45 C
ATOM 9957 C SER B 674 199.624 181.019 222.608 1.00 62.45 C
ATOM 9958 O SER B 674 199.695 181.778 221.637 1.00 62.45 O
ATOM 9959 CB SER B 674 199.933 181.410 225.045 1.00 62.45 C
ATOM 9960 OG SER B 674 199.353 181.870 226.240 1.00 62.45 O
ATOM 9961 N SER B 675 200.128 179.788 222.584 1.00 61.82 N
ATOM 9962 CA SER B 675 200.573 179.134 221.365 1.00 61.82 C
ATOM 9963 C SER B 675 199.426 178.406 220.688 1.00 61.82 C
ATOM 9964 O SER B 675 199.665 177.519 219.862 1.00 61.82 O
ATOM 9965 CB SER B 675 201.721 178.167 221.666 1.00 61.82 C
ATOM 9966 OG SER B 675 202.177 177.533 220.484 1.00 61.82 O
ATOM 9967 N ASN B 676 198.193 178.732 221.085 1.00 59.58 N
ATOM 9968 CA ASN B 676 196.977 178.299 220.413 1.00 59.58 C
ATOM 9969 C ASN B 676 197.119 178.421 218.912 1.00 59.58 C
ATOM 9970 O ASN B 676 197.197 177.428 218.181 1.00 59.58 O
ATOM 9971 CB ASN B 676 195.825 179.185 220.895 1.00 59.58 C
ATOM 9972 CG ASN B 676 194.479 178.772 220.340 1.00 59.58 C
ATOM 9973 OD1 ASN B 676 194.360 177.788 219.612 1.00 59.58 O
ATOM 9974 ND2 ASN B 676 193.450 179.537 220.682 1.00 59.58 N
ATOM 9975 N VAL B 677 197.205 179.658 218.458 1.00 59.13 N
ATOM 9976 CA VAL B 677 197.412 179.997 217.074 1.00 59.13 C
ATOM 9977 C VAL B 677 198.365 181.182 217.043 1.00 59.13 C
ATOM 9978 O VAL B 677 198.654 181.803 218.068 1.00 59.13 O

ATOM 9979 CB VAL B 677 196.091 180.343 216.354 1.00 59.13 C
ATOM 9980 CG1 VAL B 677 195.149 179.156 216.375 1.00 59.13 C
ATOM 9981 CG2 VAL B 677 195.436 181.557 217.004 1.00 59.13 C
ATOM 9982 N PHE B 678 198.841 181.502 215.855 1.00 47.33 N
ATOM 9983 CA PHE B 678 199.587 182.722 215.654 1.00 47.33 C
ATOM 9984 C PHE B 678 198.869 183.728 214.791 1.00 47.33 C
ATOM 9985 O PHE B 678 199.220 184.911 214.838 1.00 47.33 O
ATOM 9986 CB PHE B 678 200.954 182.432 215.024 1.00 47.33 C
ATOM 9987 CG PHE B 678 201.975 182.032 216.012 1.00 47.33 C
ATOM 9988 CD1 PHE B 678 201.707 182.172 217.353 1.00 47.33 C
ATOM 9989 CD2 PHE B 678 203.210 181.566 215.619 1.00 47.33 C
ATOM 9990 CE1 PHE B 678 202.626 181.827 218.282 1.00 47.33 C
ATOM 9991 CE2 PHE B 678 204.145 181.218 216.556 1.00 47.33 C
ATOM 9992 CZ PHE B 678 203.849 181.349 217.894 1.00 47.33 C
ATOM 9993 N ASP B 679 197.873 183.308 214.021 1.00 43.05 N
ATOM 9994 CA ASP B 679 197.377 184.138 212.941 1.00 43.05 C
ATOM 9995 C ASP B 679 198.541 184.478 212.013 1.00 43.05 C
ATOM 9996 O ASP B 679 199.012 185.609 211.958 1.00 43.05 O
ATOM 9997 CB ASP B 679 196.697 185.397 213.484 1.00 43.05 C
ATOM 9998 CG ASP B 679 195.407 185.094 214.217 1.00 43.05 C
ATOM 9999 OD1 ASP B 679 194.729 184.110 213.855 1.00 43.05 O
ATOM 10000 OD2 ASP B 679 195.068 185.840 215.160 1.00 43.05 O
ATOM 10001 N LEU B 680 199.082 183.454 211.355 1.00 41.47 N
ATOM 10002 CA LEU B 680 200.205 183.692 210.457 1.00 41.47 C
ATOM 10003 C LEU B 680 199.716 184.197 209.108 1.00 41.47 C
ATOM 10004 O LEU B 680 200.253 185.169 208.564 1.00 41.47 O
ATOM 10005 CB LEU B 680 201.028 182.417 210.307 1.00 41.47 C
ATOM 10006 CG LEU B 680 201.716 181.965 211.597 1.00 41.47 C
ATOM 10007 CD1 LEU B 680 202.329 180.592 211.428 1.00 41.47 C
ATOM 10008 CD2 LEU B 680 202.777 182.966 212.016 1.00 41.47 C
ATOM 10009 N GLU B 681 198.694 183.552 208.560 1.00 43.05 N
ATOM 10010 CA GLU B 681 197.929 184.092 207.438 1.00 43.05 C
ATOM 10011 C GLU B 681 196.773 184.938 207.967 1.00 43.05 C
ATOM 10012 O GLU B 681 195.611 184.779 207.600 1.00 43.05 O

ATOM 10013 CB GLU B 681 197.435 182.954 206.551 1.00 43.05 C
ATOM 10014 CG GLU B 681 196.482 181.992 207.247 1.00 43.05 C
ATOM 10015 CD GLU B 681 196.110 180.812 206.375 1.00 43.05 C
ATOM 10016 OE1 GLU B 681 196.625 180.726 205.241 1.00 43.05 O
ATOM 10017 OE2 GLU B 681 195.305 179.968 206.820 1.00 43.05 O
ATOM 10018 N GLU B 682 197.133 185.883 208.835 1.00 44.68 N
ATOM 10019 CA GLU B 682 196.173 186.431 209.787 1.00 44.68 C
ATOM 10020 C GLU B 682 195.035 187.207 209.132 1.00 44.68 C
ATOM 10021 O GLU B 682 193.887 187.108 209.571 1.00 44.68 O
ATOM 10022 CB GLU B 682 196.911 187.251 210.850 1.00 44.68 C
ATOM 10023 CG GLU B 682 198.137 188.019 210.408 1.00 44.68 C
ATOM 10024 CD GLU B 682 198.970 188.435 211.610 1.00 44.68 C
ATOM 10025 OE1 GLU B 682 198.441 188.411 212.738 1.00 44.68 O
ATOM 10026 OE2 GLU B 682 200.189 188.659 211.458 1.00 44.68 O
ATOM 10027 N ILE B 683 195.302 187.939 208.053 1.00 39.47 N
ATOM 10028 CA ILE B 683 194.236 188.728 207.434 1.00 39.47 C
ATOM 10029 C ILE B 683 193.062 187.854 206.981 1.00 39.47 C
ATOM 10030 O ILE B 683 191.944 188.347 206.809 1.00 39.47 O
ATOM 10031 CB ILE B 683 194.793 189.592 206.289 1.00 39.47 C
ATOM 10032 CG1 ILE B 683 195.846 190.538 206.857 1.00 39.47 C
ATOM 10033 CG2 ILE B 683 193.692 190.416 205.642 1.00 39.47 C
ATOM 10034 CD1 ILE B 683 195.317 191.385 207.989 1.00 39.47 C
ATOM 10035 N MET B 684 193.287 186.547 206.827 1.00 41.25 N
ATOM 10036 CA MET B 684 192.196 185.578 206.802 1.00 41.25 C
ATOM 10037 C MET B 684 191.974 184.909 208.153 1.00 41.25 C
ATOM 10038 O MET B 684 190.829 184.691 208.558 1.00 41.25 O
ATOM 10039 CB MET B 684 192.452 184.498 205.745 1.00 41.25 C
ATOM 10040 CG MET B 684 191.335 183.479 205.616 1.00 41.25 C
ATOM 10041 SD MET B 684 189.804 184.192 205.008 1.00 41.25 S
ATOM 10042 CE MET B 684 188.616 182.987 205.593 1.00 41.25 C
ATOM 10043 N ARG B 685 193.044 184.546 208.853 1.00 41.45 N
ATOM 10044 CA ARG B 685 192.897 183.791 210.090 1.00 41.45 C
ATOM 10045 C ARG B 685 192.635 184.677 211.303 1.00 41.45 C
ATOM 10046 O ARG B 685 192.050 184.203 212.280 1.00 41.45 O

ATOM 10047 CB ARG B 685 194.144 182.948 210.332 1.00 41.45 C
ATOM 10048 CG ARG B 685 194.099 182.106 211.589 1.00 41.45 C
ATOM 10049 CD ARG B 685 193.025 181.043 211.493 1.00 41.45 C
ATOM 10050 NE ARG B 685 193.076 180.139 212.635 1.00 41.45 N
ATOM 10051 CZ ARG B 685 193.778 179.010 212.656 1.00 41.45 C
ATOM 10052 NH1 ARG B 685 194.475 178.640 211.590 1.00 41.45 N
ATOM 10053 NH2 ARG B 685 193.776 178.245 213.735 1.00 41.45 N
ATOM 10054 N GLU B 686 193.048 185.944 211.259 1.00 37.36 N
ATOM 10055 CA GLU B 686 192.979 186.799 212.438 1.00 37.36 C
ATOM 10056 C GLU B 686 191.575 187.311 212.719 1.00 37.36 C
ATOM 10057 O GLU B 686 191.289 187.686 213.859 1.00 37.36 O
ATOM 10058 CB GLU B 686 193.956 187.966 212.293 1.00 37.36 C
ATOM 10059 CG GLU B 686 194.114 188.855 213.504 1.00 37.36 C
ATOM 10060 CD GLU B 686 193.121 189.991 213.518 1.00 37.36 C
ATOM 10061 OE1 GLU B 686 192.658 190.392 212.431 1.00 37.36 O
ATOM 10062 OE2 GLU B 686 192.800 190.482 214.617 1.00 37.36 O
ATOM 10063 N PHE B 687 190.684 187.337 211.729 1.00 38.65 N
ATOM 10064 CA PHE B 687 189.343 187.849 211.963 1.00 38.65 C
ATOM 10065 C PHE B 687 188.375 186.746 212.374 1.00 38.65 C
ATOM 10066 O PHE B 687 187.325 187.038 212.951 1.00 38.65 O
ATOM 10067 CB PHE B 687 188.817 188.605 210.740 1.00 38.65 C
ATOM 10068 CG PHE B 687 188.504 187.744 209.532 1.00 38.65 C
ATOM 10069 CD1 PHE B 687 189.446 187.549 208.547 1.00 38.65 C
ATOM 10070 CD2 PHE B 687 187.254 187.159 209.373 1.00 38.65 C
ATOM 10071 CE1 PHE B 687 189.134 186.791 207.419 1.00 38.65 C
ATOM 10072 CE2 PHE B 687 186.960 186.401 208.284 1.00 38.65 C
ATOM 10073 CZ PHE B 687 187.892 186.211 207.308 1.00 38.65 C
ATOM 10074 N ASN B 688 188.710 185.489 212.095 1.00 36.65 N
ATOM 10075 CA ASN B 688 187.961 184.384 212.690 1.00 36.65 C
ATOM 10076 C ASN B 688 188.086 184.378 214.208 1.00 36.65 C
ATOM 10077 O ASN B 688 187.156 183.978 214.906 1.00 36.65 O
ATOM 10078 CB ASN B 688 188.457 183.044 212.116 1.00 36.65 C
ATOM 10079 CG ASN B 688 187.975 182.794 210.706 1.00 36.65 C
ATOM 10080 OD1 ASN B 688 186.850 183.139 210.352 1.00 36.65 O

ATOM 10081 ND2 ASN B 688 188.807 182.135 209.902 1.00 36.65 N
ATOM 10082 N SER B 689 189.232 184.832 214.731 1.00 36.68 N
ATOM 10083 CA SER B 689 189.473 184.754 216.170 1.00 36.68 C
ATOM 10084 C SER B 689 189.216 186.071 216.888 1.00 36.68 C
ATOM 10085 O SER B 689 189.025 186.064 218.107 1.00 36.68 O
ATOM 10086 CB SER B 689 190.918 184.311 216.433 1.00 36.68 C
ATOM 10087 OG SER B 689 191.154 183.013 215.924 1.00 36.68 O
ATOM 10088 N TYR B 690 189.220 187.200 216.165 1.00 36.34 N
ATOM 10089 CA TYR B 690 189.117 188.503 216.821 1.00 36.34 C
ATOM 10090 C TYR B 690 187.838 188.639 217.627 1.00 36.34 C
ATOM 10091 O TYR B 690 187.836 189.278 218.684 1.00 36.34 O
ATOM 10092 CB TYR B 690 189.182 189.631 215.794 1.00 36.34 C
ATOM 10093 CG TYR B 690 189.112 191.002 216.427 1.00 36.34 C
ATOM 10094 CD1 TYR B 690 190.220 191.556 217.046 1.00 36.34 C
ATOM 10095 CD2 TYR B 690 187.933 191.731 216.422 1.00 36.34 C
ATOM 10096 CE1 TYR B 690 190.161 192.803 217.629 1.00 36.34 C
ATOM 10097 CE2 TYR B 690 187.867 192.980 217.004 1.00 36.34 C
ATOM 10098 CZ TYR B 690 188.983 193.510 217.605 1.00 36.34 C
ATOM 10099 OH TYR B 690 188.919 194.753 218.186 1.00 36.34 O
ATOM 10100 N LYS B 691 186.749 188.055 217.150 1.00 37.14 N
ATOM 10101 CA LYS B 691 185.502 188.062 217.892 1.00 37.14 C
ATOM 10102 C LYS B 691 185.585 187.242 219.172 1.00 37.14 C
ATOM 10103 O LYS B 691 184.833 187.511 220.114 1.00 37.14 O
ATOM 10104 CB LYS B 691 184.395 187.524 216.996 1.00 37.14 C
ATOM 10105 CG LYS B 691 183.002 187.733 217.494 1.00 37.14 C
ATOM 10106 CD LYS B 691 182.063 187.053 216.531 1.00 37.14 C
ATOM 10107 CE LYS B 691 181.634 187.985 215.426 1.00 37.14 C
ATOM 10108 NZ LYS B 691 182.720 188.201 214.427 1.00 37.14 N
ATOM 10109 N GLN B 692 186.484 186.260 219.223 1.00 40.29 N
ATOM 10110 CA GLN B 692 186.732 185.463 220.417 1.00 40.29 C
ATOM 10111 C GLN B 692 187.479 186.228 221.493 1.00 40.29 C
ATOM 10112 O GLN B 692 187.182 186.061 222.680 1.00 40.29 O
ATOM 10113 CB GLN B 692 187.534 184.212 220.050 1.00 40.29 C
ATOM 10114 CG GLN B 692 187.971 183.375 221.235 1.00 40.29 C

ATOM 10115 CD GLN B 692 186.812 182.845 222.042 1.00 40.29 C
ATOM 10116 OE1 GLN B 692 186.535 183.327 223.138 1.00 40.29 O
ATOM 10117 NE2 GLN B 692 186.124 181.842 221.506 1.00 40.29 N
ATOM 10118 N ARG B 693 188.438 187.066 221.108 1.00 42.03 N
ATOM 10119 CA ARG B 693 189.275 187.786 222.053 1.00 42.03 C
ATOM 10120 C ARG B 693 188.679 189.128 222.458 1.00 42.03 C
ATOM 10121 O ARG B 693 189.418 190.041 222.841 1.00 42.03 O
ATOM 10122 CB ARG B 693 190.685 187.942 221.476 1.00 42.03 C
ATOM 10123 CG ARG B 693 191.436 186.613 221.483 1.00 42.03 C
ATOM 10124 CD ARG B 693 192.765 186.649 220.756 1.00 42.03 C
ATOM 10125 NE ARG B 693 193.426 185.346 220.820 1.00 42.03 N
ATOM 10126 CZ ARG B 693 194.486 184.994 220.098 1.00 42.03 C
ATOM 10127 NH1 ARG B 693 195.000 185.838 219.215 1.00 42.03 N
ATOM 10128 NH2 ARG B 693 195.013 183.788 220.238 1.00 42.03 N
ATOM 10129 N VAL B 694 187.356 189.265 222.379 1.00 40.09 N
ATOM 10130 CA VAL B 694 186.658 190.372 223.018 1.00 40.09 C
ATOM 10131 C VAL B 694 185.982 189.914 224.305 1.00 40.09 C
ATOM 10132 O VAL B 694 185.601 190.760 225.127 1.00 40.09 O
ATOM 10133 CB VAL B 694 185.633 191.001 222.053 1.00 40.09 C
ATOM 10134 CG1 VAL B 694 184.955 192.214 222.674 1.00 40.09 C
ATOM 10135 CG2 VAL B 694 186.318 191.367 220.766 1.00 40.09 C
ATOM 10136 N LYS B 695 185.834 188.605 224.510 1.00 44.67 N
ATOM 10137 CA LYS B 695 185.410 188.108 225.809 1.00 44.67 C
ATOM 10138 C LYS B 695 186.536 188.160 226.825 1.00 44.67 C
ATOM 10139 O LYS B 695 186.285 188.456 227.997 1.00 44.67 O
ATOM 10140 CB LYS B 695 184.904 186.673 225.702 1.00 44.67 C
ATOM 10141 CG LYS B 695 183.572 186.517 225.020 1.00 44.67 C
ATOM 10142 CD LYS B 695 183.121 185.080 225.145 1.00 44.67 C
ATOM 10143 CE LYS B 695 183.934 184.191 224.230 1.00 44.67 C
ATOM 10144 NZ LYS B 695 183.408 182.806 224.264 1.00 44.67 N
ATOM 10145 N TYR B 696 187.766 187.860 226.398 1.00 46.97 N
ATOM 10146 CA TYR B 696 188.915 187.943 227.294 1.00 46.97 C
ATOM 10147 C TYR B 696 189.010 189.320 227.933 1.00 46.97 C
ATOM 10148 O TYR B 696 189.340 189.450 229.116 1.00 46.97 O

ATOM 10149 CB TYR B 696 190.203 187.637 226.535 1.00 46.97 C
ATOM 10150 CG TYR B 696 190.376 186.215 226.062 1.00 46.97 C
ATOM 10151 CD1 TYR B 696 189.553 185.198 226.515 1.00 46.97 C
ATOM 10152 CD2 TYR B 696 191.384 185.892 225.167 1.00 46.97 C
ATOM 10153 CE1 TYR B 696 189.724 183.899 226.075 1.00 46.97 C
ATOM 10154 CE2 TYR B 696 191.563 184.607 224.725 1.00 46.97 C
ATOM 10155 CZ TYR B 696 190.734 183.612 225.178 1.00 46.97 C
ATOM 10156 OH TYR B 696 190.929 182.329 224.724 1.00 46.97 O
ATOM 10157 N VAL B 697 188.731 190.365 227.156 1.00 49.70 N
ATOM 10158 CA VAL B 697 188.806 191.720 227.682 1.00 49.70 C
ATOM 10159 C VAL B 697 187.700 191.962 228.702 1.00 49.70 C
ATOM 10160 O VAL B 697 187.970 192.243 229.875 1.00 49.70 O
ATOM 10161 CB VAL B 697 188.746 192.740 226.534 1.00 49.70 C
ATOM 10162 CG1 VAL B 697 188.626 194.127 227.092 1.00 49.70 C
ATOM 10163 CG2 VAL B 697 189.985 192.624 225.671 1.00 49.70 C
ATOM 10164 N GLU B 698 186.440 191.839 228.277 1.00 54.68 N
ATOM 10165 CA GLU B 698 185.331 192.241 229.135 1.00 54.68 C
ATOM 10166 C GLU B 698 185.201 191.370 230.373 1.00 54.68 C
ATOM 10167 O GLU B 698 184.939 191.889 231.464 1.00 54.68 O
ATOM 10168 CB GLU B 698 184.015 192.201 228.378 1.00 54.68 C
ATOM 10169 CG GLU B 698 182.872 192.632 229.261 1.00 54.68 C
ATOM 10170 CD GLU B 698 181.548 192.451 228.594 1.00 54.68 C
ATOM 10171 OE1 GLU B 698 181.540 191.939 227.458 1.00 54.68 O
ATOM 10172 OE2 GLU B 698 180.513 192.812 229.192 1.00 54.68 O
ATOM 10173 N ASP B 699 185.340 190.050 230.227 1.00 54.47 N
ATOM 10174 CA ASP B 699 185.218 189.150 231.371 1.00 54.47 C
ATOM 10175 C ASP B 699 186.217 189.514 232.462 1.00 54.47 C
ATOM 10176 O ASP B 699 185.967 189.289 233.650 1.00 54.47 O
ATOM 10177 CB ASP B 699 185.409 187.699 230.929 1.00 54.47 C
ATOM 10178 CG ASP B 699 185.187 186.715 232.059 1.00 54.47 C
ATOM 10179 OD1 ASP B 699 184.018 186.497 232.440 1.00 54.47 O
ATOM 10180 OD2 ASP B 699 186.180 186.163 232.573 1.00 54.47 O
ATOM 10181 N LYS B 700 187.357 190.075 232.070 1.00 56.35 N
ATOM 10182 CA LYS B 700 188.288 190.671 233.011 1.00 56.35 C

ATOM 10183 C LYS B 700 188.211 192.187 233.010 1.00 56.35 C
ATOM 10184 O LYS B 700 189.153 192.845 233.462 1.00 56.35 O
ATOM 10185 CB LYS B 700 189.692 190.174 232.694 1.00 56.35 C
ATOM 10186 CG LYS B 700 189.731 188.666 232.822 1.00 56.35 C
ATOM 10187 CD LYS B 700 191.063 188.045 232.490 1.00 56.35 C
ATOM 10188 CE LYS B 700 190.976 186.542 232.698 1.00 56.35 C
ATOM 10189 NZ LYS B 700 190.072 185.894 231.710 1.00 56.35 N
ATOM 10190 N VAL B 701 187.124 192.742 232.478 1.00 59.09 N
ATOM 10191 CA VAL B 701 186.773 194.146 232.653 1.00 59.09 C
ATOM 10192 C VAL B 701 185.965 194.311 233.929 1.00 59.09 C
ATOM 10193 O VAL B 701 186.236 195.204 234.738 1.00 59.09 O
ATOM 10194 CB VAL B 701 185.989 194.690 231.444 1.00 59.09 C
ATOM 10195 CG1 VAL B 701 185.262 195.970 231.817 1.00 59.09 C
ATOM 10196 CG2 VAL B 701 186.930 194.972 230.294 1.00 59.09 C
ATOM 10197 N VAL B 702 184.960 193.453 234.114 1.00 64.20 N
ATOM 10198 CA VAL B 702 184.055 193.610 235.243 1.00 64.20 C
ATOM 10199 C VAL B 702 184.715 193.239 236.564 1.00 64.20 C
ATOM 10200 O VAL B 702 184.235 193.647 237.627 1.00 64.20 O
ATOM 10201 CB VAL B 702 182.783 192.774 235.012 1.00 64.20 C
ATOM 10202 CG1 VAL B 702 183.119 191.292 235.004 1.00 64.20 C
ATOM 10203 CG2 VAL B 702 181.737 193.089 236.069 1.00 64.20 C
ATOM 10204 N ASP B 703 185.808 192.483 236.531 1.00 64.43 N
ATOM 10205 CA ASP B 703 186.463 192.038 237.756 1.00 64.43 C
ATOM 10206 C ASP B 703 187.305 193.128 238.415 1.00 64.43 C
ATOM 10207 O ASP B 703 187.088 193.435 239.594 1.00 64.43 O
ATOM 10208 CB ASP B 703 187.330 190.809 237.480 1.00 64.43 C
ATOM 10209 CG ASP B 703 186.507 189.562 237.233 1.00 64.43 C
ATOM 10210 OD1 ASP B 703 185.381 189.479 237.764 1.00 64.43 O
ATOM 10211 OD2 ASP B 703 186.988 188.659 236.518 1.00 64.43 O
ATOM 10212 N PRO B 704 188.269 193.734 237.712 1.00 68.16 N
ATOM 10213 CA PRO B 704 189.168 194.674 238.405 1.00 68.16 C
ATOM 10214 C PRO B 704 188.476 195.936 238.883 1.00 68.16 C
ATOM 10215 O PRO B 704 188.740 196.388 240.004 1.00 68.16 O
ATOM 10216 CB PRO B 704 190.238 194.977 237.348 1.00 68.16 C

ATOM 10217 CG PRO B 704 189.561 194.739 236.056 1.00 68.16 C
ATOM 10218 CD PRO B 704 188.622 193.593 236.290 1.00 68.16 C
ATOM 10219 N LEU B 705 187.602 196.524 238.076 1.00 75.72 N
ATOM 10220 CA LEU B 705 186.878 197.698 238.542 1.00 75.72 C
ATOM 10221 C LEU B 705 185.664 197.231 239.336 1.00 75.72 C
ATOM 10222 O LEU B 705 184.736 196.642 238.769 1.00 75.72 O
ATOM 10223 CB LEU B 705 186.492 198.604 237.369 1.00 75.72 C
ATOM 10224 CG LEU B 705 185.561 198.119 236.257 1.00 75.72 C
ATOM 10225 CD1 LEU B 705 184.108 198.444 236.566 1.00 75.72 C
ATOM 10226 CD2 LEU B 705 185.978 198.717 234.926 1.00 75.72 C
ATOM 10227 N PRO B 706 185.655 197.438 240.650 1.00 84.96 N
ATOM 10228 CA PRO B 706 184.600 196.866 241.495 1.00 84.96 C
ATOM 10229 C PRO B 706 183.249 197.485 241.191 1.00 84.96 C
ATOM 10230 O PRO B 706 183.043 198.689 241.408 1.00 84.96 O
ATOM 10231 CB PRO B 706 185.059 197.219 242.919 1.00 84.96 C
ATOM 10232 CG PRO B 706 186.530 197.454 242.798 1.00 84.96 C
ATOM 10233 CD PRO B 706 186.713 198.078 241.448 1.00 84.96 C
ATOM 10234 N PRO B 707 182.298 196.696 240.686 1.00 85.82 N
ATOM 10235 CA PRO B 707 180.937 197.232 240.530 1.00 85.82 C
ATOM 10236 C PRO B 707 180.260 197.485 241.862 1.00 85.82 C
ATOM 10237 O PRO B 707 179.446 198.411 241.976 1.00 85.82 O
ATOM 10238 CB PRO B 707 180.221 196.138 239.726 1.00 85.82 C
ATOM 10239 CG PRO B 707 181.319 195.344 239.086 1.00 85.82 C
ATOM 10240 CD PRO B 707 182.435 195.363 240.081 1.00 85.82 C
ATOM 10241 N TYR B 708 180.571 196.680 242.874 1.00 87.11 N
ATOM 10242 CA TYR B 708 179.959 196.774 244.187 1.00 87.11 C
ATOM 10243 C TYR B 708 181.023 197.053 245.243 1.00 87.11 C
ATOM 10244 O TYR B 708 182.222 197.099 244.963 1.00 87.11 O
ATOM 10245 CB TYR B 708 179.214 195.481 244.518 1.00 87.11 C
ATOM 10246 CG TYR B 708 178.093 195.161 243.567 1.00 87.11 C
ATOM 10247 CD1 TYR B 708 176.867 195.792 243.675 1.00 87.11 C
ATOM 10248 CD2 TYR B 708 178.260 194.220 242.562 1.00 87.11 C
ATOM 10249 CE1 TYR B 708 175.839 195.502 242.808 1.00 87.11 C
ATOM 10250 CE2 TYR B 708 177.237 193.920 241.690 1.00 87.11 C

ATOM 10251 CZ TYR B 708 176.028 194.564 241.817 1.00 87.11 C
ATOM 10252 OH TYR B 708 175.002 194.272 240.949 1.00 87.11 O
ATOM 10253 N LEU B 709 180.572 197.243 246.476 1.00 88.60 N
ATOM 10254 CA LEU B 709 181.462 197.211 247.624 1.00 88.60 C
ATOM 10255 C LEU B 709 181.481 195.792 248.192 1.00 88.60 C
ATOM 10256 O LEU B 709 181.074 194.833 247.532 1.00 88.60 O
ATOM 10257 CB LEU B 709 181.065 198.271 248.650 1.00 88.60 C
ATOM 10258 CG LEU B 709 179.655 198.316 249.232 1.00 88.60 C
ATOM 10259 CD1 LEU B 709 179.484 197.299 250.339 1.00 88.60 C
ATOM 10260 CD2 LEU B 709 179.394 199.716 249.760 1.00 88.60 C
ATOM 10261 N LYS B 710 181.994 195.649 249.416 1.00 89.60 N
ATOM 10262 CA LYS B 710 182.168 194.337 250.034 1.00 89.60 C
ATOM 10263 C LYS B 710 180.859 193.552 250.088 1.00 89.60 C
ATOM 10264 O LYS B 710 180.780 192.416 249.607 1.00 89.60 O
ATOM 10265 CB LYS B 710 182.745 194.511 251.440 1.00 89.60 C
ATOM 10266 CG LYS B 710 183.016 193.213 252.184 1.00 89.60 C
ATOM 10267 CD LYS B 710 183.647 193.486 253.542 1.00 89.60 C
ATOM 10268 CE LYS B 710 182.582 193.724 254.600 1.00 89.60 C
ATOM 10269 NZ LYS B 710 182.104 195.132 254.598 1.00 89.60 N
ATOM 10270 N GLY B 711 179.822 194.145 250.669 1.00 83.60 N
ATOM 10271 CA GLY B 711 178.624 193.416 251.039 1.00 83.60 C
ATOM 10272 C GLY B 711 177.826 192.713 249.957 1.00 83.60 C
ATOM 10273 O GLY B 711 177.782 191.479 249.937 1.00 83.60 O
ATOM 10274 N LEU B 712 177.195 193.485 249.064 1.00 78.65 N
ATOM 10275 CA LEU B 712 176.085 193.039 248.216 1.00 78.65 C
ATOM 10276 C LEU B 712 176.256 191.680 247.548 1.00 78.65 C
ATOM 10277 O LEU B 712 175.301 190.900 247.486 1.00 78.65 O
ATOM 10278 CB LEU B 712 175.797 194.076 247.129 1.00 78.65 C
ATOM 10279 CG LEU B 712 174.897 195.253 247.501 1.00 78.65 C
ATOM 10280 CD1 LEU B 712 175.632 196.243 248.380 1.00 78.65 C
ATOM 10281 CD2 LEU B 712 174.369 195.933 246.251 1.00 78.65 C
ATOM 10282 N ASP B 713 177.453 191.380 247.041 1.00 84.61 N
ATOM 10283 CA ASP B 713 177.647 190.112 246.348 1.00 84.61 C
ATOM 10284 C ASP B 713 177.431 188.914 247.263 1.00 84.61 C

ATOM 10285 O ASP B 713 177.158 187.814 246.771 1.00 84.61 O
ATOM 10286 CB ASP B 713 179.041 190.055 245.730 1.00 84.61 C
ATOM 10287 CG ASP B 713 179.223 188.856 244.825 1.00 84.61 C
ATOM 10288 OD1 ASP B 713 178.661 188.865 243.709 1.00 84.61 O
ATOM 10289 OD2 ASP B 713 179.923 187.904 245.227 1.00 84.61 O
ATOM 10290 N ASP B 714 177.542 189.100 248.577 1.00 82.99 N
ATOM 10291 CA ASP B 714 177.222 188.057 249.539 1.00 82.99 C
ATOM 10292 C ASP B 714 175.743 188.014 249.894 1.00 82.99 C
ATOM 10293 O ASP B 714 175.304 187.054 250.535 1.00 82.99 O
ATOM 10294 CB ASP B 714 178.043 188.245 250.818 1.00 82.99 C
ATOM 10295 CG ASP B 714 179.524 188.003 250.600 1.00 82.99 C
ATOM 10296 OD1 ASP B 714 179.871 187.205 249.704 1.00 82.99 O
ATOM 10297 OD2 ASP B 714 180.340 188.611 251.324 1.00 82.99 O
ATOM 10298 N LEU B 715 174.972 189.027 249.505 1.00 76.80 N
ATOM 10299 CA LEU B 715 173.534 189.059 249.743 1.00 76.80 C
ATOM 10300 C LEU B 715 172.732 188.555 248.555 1.00 76.80 C
ATOM 10301 O LEU B 715 171.777 187.795 248.738 1.00 76.80 O
ATOM 10302 CB LEU B 715 173.085 190.481 250.098 1.00 76.80 C
ATOM 10303 CG LEU B 715 171.640 190.692 250.560 1.00 76.80 C
ATOM 10304 CD1 LEU B 715 171.570 191.860 251.522 1.00 76.80 C
ATOM 10305 CD2 LEU B 715 170.715 190.940 249.385 1.00 76.80 C
ATOM 10306 N MET B 716 173.098 188.962 247.338 1.00 79.22 N
ATOM 10307 CA MET B 716 172.383 188.501 246.155 1.00 79.22 C
ATOM 10308 C MET B 716 172.538 187.002 245.947 1.00 79.22 C
ATOM 10309 O MET B 716 171.704 186.392 245.271 1.00 79.22 O
ATOM 10310 CB MET B 716 172.866 189.273 244.924 1.00 79.22 C
ATOM 10311 CG MET B 716 172.136 188.950 243.629 1.00 79.22 C
ATOM 10312 SD MET B 716 172.886 187.624 242.666 1.00 79.22 S
ATOM 10313 CE MET B 716 171.670 187.429 241.364 1.00 79.22 C
ATOM 10314 N SER B 717 173.580 186.395 246.513 1.00 79.70 N
ATOM 10315 CA SER B 717 173.725 184.945 246.539 1.00 79.70 C
ATOM 10316 C SER B 717 173.140 184.336 247.806 1.00 79.70 C
ATOM 10317 O SER B 717 172.442 183.321 247.743 1.00 79.70 O
ATOM 10318 CB SER B 717 175.200 184.553 246.403 1.00 79.70 C

ATOM 10319 OG SER B 717 175.351 183.145 246.456 1.00 79.70 O
ATOM 10320 N GLY B 718 173.411 184.942 248.965 1.00 78.07 N
ATOM 10321 CA GLY B 718 172.780 184.503 250.196 1.00 78.07 C
ATOM 10322 C GLY B 718 171.273 184.635 250.180 1.00 78.07 C
ATOM 10323 O GLY B 718 170.588 183.940 250.937 1.00 78.07 O
ATOM 10324 N LEU B 719 170.741 185.523 249.341 1.00 78.80 N
ATOM 10325 CA LEU B 719 169.312 185.593 249.081 1.00 78.80 C
ATOM 10326 C LEU B 719 168.929 184.937 247.763 1.00 78.80 C
ATOM 10327 O LEU B 719 167.771 184.541 247.598 1.00 78.80 O
ATOM 10328 CB LEU B 719 168.846 187.057 249.084 1.00 78.80 C
ATOM 10329 CG LEU B 719 167.351 187.401 249.102 1.00 78.80 C
ATOM 10330 CD1 LEU B 719 166.706 187.281 247.730 1.00 78.80 C
ATOM 10331 CD2 LEU B 719 166.626 186.530 250.112 1.00 78.80 C
ATOM 10332 N GLY B 720 169.878 184.784 246.842 1.00 84.58 N
ATOM 10333 CA GLY B 720 169.598 184.247 245.525 1.00 84.58 C
ATOM 10334 C GLY B 720 169.433 182.743 245.461 1.00 84.58 C
ATOM 10335 O GLY B 720 169.596 182.144 244.393 1.00 84.58 O
ATOM 10336 N ALA B 721 169.118 182.116 246.593 1.00 90.12 N
ATOM 10337 CA ALA B 721 168.806 180.694 246.638 1.00 90.12 C
ATOM 10338 C ALA B 721 167.333 180.457 246.945 1.00 90.12 C
ATOM 10339 O ALA B 721 166.640 179.781 246.180 1.00 90.12 O
ATOM 10340 CB ALA B 721 169.692 179.989 247.674 1.00 90.12 C
ATOM 10341 N ALA B 722 166.836 181.009 248.050 1.00 88.49 N
ATOM 10342 CA ALA B 722 165.429 180.898 248.415 1.00 88.49 C
ATOM 10343 C ALA B 722 165.152 181.733 249.657 1.00 88.49 C
ATOM 10344 O ALA B 722 166.058 181.970 250.462 1.00 88.49 O
ATOM 10345 CB ALA B 722 165.042 179.438 248.655 1.00 88.49 C
ATOM 10346 N GLY B 723 163.912 182.183 249.828 1.00 85.73 N
ATOM 10347 CA GLY B 723 163.588 182.957 251.008 1.00 85.73 C
ATOM 10348 C GLY B 723 162.261 183.686 250.994 1.00 85.73 C
ATOM 10349 O GLY B 723 161.829 184.218 249.968 1.00 85.73 O
ATOM 10350 N LYS B 724 161.613 183.709 252.154 1.00 80.36 N
ATOM 10351 CA LYS B 724 160.431 184.522 252.402 1.00 80.36 C
ATOM 10352 C LYS B 724 160.914 185.950 252.683 1.00 80.36 C

ATOM 10353 O LYS B 724 162.063 186.299 252.402 1.00 80.36 O
ATOM 10354 CB LYS B 724 159.614 183.884 253.531 1.00 80.36 C
ATOM 10355 CG LYS B 724 158.259 184.511 253.868 1.00 80.36 C
ATOM 10356 CD LYS B 724 157.246 184.343 252.753 1.00 80.36 C
ATOM 10357 CE LYS B 724 155.897 184.907 253.171 1.00 80.36 C
ATOM 10358 NZ LYS B 724 154.896 184.839 252.074 1.00 80.36 N
ATOM 10359 N ALA B 725 160.045 186.806 253.231 1.00 74.31 N
ATOM 10360 CA ALA B 725 160.446 188.151 253.636 1.00 74.31 C
ATOM 10361 C ALA B 725 161.593 188.154 254.644 1.00 74.31 C
ATOM 10362 O ALA B 725 162.228 189.197 254.834 1.00 74.31 O
ATOM 10363 CB ALA B 725 159.247 188.901 254.217 1.00 74.31 C
ATOM 10364 N VAL B 726 161.868 187.021 255.300 1.00 69.95 N
ATOM 10365 CA VAL B 726 163.069 186.891 256.120 1.00 69.95 C
ATOM 10366 C VAL B 726 164.320 187.169 255.299 1.00 69.95 C
ATOM 10367 O VAL B 726 165.320 187.669 255.827 1.00 69.95 O
ATOM 10368 CB VAL B 726 163.124 185.492 256.761 1.00 69.95 C
ATOM 10369 CG1 VAL B 726 161.917 185.274 257.656 1.00 69.95 C
ATOM 10370 CG2 VAL B 726 163.201 184.422 255.686 1.00 69.95 C
ATOM 10371 N GLY B 727 164.292 186.855 254.005 1.00 67.26 N
ATOM 10372 CA GLY B 727 165.398 187.171 253.123 1.00 67.26 C
ATOM 10373 C GLY B 727 165.409 188.620 252.679 1.00 67.26 C
ATOM 10374 O GLY B 727 166.243 189.020 251.862 1.00 67.26 O
ATOM 10375 N VAL B 728 164.481 189.415 253.207 1.00 65.41 N
ATOM 10376 CA VAL B 728 164.457 190.852 252.969 1.00 65.41 C
ATOM 10377 C VAL B 728 164.629 191.558 254.304 1.00 65.41 C
ATOM 10378 O VAL B 728 165.143 192.680 254.366 1.00 65.41 O
ATOM 10379 CB VAL B 728 163.157 191.290 252.273 1.00 65.41 C
ATOM 10380 CG1 VAL B 728 163.097 192.803 252.170 1.00 65.41 C
ATOM 10381 CG2 VAL B 728 163.061 190.657 250.898 1.00 65.41 C
ATOM 10382 N ALA B 729 164.204 190.901 255.384 1.00 63.34 N
ATOM 10383 CA ALA B 729 164.454 191.441 256.715 1.00 63.34 C
ATOM 10384 C ALA B 729 165.945 191.474 257.015 1.00 63.34 C
ATOM 10385 O ALA B 729 166.443 192.423 257.632 1.00 63.34 O
ATOM 10386 CB ALA B 729 163.710 190.619 257.767 1.00 63.34 C

ATOM 10387 N ILE B 730 166.675 190.441 256.589 1.00 64.78 N
ATOM 10388 CA ILE B 730 168.127 190.443 256.731 1.00 64.78 C
ATOM 10389 C ILE B 730 168.743 191.579 255.930 1.00 64.78 C
ATOM 10390 O ILE B 730 169.796 192.112 256.299 1.00 64.78 O
ATOM 10391 CB ILE B 730 168.707 189.079 256.314 1.00 64.78 C
ATOM 10392 CG1 ILE B 730 168.210 187.982 257.256 1.00 64.78 C
ATOM 10393 CG2 ILE B 730 170.221 189.129 256.302 1.00 64.78 C
ATOM 10394 CD1 ILE B 730 168.524 186.584 256.780 1.00 64.78 C
ATOM 10395 N GLY B 731 168.104 191.974 254.829 1.00 62.69 N
ATOM 10396 CA GLY B 731 168.574 193.108 254.056 1.00 62.69 C
ATOM 10397 C GLY B 731 168.393 194.450 254.732 1.00 62.69 C
ATOM 10398 O GLY B 731 168.861 195.459 254.195 1.00 62.69 O
ATOM 10399 N ALA B 732 167.724 194.490 255.884 1.00 63.98 N
ATOM 10400 CA ALA B 732 167.556 195.729 256.635 1.00 63.98 C
ATOM 10401 C ALA B 732 168.646 195.889 257.691 1.00 63.98 C
ATOM 10402 O ALA B 732 169.382 196.881 257.688 1.00 63.98 O
ATOM 10403 CB ALA B 732 166.167 195.770 257.282 1.00 63.98 C
ATOM 10404 N VAL B 733 168.757 194.920 258.603 1.00 64.44 N
ATOM 10405 CA VAL B 733 169.817 194.965 259.607 1.00 64.44 C
ATOM 10406 C VAL B 733 171.182 194.905 258.938 1.00 64.44 C
ATOM 10407 O VAL B 733 172.141 195.541 259.391 1.00 64.44 O
ATOM 10408 CB VAL B 733 169.635 193.833 260.634 1.00 64.44 C
ATOM 10409 CG1 VAL B 733 168.347 194.031 261.410 1.00 64.44 C
ATOM 10410 CG2 VAL B 733 169.632 192.484 259.939 1.00 64.44 C
ATOM 10411 N GLY B 734 171.295 194.138 257.853 1.00 65.38 N
ATOM 10412 CA GLY B 734 172.521 194.151 257.078 1.00 65.38 C
ATOM 10413 C GLY B 734 172.822 195.510 256.482 1.00 65.38 C
ATOM 10414 O GLY B 734 173.988 195.885 256.338 1.00 65.38 O
ATOM 10415 N GLY B 735 171.782 196.268 256.136 1.00 66.13 N
ATOM 10416 CA GLY B 735 171.999 197.577 255.543 1.00 66.13 C
ATOM 10417 C GLY B 735 172.631 198.562 256.507 1.00 66.13 C
ATOM 10418 O GLY B 735 173.488 199.360 256.119 1.00 66.13 O
ATOM 10419 N ALA B 736 172.217 198.524 257.773 1.00 65.29 N
ATOM 10420 CA ALA B 736 172.756 199.460 258.754 1.00 65.29 C

ATOM 10421 C ALA B 736 174.207 199.135 259.083 1.00 65.29 C
ATOM 10422 O ALA B 736 175.073 200.016 259.055 1.00 65.29 O
ATOM 10423 CB ALA B 736 171.900 199.447 260.019 1.00 65.29 C
ATOM 10424 N VAL B 737 174.491 197.869 259.400 1.00 62.46 N
ATOM 10425 CA VAL B 737 175.845 197.484 259.781 1.00 62.46 C
ATOM 10426 C VAL B 737 176.814 197.665 258.622 1.00 62.46 C
ATOM 10427 O VAL B 737 178.006 197.915 258.834 1.00 62.46 O
ATOM 10428 CB VAL B 737 175.862 196.036 260.301 1.00 62.46 C
ATOM 10429 CG1 VAL B 737 175.496 195.075 259.189 1.00 62.46 C
ATOM 10430 CG2 VAL B 737 177.224 195.702 260.862 1.00 62.46 C
ATOM 10431 N ALA B 738 176.330 197.552 257.386 1.00 63.63 N
ATOM 10432 CA ALA B 738 177.196 197.742 256.230 1.00 63.63 C
ATOM 10433 C ALA B 738 177.568 199.198 255.999 1.00 63.63 C
ATOM 10434 O ALA B 738 178.356 199.476 255.089 1.00 63.63 O
ATOM 10435 CB ALA B 738 176.532 197.176 254.975 1.00 63.63 C
ATOM 10436 N SER B 739 177.022 200.128 256.781 1.00 68.07 N
ATOM 10437 CA SER B 739 177.423 201.526 256.717 1.00 68.07 C
ATOM 10438 C SER B 739 178.379 201.919 257.833 1.00 68.07 C
ATOM 10439 O SER B 739 179.099 202.913 257.689 1.00 68.07 O
ATOM 10440 CB SER B 739 176.192 202.437 256.766 1.00 68.07 C
ATOM 10441 OG SER B 739 176.568 203.803 256.738 1.00 68.07 O
ATOM 10442 N VAL B 740 178.399 201.171 258.932 1.00 70.40 N
ATOM 10443 CA VAL B 740 179.344 201.417 260.017 1.00 70.40 C
ATOM 10444 C VAL B 740 180.628 200.627 259.819 1.00 70.40 C
ATOM 10445 O VAL B 740 181.728 201.151 260.011 1.00 70.40 O
ATOM 10446 CB VAL B 740 178.687 201.092 261.374 1.00 70.40 C
ATOM 10447 CG1 VAL B 740 179.712 201.175 262.487 1.00 70.40 C
ATOM 10448 CG2 VAL B 740 177.537 202.046 261.642 1.00 70.40 C
ATOM 10449 N VAL B 741 180.514 199.353 259.434 1.00 70.09 N
ATOM 10450 CA VAL B 741 181.705 198.551 259.174 1.00 70.09 C
ATOM 10451 C VAL B 741 182.466 199.091 257.973 1.00 70.09 C
ATOM 10452 O VAL B 741 183.684 198.904 257.864 1.00 70.09 O
ATOM 10453 CB VAL B 741 181.322 197.073 258.985 1.00 70.09 C
ATOM 10454 CG1 VAL B 741 182.532 196.260 258.568 1.00 70.09 C

ATOM 10455 CG2 VAL B 741 180.731 196.521 260.268 1.00 70.09 C
ATOM 10456 N GLU B 742 181.774 199.768 257.057 1.00 78.32 N
ATOM 10457 CA GLU B 742 182.468 200.474 255.987 1.00 78.32 C
ATOM 10458 C GLU B 742 182.999 201.819 256.458 1.00 78.32 C
ATOM 10459 O GLU B 742 184.006 202.303 255.930 1.00 78.32 O
ATOM 10460 CB GLU B 742 181.541 200.664 254.788 1.00 78.32 C
ATOM 10461 CG GLU B 742 181.187 199.373 254.076 1.00 78.32 C
ATOM 10462 CD GLU B 742 182.389 198.729 253.416 1.00 78.32 C
ATOM 10463 OE1 GLU B 742 183.302 199.468 252.994 1.00 78.32 O
ATOM 10464 OE2 GLU B 742 182.419 197.485 253.315 1.00 78.32 O
ATOM 10465 N GLY B 743 182.342 202.432 257.442 1.00 77.59 N
ATOM 10466 CA GLY B 743 182.848 203.653 258.039 1.00 77.59 C
ATOM 10467 C GLY B 743 184.079 203.463 258.897 1.00 77.59 C
ATOM 10468 O GLY B 743 184.748 204.452 259.215 1.00 77.59 O
ATOM 10469 N VAL B 744 184.393 202.227 259.276 1.00 71.68 N
ATOM 10470 CA VAL B 744 185.602 201.924 260.026 1.00 71.68 C
ATOM 10471 C VAL B 744 186.560 201.072 259.195 1.00 71.68 C
ATOM 10472 O VAL B 744 187.424 200.397 259.737 1.00 71.68 O
ATOM 10473 CB VAL B 744 185.269 201.246 261.370 1.00 71.68 C
ATOM 10474 CG1 VAL B 744 184.837 199.803 261.152 1.00 71.68 C
ATOM 10475 CG2 VAL B 744 186.441 201.344 262.338 1.00 71.68 C
ATOM 10476 N ALA B 745 186.401 201.094 257.873 1.00 72.10 N
ATOM 10477 CA ALA B 745 187.333 200.439 256.967 1.00 72.10 C
ATOM 10478 C ALA B 745 188.216 201.415 256.213 1.00 72.10 C
ATOM 10479 O ALA B 745 189.333 201.055 255.838 1.00 72.10 O
ATOM 10480 CB ALA B 745 186.579 199.569 255.954 1.00 72.10 C
ATOM 10481 N THR B 746 187.742 202.641 255.985 1.00 72.52 N
ATOM 10482 CA THR B 746 188.613 203.691 255.476 1.00 72.52 C
ATOM 10483 C THR B 746 189.623 204.129 256.525 1.00 72.52 C
ATOM 10484 O THR B 746 190.669 204.684 256.176 1.00 72.52 O
ATOM 10485 CB THR B 746 187.780 204.887 255.012 1.00 72.52 C
ATOM 10486 OG1 THR B 746 186.855 204.461 254.004 1.00 72.52 O
ATOM 10487 CG2 THR B 746 188.672 205.972 254.434 1.00 72.52 C
ATOM 10488 N PHE B 747 189.334 203.875 257.801 1.00 66.38 N

ATOM 10489 CA PHE B 747 190.273 204.143 258.879 1.00 66.38 C
ATOM 10490 C PHE B 747 191.470 203.202 258.852 1.00 66.38 C
ATOM 10491 O PHE B 747 192.479 203.490 259.502 1.00 66.38 O
ATOM 10492 CB PHE B 747 189.537 204.041 260.218 1.00 66.38 C
ATOM 10493 CG PHE B 747 190.369 204.415 261.407 1.00 66.38 C
ATOM 10494 CD1 PHE B 747 190.644 205.741 261.687 1.00 66.38 C
ATOM 10495 CD2 PHE B 747 190.865 203.441 262.254 1.00 66.38 C
ATOM 10496 CE1 PHE B 747 191.405 206.087 262.784 1.00 66.38 C
ATOM 10497 CE2 PHE B 747 191.626 203.781 263.352 1.00 66.38 C
ATOM 10498 CZ PHE B 747 191.896 205.106 263.617 1.00 66.38 C
ATOM 10499 N LEU B 748 191.390 202.099 258.105 1.00 66.86 N
ATOM 10500 CA LEU B 748 192.496 201.161 257.956 1.00 66.86 C
ATOM 10501 C LEU B 748 193.203 201.310 256.614 1.00 66.86 C
ATOM 10502 O LEU B 748 193.745 200.335 256.083 1.00 66.86 O
ATOM 10503 CB LEU B 748 192.007 199.725 258.138 1.00 66.86 C
ATOM 10504 CG LEU B 748 191.536 199.338 259.538 1.00 66.86 C
ATOM 10505 CD1 LEU B 748 190.983 197.924 259.541 1.00 66.86 C
ATOM 10506 CD2 LEU B 748 192.674 199.472 260.529 1.00 66.86 C
ATOM 10507 N LYS B 749 193.206 202.515 256.053 1.00 71.12 N
ATOM 10508 CA LYS B 749 193.979 202.811 254.856 1.00 71.12 C
ATOM 10509 C LYS B 749 194.886 204.017 255.010 1.00 71.12 C
ATOM 10510 O LYS B 749 195.912 204.082 254.323 1.00 71.12 O
ATOM 10511 CB LYS B 749 193.050 203.034 253.654 1.00 71.12 C
ATOM 10512 CG LYS B 749 192.225 201.816 253.296 1.00 71.12 C
ATOM 10513 CD LYS B 749 193.115 200.706 252.771 1.00 71.12 C
ATOM 10514 CE LYS B 749 192.308 199.468 252.424 1.00 71.12 C
ATOM 10515 NZ LYS B 749 191.425 199.693 251.248 1.00 71.12 N
ATOM 10516 N ASN B 750 194.552 204.960 255.872 1.00 70.40 N
ATOM 10517 CA ASN B 750 195.465 206.018 256.257 1.00 70.40 C
ATOM 10518 C ASN B 750 196.553 205.418 257.131 1.00 70.40 C
ATOM 10519 O ASN B 750 196.249 204.955 258.239 1.00 70.40 O
ATOM 10520 CB ASN B 750 194.715 207.107 257.011 1.00 70.40 C
ATOM 10521 CG ASN B 750 193.730 207.841 256.135 1.00 70.40 C
ATOM 10522 OD1 ASN B 750 194.043 208.214 255.006 1.00 70.40 O

ATOM 10523 ND2 ASN B 750 192.520 208.029 256.640 1.00 70.40 N
ATOM 10524 N PRO B 751 197.816 205.400 256.697 1.00 71.46 N
ATOM 10525 CA PRO B 751 198.861 204.725 257.487 1.00 71.46 C
ATOM 10526 C PRO B 751 199.094 205.322 258.869 1.00 71.46 C
ATOM 10527 O PRO B 751 199.858 204.738 259.646 1.00 71.46 O
ATOM 10528 CB PRO B 751 200.108 204.862 256.605 1.00 71.46 C
ATOM 10529 CG PRO B 751 199.567 205.020 255.221 1.00 71.46 C
ATOM 10530 CD PRO B 751 198.311 205.825 255.379 1.00 71.46 C
ATOM 10531 N PHE B 752 198.471 206.453 259.202 1.00 69.53 N
ATOM 10532 CA PHE B 752 198.483 206.925 260.581 1.00 69.53 C
ATOM 10533 C PHE B 752 197.488 206.147 261.433 1.00 69.53 C
ATOM 10534 O PHE B 752 197.826 205.694 262.532 1.00 69.53 O
ATOM 10535 CB PHE B 752 198.163 208.418 260.630 1.00 69.53 C
ATOM 10536 CG PHE B 752 199.225 209.288 260.027 1.00 69.53 C
ATOM 10537 CD1 PHE B 752 200.505 208.806 259.821 1.00 69.53 C
ATOM 10538 CD2 PHE B 752 198.937 210.588 259.652 1.00 69.53 C
ATOM 10539 CE1 PHE B 752 201.477 209.607 259.263 1.00 69.53 C
ATOM 10540 CE2 PHE B 752 199.904 211.391 259.092 1.00 69.53 C
ATOM 10541 CZ PHE B 752 201.176 210.900 258.897 1.00 69.53 C
ATOM 10542 N GLY B 753 196.262 205.981 260.936 1.00 68.76 N
ATOM 10543 CA GLY B 753 195.253 205.263 261.697 1.00 68.76 C
ATOM 10544 C GLY B 753 195.601 203.803 261.911 1.00 68.76 C
ATOM 10545 O GLY B 753 195.417 203.268 263.008 1.00 68.76 O
ATOM 10546 N ALA B 754 196.099 203.135 260.867 1.00 66.24 N
ATOM 10547 CA ALA B 754 196.520 201.746 261.011 1.00 66.24 C
ATOM 10548 C ALA B 754 197.632 201.606 262.040 1.00 66.24 C
ATOM 10549 O ALA B 754 197.751 200.561 262.690 1.00 66.24 O
ATOM 10550 CB ALA B 754 196.971 201.188 259.662 1.00 66.24 C
ATOM 10551 N PHE B 755 198.455 202.642 262.200 1.00 64.78 N
ATOM 10552 CA PHE B 755 199.454 202.659 263.257 1.00 64.78 C
ATOM 10553 C PHE B 755 198.851 202.982 264.616 1.00 64.78 C
ATOM 10554 O PHE B 755 199.425 202.599 265.641 1.00 64.78 O
ATOM 10555 CB PHE B 755 200.546 203.675 262.920 1.00 64.78 C
ATOM 10556 CG PHE B 755 201.667 203.718 263.914 1.00 64.78 C

ATOM 10557 CD1 PHE B 755 202.635 202.732 263.927 1.00 64.78 C
ATOM 10558 CD2 PHE B 755 201.756 204.750 264.829 1.00 64.78 C
ATOM 10559 CE1 PHE B 755 203.669 202.772 264.838 1.00 64.78 C
ATOM 10560 CE2 PHE B 755 202.789 204.795 265.741 1.00 64.78 C
ATOM 10561 CZ PHE B 755 203.746 203.805 265.747 1.00 64.78 C
ATOM 10562 N THR B 756 197.709 203.667 264.647 1.00 65.57 N
ATOM 10563 CA THR B 756 197.034 203.989 265.896 1.00 65.57 C
ATOM 10564 C THR B 756 196.211 202.831 266.442 1.00 65.57 C
ATOM 10565 O THR B 756 195.722 202.919 267.573 1.00 65.57 O
ATOM 10566 CB THR B 756 196.128 205.209 265.712 1.00 65.57 C
ATOM 10567 OG1 THR B 756 195.147 204.929 264.706 1.00 65.57 O
ATOM 10568 CG2 THR B 756 196.945 206.422 265.298 1.00 65.57 C
ATOM 10569 N ILE B 757 196.042 201.762 265.672 1.00 65.08 N
ATOM 10570 CA ILE B 757 195.422 200.540 266.160 1.00 65.08 C
ATOM 10571 C ILE B 757 196.466 199.517 266.584 1.00 65.08 C
ATOM 10572 O ILE B 757 196.279 198.810 267.574 1.00 65.08 O
ATOM 10573 CB ILE B 757 194.472 199.951 265.096 1.00 65.08 C
ATOM 10574 CG1 ILE B 757 193.277 200.879 264.876 1.00 65.08 C
ATOM 10575 CG2 ILE B 757 194.021 198.560 265.499 1.00 65.08 C
ATOM 10576 CD1 ILE B 757 192.417 200.497 263.693 1.00 65.08 C
ATOM 10577 N ILE B 758 197.573 199.432 265.844 1.00 64.40 N
ATOM 10578 CA ILE B 758 198.636 198.504 266.211 1.00 64.40 C
ATOM 10579 C ILE B 758 199.263 198.902 267.540 1.00 64.40 C
ATOM 10580 O ILE B 758 199.767 198.046 268.277 1.00 64.40 O
ATOM 10581 CB ILE B 758 199.682 198.426 265.087 1.00 64.40 C
ATOM 10582 CG1 ILE B 758 199.044 197.868 263.815 1.00 64.40 C
ATOM 10583 CG2 ILE B 758 200.857 197.567 265.512 1.00 64.40 C
ATOM 10584 CD1 ILE B 758 199.917 197.988 262.593 1.00 64.40 C
ATOM 10585 N LEU B 759 199.244 200.193 267.874 1.00 64.11 N
ATOM 10586 CA LEU B 759 199.707 200.618 269.191 1.00 64.11 C
ATOM 10587 C LEU B 759 198.745 200.163 270.279 1.00 64.11 C
ATOM 10588 O LEU B 759 199.167 199.637 271.315 1.00 64.11 O
ATOM 10589 CB LEU B 759 199.876 202.136 269.230 1.00 64.11 C
ATOM 10590 CG LEU B 759 200.984 202.749 268.376 1.00 64.11 C

ATOM 10591 CD1 LEU B 759 200.910 204.263 268.444 1.00 64.11 C
ATOM 10592 CD2 LEU B 759 202.343 202.256 268.837 1.00 64.11 C
ATOM 10593 N VAL B 760 197.443 200.366 270.063 1.00 64.84 N
ATOM 10594 CA VAL B 760 196.453 200.004 271.072 1.00 64.84 C
ATOM 10595 C VAL B 760 196.449 198.504 271.321 1.00 64.84 C
ATOM 10596 O VAL B 760 196.265 198.056 272.459 1.00 64.84 O
ATOM 10597 CB VAL B 760 195.058 200.502 270.652 1.00 64.84 C
ATOM 10598 CG1 VAL B 760 194.010 200.020 271.636 1.00 64.84 C
ATOM 10599 CG2 VAL B 760 195.047 202.017 270.553 1.00 64.84 C
ATOM 10600 N ALA B 761 196.652 197.703 270.274 1.00 68.80 N
ATOM 10601 CA ALA B 761 196.664 196.255 270.449 1.00 68.80 C
ATOM 10602 C ALA B 761 197.878 195.803 271.249 1.00 68.80 C
ATOM 10603 O ALA B 761 197.761 194.948 272.134 1.00 68.80 O
ATOM 10604 CB ALA B 761 196.627 195.560 269.089 1.00 68.80 C
ATOM 10605 N ILE B 762 199.052 196.362 270.948 1.00 67.99 N
ATOM 10606 CA ILE B 762 200.265 195.979 271.663 1.00 67.99 C
ATOM 10607 C ILE B 762 200.162 196.355 273.135 1.00 67.99 C
ATOM 10608 O ILE B 762 200.634 195.621 274.011 1.00 67.99 O
ATOM 10609 CB ILE B 762 201.497 196.620 271.002 1.00 67.99 C
ATOM 10610 CG1 ILE B 762 201.680 196.079 269.583 1.00 67.99 C
ATOM 10611 CG2 ILE B 762 202.738 196.370 271.837 1.00 67.99 C
ATOM 10612 CD1 ILE B 762 202.706 196.835 268.771 1.00 67.99 C
ATOM 10613 N ALA B 763 199.548 197.501 273.432 1.00 70.88 N
ATOM 10614 CA ALA B 763 199.388 197.914 274.820 1.00 70.88 C
ATOM 10615 C ALA B 763 198.435 197.010 275.588 1.00 70.88 C
ATOM 10616 O ALA B 763 198.565 196.894 276.810 1.00 70.88 O
ATOM 10617 CB ALA B 763 198.899 199.361 274.886 1.00 70.88 C
ATOM 10618 N VAL B 764 197.485 196.371 274.902 1.00 73.84 N
ATOM 10619 CA VAL B 764 196.518 195.509 275.579 1.00 73.84 C
ATOM 10620 C VAL B 764 197.226 194.340 276.254 1.00 73.84 C
ATOM 10621 O VAL B 764 197.049 194.090 277.452 1.00 73.84 O
ATOM 10622 CB VAL B 764 195.448 195.017 274.591 1.00 73.84 C
ATOM 10623 CG1 VAL B 764 194.573 193.967 275.248 1.00 73.84 C
ATOM 10624 CG2 VAL B 764 194.603 196.182 274.110 1.00 73.84 C

ATOM 10625 N VAL B 765 198.029 193.600 275.487 1.00 75.59 N
ATOM 10626 CA VAL B 765 198.715 192.434 276.035 1.00 75.59 C
ATOM 10627 C VAL B 765 199.690 192.842 277.130 1.00 75.59 C
ATOM 10628 O VAL B 765 199.924 192.083 278.079 1.00 75.59 O
ATOM 10629 CB VAL B 765 199.423 191.656 274.909 1.00 75.59 C
ATOM 10630 CG1 VAL B 765 200.213 190.493 275.484 1.00 75.59 C
ATOM 10631 CG2 VAL B 765 198.409 191.166 273.887 1.00 75.59 C
ATOM 10632 N ILE B 766 200.272 194.038 277.026 1.00 76.39 N
ATOM 10633 CA ILE B 766 201.182 194.509 278.064 1.00 76.39 C
ATOM 10634 C ILE B 766 200.424 194.783 279.357 1.00 76.39 C
ATOM 10635 O ILE B 766 200.928 194.521 280.455 1.00 76.39 O
ATOM 10636 CB ILE B 766 201.947 195.753 277.580 1.00 76.39 C
ATOM 10637 CG1 ILE B 766 202.835 195.397 276.387 1.00 76.39 C
ATOM 10638 CG2 ILE B 766 202.778 196.337 278.709 1.00 76.39 C
ATOM 10639 CD1 ILE B 766 203.430 196.600 275.691 1.00 76.39 C
ATOM 10640 N ILE B 767 199.203 195.316 279.252 1.00 78.65 N
ATOM 10641 CA ILE B 767 198.391 195.563 280.437 1.00 78.65 C
ATOM 10642 C ILE B 767 198.031 194.265 281.145 1.00 78.65 C
ATOM 10643 O ILE B 767 197.758 194.273 282.350 1.00 78.65 O
ATOM 10644 CB ILE B 767 197.126 196.361 280.059 1.00 78.65 C
ATOM 10645 CG1 ILE B 767 197.513 197.712 279.459 1.00 78.65 C
ATOM 10646 CG2 ILE B 767 196.236 196.566 281.271 1.00 78.65 C
ATOM 10647 CD1 ILE B 767 198.295 198.595 280.404 1.00 78.65 C
ATOM 10648 N ILE B 768 198.025 193.142 280.424 1.00 81.20 N
ATOM 10649 CA ILE B 768 197.825 191.847 281.067 1.00 81.20 C
ATOM 10650 C ILE B 768 198.940 191.575 282.066 1.00 81.20 C
ATOM 10651 O ILE B 768 198.714 190.982 283.128 1.00 81.20 O
ATOM 10652 CB ILE B 768 197.734 190.734 280.008 1.00 81.20 C
ATOM 10653 CG1 ILE B 768 196.564 190.993 279.058 1.00 81.20 C
ATOM 10654 CG2 ILE B 768 197.599 189.377 280.676 1.00 81.20 C
ATOM 10655 CD1 ILE B 768 195.218 191.006 279.742 1.00 81.20 C
ATOM 10656 N TYR B 769 200.156 192.005 281.746 1.00 89.07 N
ATOM 10657 CA TYR B 769 201.309 191.769 282.604 1.00 89.07 C
ATOM 10658 C TYR B 769 202.058 193.066 282.889 1.00 89.07 C

ATOM 10659 O TYR B 769 201.509 193.993 283.485 1.00 89.07 O
ATOM 10660 CB TYR B 769 202.246 190.747 281.961 1.00 89.07 C
ATOM 10661 CG TYR B 769 203.457 190.409 282.797 1.00 89.07 C
ATOM 10662 CD1 TYR B 769 203.345 189.595 283.916 1.00 89.07 C
ATOM 10663 CD2 TYR B 769 204.713 190.895 282.463 1.00 89.07 C
ATOM 10664 CE1 TYR B 769 204.450 189.280 284.682 1.00 89.07 C
ATOM 10665 CE2 TYR B 769 205.824 190.585 283.222 1.00 89.07 C
ATOM 10666 CZ TYR B 769 205.687 189.778 284.331 1.00 89.07 C
ATOM 10667 OH TYR B 769 206.792 189.466 285.090 1.00 89.07 O
TER
HETATM10668 C1 NAG B1001 214.517 238.029 234.379 1.00 65.43 C
HETATM10669 C2 NAG B1001 215.187 239.214 233.637 1.00 65.43 C
HETATM10670 C3 NAG B1001 214.260 239.824 232.574 1.00 65.43 C
HETATM10671 C4 NAG B1001 213.474 238.788 231.782 1.00 65.43 C
HETATM10672 C5 NAG B1001 212.880 237.756 232.722 1.00 65.43 C
HETATM10673 C6 NAG B1001 212.161 236.636 232.014 1.00 65.43 C
HETATM10674 C7 NAG B1001 216.501 240.098 235.535 1.00 65.43 C
HETATM10675 C8 NAG B1001 216.742 241.297 236.404 1.00 65.43 C
HETATM10676 N2 NAG B1001 215.578 240.250 234.580 1.00 65.43 N
HETATM10677 O3 NAG B1001 215.073 240.576 231.685 1.00 65.43 O
HETATM10678 O4 NAG B1001 212.389 239.431 231.120 1.00 65.43 O
HETATM10679 O5 NAG B1001 213.943 237.156 233.458 1.00 65.43 O
HETATM10680 O6 NAG B1001 211.922 235.556 232.906 1.00 65.43 O
HETATM10681 O7 NAG B1001 217.101 239.041 235.703 1.00 65.43 O
HETATM10682 H1 NAG B1001 213.835 238.367 234.989 1.00 65.43 H
HETATM10683 H2 NAG B1001 215.984 238.876 233.182 1.00 65.43 H
HETATM10684 H3 NAG B1001 213.631 240.434 233.005 1.00 65.43 H
HETATM10685 H4 NAG B1001 214.053 238.349 231.131 1.00 65.43 H
HETATM10686 H5 NAG B1001 212.262 238.196 233.335 1.00 65.43 H
HETATM10687 H61 NAG B1001 212.707 236.321 231.275 1.00 65.43 H
HETATM10688 H62 NAG B1001 211.310 236.963 231.676 1.00 65.43 H
HETATM10689 H81 NAG B1001 216.010 241.386 237.043 1.00 65.43 H
HETATM10690 H82 NAG B1001 216.772 242.099 235.850 1.00 65.43 H
HETATM10691 H83 NAG B1001 217.586 241.195 236.883 1.00 65.43 H

HETATM10692	HN2	NAG B1001	215.169	241.060	234.510	1.00 65.43	H
HETATM10693	HO3	NAG B1001	215.267	240.085	230.970	1.00 65.43	H
HETATM10694	HO6	NAG B1001	212.285	235.736	233.696	1.00 65.43	H
HETATM10695	C1	NAG B1002	212.679	240.277	229.970	1.00 68.65	C
HETATM10696	C2	NAG B1002	211.912	241.562	230.215	1.00 68.65	C
HETATM10697	C3	NAG B1002	211.870	242.383	228.939	1.00 68.65	C
HETATM10698	C4	NAG B1002	213.128	242.167	228.101	1.00 68.65	C
HETATM10699	C5	NAG B1002	214.346	241.719	228.924	1.00 68.65	C
HETATM10700	C6	NAG B1002	214.905	242.821	229.799	1.00 68.65	C
HETATM10701	C7	NAG B1002	210.244	241.322	232.002	1.00 68.65	C
HETATM10702	C8	NAG B1002	208.812	241.034	232.327	1.00 68.65	C
HETATM10703	N2	NAG B1002	210.568	241.299	230.704	1.00 68.65	N
HETATM10704	O3	NAG B1002	211.740	243.763	229.273	1.00 68.65	O
HETATM10705	O4	NAG B1002	212.870	241.194	227.097	1.00 68.65	O
HETATM10706	O5	NAG B1002	214.069	240.586	229.774	1.00 68.65	O
HETATM10707	O6	NAG B1002	216.324	242.772	229.846	1.00 68.65	O
HETATM10708	O7	NAG B1002	211.073	241.560	232.876	1.00 68.65	O
HETATM10709	H1	NAG B1002	212.328	239.823	229.179	1.00 68.65	H
HETATM10710	H2	NAG B1002	212.388	242.084	230.887	1.00 68.65	H
HETATM10711	H3	NAG B1002	211.106	242.089	228.409	1.00 68.65	H
HETATM10712	H4	NAG B1002	213.348	243.006	227.658	1.00 68.65	H
HETATM10713	H5	NAG B1002	215.049	241.461	228.299	1.00 68.65	H
HETATM10714	H61	NAG B1002	214.555	242.749	230.704	1.00 68.65	H
HETATM10715	H62	NAG B1002	214.639	243.685	229.435	1.00 68.65	H
HETATM10716	H81	NAG B1002	208.624	240.090	232.168	1.00 68.65	H
HETATM10717	H82	NAG B1002	208.236	241.583	231.763	1.00 68.65	H
HETATM10718	H83	NAG B1002	208.649	241.245	233.265	1.00 68.65	H
HETATM10719	HN2	NAG B1002	209.913	241.120	230.095	1.00 68.65	H
HETATM10720	HO4	NAG B1002	213.639	240.873	226.790	1.00 68.65	H
HETATM10721	HO6	NAG B1002	216.653	243.591	229.749	1.00 68.65	H
HETATM10722	C1	NAG B1003	210.621	244.444	228.637	1.00 69.84	C
HETATM10723	C2	NAG B1003	210.941	244.631	227.152	1.00 69.84	C
HETATM10724	C3	NAG B1003	209.794	245.357	226.455	1.00 69.84	C
HETATM10725	C4	NAG B1003	208.478	244.632	226.706	1.00 69.84	C

HETATM10726	C5	NAG B1003	208.255	244.437	228.204	1.00	69.84	C
HETATM10727	C6	NAG B1003	207.018	243.629	228.520	1.00	69.84	C
HETATM10728	C7	NAG B1003	213.027	245.158	225.959	1.00	69.84	C
HETATM10729	C8	NAG B1003	214.273	245.992	225.961	1.00	69.84	C
HETATM10730	N2	NAG B1003	212.189	245.357	226.982	1.00	69.84	N
HETATM10731	O3	NAG B1003	210.050	245.425	225.057	1.00	69.84	O
HETATM10732	O4	NAG B1003	207.399	245.383	226.161	1.00	69.84	O
HETATM10733	O5	NAG B1003	209.367	243.735	228.779	1.00	69.84	O
HETATM10734	O6	NAG B1003	207.307	242.568	229.420	1.00	69.84	O
HETATM10735	O7	NAG B1003	212.793	244.341	225.074	1.00	69.84	O
HETATM10736	H1	NAG B1003	210.523	245.327	229.044	1.00	69.84	H
HETATM10737	H2	NAG B1003	211.023	243.753	226.732	1.00	69.84	H
HETATM10738	H3	NAG B1003	209.726	246.262	226.812	1.00	69.84	H
HETATM10739	H4	NAG B1003	208.509	243.759	226.274	1.00	69.84	H
HETATM10740	H5	NAG B1003	208.178	245.312	228.629	1.00	69.84	H
HETATM10741	H61	NAG B1003	206.658	243.258	227.692	1.00	69.84	H
HETATM10742	H62	NAG B1003	206.351	244.216	228.922	1.00	69.84	H
HETATM10743	H81	NAG B1003	214.487	246.254	226.876	1.00	69.84	H
HETATM10744	H82	NAG B1003	214.136	246.789	225.416	1.00	69.84	H
HETATM10745	H83	NAG B1003	215.013	245.469	225.596	1.00	69.84	H
HETATM10746	HN2	NAG B1003	212.417	245.973	227.616	1.00	69.84	H
HETATM10747	HO3	NAG B1003	209.335	245.744	224.639	1.00	69.84	H
HETATM10748	HO4	NAG B1003	206.862	245.655	226.813	1.00	69.84	H
HETATM10749	HO6	NAG B1003	208.140	242.651	229.718	1.00	69.84	H
HETATM10750	C1	NAG B1004	203.123	244.250	198.016	1.00	72.92	C
HETATM10751	C2	NAG B1004	204.086	245.334	197.507	1.00	72.92	C
HETATM10752	C3	NAG B1004	203.577	245.930	196.195	1.00	72.92	C
HETATM10753	C4	NAG B1004	203.285	244.833	195.182	1.00	72.92	C
HETATM10754	C5	NAG B1004	202.328	243.816	195.790	1.00	72.92	C
HETATM10755	C6	NAG B1004	202.027	242.658	194.868	1.00	72.92	C
HETATM10756	C7	NAG B1004	205.104	246.284	199.533	1.00	72.92	C
HETATM10757	C8	NAG B1004	205.157	247.467	200.447	1.00	72.92	C
HETATM10758	N2	NAG B1004	204.265	246.383	198.498	1.00	72.92	N
HETATM10759	O3	NAG B1004	204.548	246.828	195.670	1.00	72.92	O

HETATM10760	O4	NAG B1004	202.694	245.392	194.015	1.00	72.92	O
HETATM10761	O5	NAG B1004	202.906	243.270	196.984	1.00	72.92	O
HETATM10762	O6	NAG B1004	201.174	243.054	193.803	1.00	72.92	O
HETATM10763	O7	NAG B1004	205.778	245.280	199.728	1.00	72.92	O
HETATM10764	H1	NAG B1004	202.272	244.659	198.260	1.00	72.92	H
HETATM10765	H2	NAG B1004	204.953	244.917	197.342	1.00	72.92	H
HETATM10766	H3	NAG B1004	202.755	246.425	196.373	1.00	72.92	H
HETATM10767	H4	NAG B1004	204.118	244.387	194.939	1.00	72.92	H
HETATM10768	H5	NAG B1004	201.495	244.269	196.018	1.00	72.92	H
HETATM10769	H61	NAG B1004	201.590	241.950	195.377	1.00	72.92	H
HETATM10770	H62	NAG B1004	202.861	242.319	194.495	1.00	72.92	H
HETATM10771	H81	NAG B1004	204.247	247.732	200.681	1.00	72.92	H
HETATM10772	H82	NAG B1004	205.606	248.206	199.995	1.00	72.92	H
HETATM10773	H83	NAG B1004	205.645	247.229	201.258	1.00	72.92	H
HETATM10774	HN2	NAG B1004	203.791	247.156	198.401	1.00	72.92	H
HETATM10775	HO3	NAG B1004	204.209	247.243	194.962	1.00	72.92	H
HETATM10776	HO4	NAG B1004	202.650	246.275	194.097	1.00	72.92	H
HETATM10777	HO6	NAG B1004	201.265	243.925	193.654	1.00	72.92	H
HETATM10778	C1	NAG B1005	190.294	246.947	198.629	1.00	87.17	C
HETATM10779	C2	NAG B1005	190.367	246.904	200.171	1.00	87.17	C
HETATM10780	C3	NAG B1005	189.644	248.110	200.790	1.00	87.17	C
HETATM10781	C4	NAG B1005	190.095	249.413	200.147	1.00	87.17	C
HETATM10782	C5	NAG B1005	189.910	249.319	198.644	1.00	87.17	C
HETATM10783	C6	NAG B1005	190.346	250.564	197.907	1.00	87.17	C
HETATM10784	C7	NAG B1005	189.833	245.290	201.950	1.00	87.17	C
HETATM10785	C8	NAG B1005	189.172	243.983	202.275	1.00	87.17	C
HETATM10786	N2	NAG B1005	189.793	245.664	200.666	1.00	87.17	N
HETATM10787	O3	NAG B1005	189.903	248.170	202.187	1.00	87.17	O
HETATM10788	O4	NAG B1005	189.335	250.502	200.655	1.00	87.17	O
HETATM10789	O5	NAG B1005	190.711	248.238	198.156	1.00	87.17	O
HETATM10790	O6	NAG B1005	189.704	250.667	196.643	1.00	87.17	O
HETATM10791	O7	NAG B1005	190.369	245.979	202.814	1.00	87.17	O
HETATM10792	H1	NAG B1005	189.372	246.781	198.352	1.00	87.17	H
HETATM10793	H2	NAG B1005	191.305	246.944	200.431	1.00	87.17	H

HETATM10794	H3	NAG B1005	188.684	248.010	200.648	1.00	87.17	H
HETATM10795	H4	NAG B1005	191.040	249.560	200.347	1.00	87.17	H
HETATM10796	H5	NAG B1005	188.972	249.140	198.447	1.00	87.17	H
HETATM10797	H61	NAG B1005	191.310	250.542	197.776	1.00	87.17	H
HETATM10798	H62	NAG B1005	190.116	251.349	198.435	1.00	87.17	H
HETATM10799	H81	NAG B1005	188.206	244.109	202.314	1.00	87.17	H
HETATM10800	H82	NAG B1005	189.494	243.664	203.138	1.00	87.17	H
HETATM10801	H83	NAG B1005	189.385	243.334	201.579	1.00	87.17	H
HETATM10802	HN2	NAG B1005	189.376	245.115	200.070	1.00	87.17	H
HETATM10803	HO3	NAG B1005	189.217	247.824	202.633	1.00	87.17	H
HETATM10804	HO4	NAG B1005	189.834	251.237	200.649	1.00	87.17	H
HETATM10805	HO6	NAG B1005	188.833	250.534	196.748	1.00	87.17	H
HETATM10806	C1	NAG B1006	215.515	249.434	203.778	1.00	52.84	C
HETATM10807	C2	NAG B1006	216.974	249.835	203.753	1.00	52.84	C
HETATM10808	C3	NAG B1006	217.505	249.731	202.335	1.00	52.84	C
HETATM10809	C4	NAG B1006	217.316	248.309	201.824	1.00	52.84	C
HETATM10810	C5	NAG B1006	215.860	247.859	201.975	1.00	52.84	C
HETATM10811	C6	NAG B1006	215.685	246.381	201.710	1.00	52.84	C
HETATM10812	C7	NAG B1006	217.132	251.440	205.597	1.00	52.84	C
HETATM10813	C8	NAG B1006	217.375	252.867	205.986	1.00	52.84	C
HETATM10814	N2	NAG B1006	217.176	251.171	204.288	1.00	52.84	N
HETATM10815	O3	NAG B1006	218.882	250.089	202.308	1.00	52.84	O
HETATM10816	O4	NAG B1006	217.688	248.234	200.453	1.00	52.84	O
HETATM10817	O5	NAG B1006	215.382	248.089	203.312	1.00	52.84	O
HETATM10818	O6	NAG B1006	214.342	246.058	201.380	1.00	52.84	O
HETATM10819	O7	NAG B1006	216.900	250.570	206.430	1.00	52.84	O
HETATM10820	H1	NAG B1006	215.008	250.030	203.195	1.00	52.84	H
HETATM10821	H2	NAG B1006	217.469	249.203	204.307	1.00	52.84	H
HETATM10822	H3	NAG B1006	217.007	250.345	201.764	1.00	52.84	H
HETATM10823	H4	NAG B1006	217.889	247.711	202.340	1.00	52.84	H
HETATM10824	H5	NAG B1006	215.305	248.360	201.349	1.00	52.84	H
HETATM10825	H61	NAG B1006	215.939	245.888	202.512	1.00	52.84	H
HETATM10826	H62	NAG B1006	216.269	246.114	200.976	1.00	52.84	H
HETATM10827	H81	NAG B1006	216.596	253.408	205.758	1.00	52.84	H

HETATM10828 H82 NAG B1006 218.158 253.205 205.511 1.00 52.84 H
HETATM10829 H83 NAG B1006 217.534 252.915 206.948 1.00 52.84 H
HETATM10830 HN2 NAG B1006 217.359 251.849 203.706 1.00 52.84 H
HETATM10831 HO3 NAG B1006 218.963 250.899 201.954 1.00 52.84 H
HETATM10832 HO4 NAG B1006 218.397 248.749 200.310 1.00 52.84 H
HETATM10833 HO6 NAG B1006 214.288 245.189 201.206 1.00 52.84 H
HETATM10834 C1 NAG B1007 191.945 232.876 166.433 1.00103.20 C
HETATM10835 C2 NAG B1007 190.938 234.044 166.554 1.00103.20 C
HETATM10836 C3 NAG B1007 191.231 235.175 165.556 1.00103.20 C
HETATM10837 C4 NAG B1007 192.718 235.486 165.438 1.00103.20 C
HETATM10838 C5 NAG B1007 193.537 234.212 165.315 1.00103.20 C
HETATM10839 C6 NAG B1007 195.029 234.465 165.319 1.00103.20 C
HETATM10840 C7 NAG B1007 188.486 234.298 166.513 1.00103.20 C
HETATM10841 C8 NAG B1007 187.177 233.606 166.262 1.00103.20 C
HETATM10842 N2 NAG B1007 189.584 233.547 166.366 1.00103.20 N
HETATM10843 O3 NAG B1007 190.566 236.313 166.094 1.00103.20 O
HETATM10844 O4 NAG B1007 192.963 236.293 164.290 1.00103.20 O
HETATM10845 O5 NAG B1007 193.257 233.374 166.438 1.00103.20 O
HETATM10846 O6 NAG B1007 195.744 233.365 165.866 1.00103.20 O
HETATM10847 O7 NAG B1007 188.545 235.483 166.831 1.00103.20 O
HETATM10848 H1 NAG B1007 191.785 232.388 165.604 1.00103.20 H
HETATM10849 H2 NAG B1007 191.021 234.443 167.440 1.00103.20 H
HETATM10850 H3 NAG B1007 190.862 234.941 164.685 1.00103.20 H
HETATM10851 H4 NAG B1007 193.006 235.966 166.235 1.00103.20 H
HETATM10852 H5 NAG B1007 193.288 233.748 164.493 1.00103.20 H
HETATM10853 H61 NAG B1007 195.215 235.263 165.852 1.00103.20 H
HETATM10854 H62 NAG B1007 195.331 234.622 164.406 1.00103.20 H
HETATM10855 H81 NAG B1007 187.087 233.421 165.309 1.00103.20 H
HETATM10856 H82 NAG B1007 186.443 234.182 166.552 1.00103.20 H
HETATM10857 H83 NAG B1007 187.152 232.766 166.756 1.00103.20 H
HETATM10858 HN2 NAG B1007 189.477 232.675 166.125 1.00103.20 H
HETATM10859 HO4 NAG B1007 192.268 236.248 163.741 1.00103.20 H
HETATM10860 HO6 NAG B1007 196.356 233.671 166.431 1.00103.20 H
HETATM10861 C1 NAG B1008 190.485 237.520 165.298 1.00104.00 C

HETATM10862	C2	NAG B1008	191.416	238.565	165.934	1.00104.00	C
HETATM10863	C3	NAG B1008	191.379	239.856	165.124	1.00104.00	C
HETATM10864	C4	NAG B1008	191.690	239.571	163.661	1.00104.00	C
HETATM10865	C5	NAG B1008	190.746	238.498	163.127	1.00104.00	C
HETATM10866	C6	NAG B1008	191.040	238.102	161.700	1.00104.00	C
HETATM10867	C7	NAG B1008	191.592	238.177	168.359	1.00104.00	C
HETATM10868	C8	NAG B1008	191.097	238.584	169.715	1.00104.00	C
HETATM10869	N2	NAG B1008	191.051	238.823	167.319	1.00104.00	N
HETATM10870	O3	NAG B1008	192.321	240.781	165.655	1.00104.00	O
HETATM10871	O4	NAG B1008	191.540	240.760	162.894	1.00104.00	O
HETATM10872	O5	NAG B1008	190.865	237.310	163.923	1.00104.00	O
HETATM10873	O6	NAG B1008	190.041	238.584	160.812	1.00104.00	O
HETATM10874	O7	NAG B1008	192.441	237.306	168.214	1.00104.00	O
HETATM10875	H1	NAG B1008	189.572	237.857	165.327	1.00104.00	H
HETATM10876	H2	NAG B1008	192.329	238.226	165.904	1.00104.00	H
HETATM10877	H3	NAG B1008	190.486	240.245	165.187	1.00104.00	H
HETATM10878	H4	NAG B1008	192.610	239.256	163.588	1.00104.00	H
HETATM10879	H5	NAG B1008	189.829	238.828	163.183	1.00104.00	H
HETATM10880	H61	NAG B1008	191.073	237.129	161.644	1.00104.00	H
HETATM10881	H62	NAG B1008	191.904	238.471	161.440	1.00104.00	H
HETATM10882	H81	NAG B1008	190.122	238.570	169.728	1.00104.00	H
HETATM10883	H82	NAG B1008	191.415	239.483	169.921	1.00104.00	H
HETATM10884	H83	NAG B1008	191.438	237.959	170.382	1.00104.00	H
HETATM10885	HN2	NAG B1008	190.425	239.464	167.487	1.00104.00	H
HETATM10886	HO3	NAG B1008	191.887	241.429	166.080	1.00104.00	H
HETATM10887	HO4	NAG B1008	191.641	241.467	163.423	1.00104.00	H
HETATM10888	HO6	NAG B1008	189.287	238.132	160.938	1.00104.00	H
HETATM10889	C1	NAG B1009	196.684	224.746	155.647	1.00105.39	C
HETATM10890	C2	NAG B1009	195.636	225.837	155.465	1.00105.39	C
HETATM10891	C3	NAG B1009	195.579	226.262	154.005	1.00105.39	C
HETATM10892	C4	NAG B1009	196.967	226.656	153.515	1.00105.39	C
HETATM10893	C5	NAG B1009	197.971	225.545	153.809	1.00105.39	C
HETATM10894	C6	NAG B1009	199.394	225.919	153.463	1.00105.39	C
HETATM10895	C7	NAG B1009	193.888	225.553	157.167	1.00105.39	C

HETATM10896	C8	NAG B1009	192.524	225.005	157.464	1.00105.39	C
HETATM10897	N2	NAG B1009	194.332	225.381	155.917	1.00105.39	N
HETATM10898	O3	NAG B1009	194.675	227.350	153.858	1.00105.39	O
HETATM10899	O4	NAG B1009	196.943	226.903	152.113	1.00105.39	O
HETATM10900	O5	NAG B1009	197.954	225.223	155.208	1.00105.39	O
HETATM10901	O6	NAG B1009	200.333	225.241	154.287	1.00105.39	O
HETATM10902	O7	NAG B1009	194.560	226.122	158.023	1.00105.39	O
HETATM10903	H1	NAG B1009	196.418	223.965	155.125	1.00105.39	H
HETATM10904	H2	NAG B1009	195.906	226.616	155.990	1.00105.39	H
HETATM10905	H3	NAG B1009	195.263	225.509	153.473	1.00105.39	H
HETATM10906	H4	NAG B1009	197.244	227.467	153.980	1.00105.39	H
HETATM10907	H5	NAG B1009	197.723	224.751	153.299	1.00105.39	H
HETATM10908	H61	NAG B1009	199.504	226.881	153.571	1.00105.39	H
HETATM10909	H62	NAG B1009	199.560	225.686	152.532	1.00105.39	H
HETATM10910	H81	NAG B1009	192.581	224.038	157.580	1.00105.39	H
HETATM10911	H82	NAG B1009	191.919	225.206	156.726	1.00105.39	H
HETATM10912	H83	NAG B1009	192.184	225.409	158.285	1.00105.39	H
HETATM10913	HN2	NAG B1009	193.796	224.944	155.322	1.00105.39	H
HETATM10914	HO3	NAG B1009	194.586	227.547	152.996	1.00105.39	H
HETATM10915	HO4	NAG B1009	197.704	227.290	151.868	1.00105.39	H
HETATM10916	HO6	NAG B1009	199.908	224.817	154.940	1.00105.39	H
HETATM10917	C1	NAG B1010	227.267	208.337	210.383	1.00 56.03	C
HETATM10918	C2	NAG B1010	228.285	208.001	211.470	1.00 56.03	C
HETATM10919	C3	NAG B1010	229.468	208.965	211.390	1.00 56.03	C
HETATM10920	C4	NAG B1010	230.039	208.998	209.979	1.00 56.03	C
HETATM10921	C5	NAG B1010	228.936	209.241	208.952	1.00 56.03	C
HETATM10922	C6	NAG B1010	229.421	209.131	207.525	1.00 56.03	C
HETATM10923	C7	NAG B1010	228.288	207.618	213.897	1.00 56.03	C
HETATM10924	C8	NAG B1010	227.503	207.727	215.171	1.00 56.03	C
HETATM10925	N2	NAG B1010	227.672	208.040	212.787	1.00 56.03	N
HETATM10926	O3	NAG B1010	230.491	208.574	212.296	1.00 56.03	O
HETATM10927	O4	NAG B1010	231.000	210.041	209.878	1.00 56.03	O
HETATM10928	O5	NAG B1010	227.893	208.270	209.111	1.00 56.03	O
HETATM10929	O6	NAG B1010	228.486	209.697	206.616	1.00 56.03	O

HETATM10930	O7	NAG B1010	229.434	207.179	213.876	1.00	56.03	O
HETATM10931	H1	NAG B1010	226.926	209.239	210.523	1.00	56.03	H
HETATM10932	H2	NAG B1010	228.624	207.101	211.305	1.00	56.03	H
HETATM10933	H3	NAG B1010	229.163	209.862	211.625	1.00	56.03	H
HETATM10934	H4	NAG B1010	230.474	208.144	209.795	1.00	56.03	H
HETATM10935	H5	NAG B1010	228.566	210.131	209.097	1.00	56.03	H
HETATM10936	H61	NAG B1010	229.555	208.189	207.305	1.00	56.03	H
HETATM10937	H62	NAG B1010	230.272	209.598	207.442	1.00	56.03	H
HETATM10938	H81	NAG B1010	226.916	208.505	215.129	1.00	56.03	H
HETATM10939	H82	NAG B1010	228.118	207.824	215.921	1.00	56.03	H
HETATM10940	H83	NAG B1010	226.969	206.921	215.293	1.00	56.03	H
HETATM10941	HN2	NAG B1010	226.819	208.352	212.857	1.00	56.03	H
HETATM10942	HO3	NAG B1010	230.471	209.102	213.010	1.00	56.03	H
HETATM10943	HO4	NAG B1010	231.551	209.873	209.202	1.00	56.03	H
HETATM10944	HO6	NAG B1010	228.493	209.234	205.858	1.00	56.03	H
HETATM10945	C1	NAG B1011	224.947	217.094	209.717	1.00	57.20	C
HETATM10946	C2	NAG B1011	226.311	217.696	209.434	1.00	57.20	C
HETATM10947	C3	NAG B1011	226.178	218.748	208.346	1.00	57.20	C
HETATM10948	C4	NAG B1011	225.517	218.141	207.116	1.00	57.20	C
HETATM10949	C5	NAG B1011	224.218	217.425	207.492	1.00	57.20	C
HETATM10950	C6	NAG B1011	223.605	216.663	206.342	1.00	57.20	C
HETATM10951	C7	NAG B1011	227.707	217.586	211.451	1.00	57.20	C
HETATM10952	C8	NAG B1011	228.209	218.327	212.655	1.00	57.20	C
HETATM10953	N2	NAG B1011	226.891	218.267	210.638	1.00	57.20	N
HETATM10954	O3	NAG B1011	227.460	219.273	208.023	1.00	57.20	O
HETATM10955	O4	NAG B1011	225.226	219.160	206.166	1.00	57.20	O
HETATM10956	O5	NAG B1011	224.452	216.473	208.542	1.00	57.20	O
HETATM10957	O6	NAG B1011	222.273	216.266	206.634	1.00	57.20	O
HETATM10958	O7	NAG B1011	228.024	216.421	211.227	1.00	57.20	O
HETATM10959	H1	NAG B1011	224.333	217.799	209.994	1.00	57.20	H
HETATM10960	H2	NAG B1011	226.896	216.994	209.091	1.00	57.20	H
HETATM10961	H3	NAG B1011	225.612	219.470	208.675	1.00	57.20	H
HETATM10962	H4	NAG B1011	226.128	217.496	206.716	1.00	57.20	H
HETATM10963	H5	NAG B1011	223.573	218.086	207.807	1.00	57.20	H

HETATM10964	H61	NAG	B1011	224.143	215.869	206.164	1.00 57.20	H
HETATM10965	H62	NAG	B1011	223.601	217.234	205.550	1.00 57.20	H
HETATM10966	H81	NAG	B1011	227.454	218.608	213.205	1.00 57.20	H
HETATM10967	H82	NAG	B1011	228.717	219.113	212.378	1.00 57.20	H
HETATM10968	H83	NAG	B1011	228.786	217.741	213.179	1.00 57.20	H
HETATM10969	HN2	NAG	B1011	226.683	219.129	210.853	1.00 57.20	H
HETATM10970	HO3	NAG	B1011	227.551	220.063	208.418	1.00 57.20	H
HETATM10971	HO4	NAG	B1011	225.756	219.857	206.311	1.00 57.20	H
HETATM10972	HO6	NAG	B1011	222.059	216.530	207.454	1.00 57.20	H
HETATM10973	C1	NAG	B1012	211.540	235.431	185.159	1.00144.27	C
HETATM10974	C2	NAG	B1012	211.740	236.944	185.194	1.00144.27	C
HETATM10975	C3	NAG	B1012	213.202	237.282	184.918	1.00144.27	C
HETATM10976	C4	NAG	B1012	214.117	236.504	185.855	1.00144.27	C
HETATM10977	C5	NAG	B1012	213.784	235.012	185.826	1.00144.27	C
HETATM10978	C6	NAG	B1012	214.574	234.207	186.833	1.00144.27	C
HETATM10979	C7	NAG	B1012	210.590	238.906	184.258	1.00144.27	C
HETATM10980	C8	NAG	B1012	209.669	239.403	183.185	1.00144.27	C
HETATM10981	N2	NAG	B1012	210.872	237.600	184.228	1.00144.27	N
HETATM10982	O3	NAG	B1012	213.416	238.678	185.090	1.00144.27	O
HETATM10983	O4	NAG	B1012	215.474	236.683	185.462	1.00144.27	O
HETATM10984	O5	NAG	B1012	212.395	234.811	186.127	1.00144.27	O
HETATM10985	O6	NAG	B1012	214.295	234.615	188.165	1.00144.27	O
HETATM10986	O7	NAG	B1012	211.064	239.654	185.110	1.00144.27	O
HETATM10987	H1	NAG	B1012	211.757	235.094	184.268	1.00144.27	H
HETATM10988	H2	NAG	B1012	211.514	237.268	186.086	1.00144.27	H
HETATM10989	H3	NAG	B1012	213.415	237.037	183.998	1.00144.27	H
HETATM10990	H4	NAG	B1012	214.000	236.838	186.765	1.00144.27	H
HETATM10991	H5	NAG	B1012	213.968	234.664	184.932	1.00144.27	H
HETATM10992	H61	NAG	B1012	215.527	234.331	186.660	1.00144.27	H
HETATM10993	H62	NAG	B1012	214.356	233.261	186.733	1.00144.27	H
HETATM10994	H81	NAG	B1012	208.828	238.913	183.236	1.00144.27	H
HETATM10995	H82	NAG	B1012	210.074	239.263	182.309	1.00144.27	H
HETATM10996	H83	NAG	B1012	209.497	240.355	183.314	1.00144.27	H
HETATM10997	HN2	NAG	B1012	210.485	237.091	183.578	1.00144.27	H

HETATM10998	HO3	NAG	B1012	214.115	238.932	184.605	1.00144.27	H
HETATM10999	HO4	NAG	B1012	215.505	236.908	184.604	1.00144.27	H
HETATM11000	HO6	NAG	B1012	214.907	234.272	188.710	1.00144.27	H
HETATM11001	C1	NAG	B1013	212.994	213.162	156.850	1.00130.73	C
HETATM11002	C2	NAG	B1013	214.338	213.204	157.599	1.00130.73	C
HETATM11003	C3	NAG	B1013	215.506	213.041	156.624	1.00130.73	C
HETATM11004	C4	NAG	B1013	215.318	211.806	155.754	1.00130.73	C
HETATM11005	C5	NAG	B1013	213.970	211.869	155.052	1.00130.73	C
HETATM11006	C6	NAG	B1013	213.654	210.622	154.258	1.00130.73	C
HETATM11007	C7	NAG	B1013	213.960	214.631	159.569	1.00130.73	C
HETATM11008	C8	NAG	B1013	214.203	215.976	160.184	1.00130.73	C
HETATM11009	N2	NAG	B1013	214.476	214.443	158.349	1.00130.73	N
HETATM11010	O3	NAG	B1013	216.715	212.924	157.364	1.00130.73	O
HETATM11011	O4	NAG	B1013	216.352	211.732	154.780	1.00130.73	O
HETATM11012	O5	NAG	B1013	212.932	211.992	156.031	1.00130.73	O
HETATM11013	O6	NAG	B1013	214.719	210.264	153.389	1.00130.73	O
HETATM11014	O7	NAG	B1013	213.317	213.759	160.146	1.00130.73	O
HETATM11015	H1	NAG	B1013	212.918	213.955	156.287	1.00130.73	H
HETATM11016	H2	NAG	B1013	214.362	212.455	158.225	1.00130.73	H
HETATM11017	H3	NAG	B1013	215.560	213.828	156.050	1.00130.73	H
HETATM11018	H4	NAG	B1013	215.347	211.010	156.319	1.00130.73	H
HETATM11019	H5	NAG	B1013	213.953	212.642	154.456	1.00130.73	H
HETATM11020	H61	NAG	B1013	212.849	210.780	153.729	1.00130.73	H
HETATM11021	H62	NAG	B1013	213.489	209.887	154.880	1.00130.73	H
HETATM11022	H81	NAG	B1013	213.795	216.667	159.630	1.00130.73	H
HETATM11023	H82	NAG	B1013	215.164	216.135	160.246	1.00130.73	H
HETATM11024	H83	NAG	B1013	213.808	216.000	161.076	1.00130.73	H
HETATM11025	HN2	NAG	B1013	214.944	215.127	157.970	1.00130.73	H
HETATM11026	HO3	NAG	B1013	216.709	212.156	157.811	1.00130.73	H
HETATM11027	HO4	NAG	B1013	216.238	212.377	154.180	1.00130.73	H
HETATM11028	HO6	NAG	B1013	214.520	209.496	152.991	1.00130.73	H
HETATM11029	C1	NAG	B1014	174.157	203.506	155.498	1.00156.34	C
HETATM11030	C2	NAG	B1014	173.629	204.923	155.316	1.00156.34	C
HETATM11031	C3	NAG	B1014	173.794	205.349	153.865	1.00156.34	C

HETATM11032	C4	NAG B1014	175.245	205.180	153.433	1.00	56.34	C
HETATM11033	C5	NAG B1014	175.744	203.766	153.752	1.00	56.34	C
HETATM11034	C6	NAG B1014	177.216	203.581	153.475	1.00	56.34	C
HETATM11035	C7	NAG B1014	171.842	205.544	156.897	1.00	56.34	C
HETATM11036	C8	NAG B1014	170.365	205.562	157.147	1.00	56.34	C
HETATM11037	N2	NAG B1014	172.234	205.030	155.726	1.00	56.34	N
HETATM11038	O3	NAG B1014	173.394	206.707	153.713	1.00	56.34	O
HETATM11039	O4	NAG B1014	175.369	205.412	152.034	1.00	56.34	O
HETATM11040	O5	NAG B1014	175.543	203.459	155.142	1.00	56.34	O
HETATM11041	O6	NAG B1014	177.910	203.108	154.622	1.00	56.34	O
HETATM11042	O7	NAG B1014	172.651	205.978	157.716	1.00	56.34	O
HETATM11043	H1	NAG B1014	173.642	202.895	154.933	1.00	56.34	H
HETATM11044	H2	NAG B1014	174.168	205.528	155.855	1.00	56.34	H
HETATM11045	H3	NAG B1014	173.227	204.789	153.307	1.00	56.34	H
HETATM11046	H4	NAG B1014	175.800	205.826	153.913	1.00	56.34	H
HETATM11047	H5	NAG B1014	175.238	203.130	153.209	1.00	56.34	H
HETATM11048	H61	NAG B1014	177.594	204.439	153.199	1.00	56.34	H
HETATM11049	H62	NAG B1014	177.325	202.940	152.744	1.00	56.34	H
HETATM11050	H81	NAG B1014	170.009	204.663	157.026	1.00	56.34	H
HETATM11051	H82	NAG B1014	169.924	206.180	156.528	1.00	56.34	H
HETATM11052	H83	NAG B1014	170.196	205.843	158.066	1.00	56.34	H
HETATM11053	HN2	NAG B1014	171.595	204.712	155.159	1.00	56.34	H
HETATM11054	HO3	NAG B1014	172.575	206.823	154.035	1.00	56.34	H
HETATM11055	HO4	NAG B1014	175.499	206.279	151.890	1.00	56.34	H
HETATM11056	HO6	NAG B1014	178.764	202.992	154.407	1.00	56.34	H
HETATM11057	C1	NAG B1015	209.864	239.940	192.814	1.00	86.23	C
HETATM11058	C2	NAG B1015	209.620	241.412	193.235	1.00	86.23	C
HETATM11059	C3	NAG B1015	210.398	242.383	192.329	1.00	86.23	C
HETATM11060	C4	NAG B1015	211.855	241.970	192.181	1.00	86.23	C
HETATM11061	C5	NAG B1015	211.934	240.535	191.696	1.00	86.23	C
HETATM11062	C6	NAG B1015	213.351	240.022	191.573	1.00	86.23	C
HETATM11063	C7	NAG B1015	207.665	242.903	193.465	1.00	86.23	C
HETATM11064	C8	NAG B1015	206.177	243.007	193.332	1.00	86.23	C
HETATM11065	N2	NAG B1015	208.195	241.706	193.186	1.00	86.23	N

HETATM11066 O3 NAG B1015 210.351 243.699 192.868 1.00 86.23 O
HETATM11067 O4 NAG B1015 212.511 242.819 191.246 1.00 86.23 O
HETATM11068 O5 NAG B1015 211.273 239.701 192.653 1.00 86.23 O
HETATM11069 O6 NAG B1015 213.408 238.614 191.758 1.00 86.23 O
HETATM11070 O7 NAG B1015 208.353 243.860 193.805 1.00 86.23 O
HETATM11071 H1 NAG B1015 209.405 239.765 191.970 1.00 86.23 H
HETATM11072 H2 NAG B1015 209.938 241.528 194.149 1.00 86.23 H
HETATM11073 H3 NAG B1015 209.984 242.391 191.445 1.00 86.23 H
HETATM11074 H4 NAG B1015 212.298 242.049 193.048 1.00 86.23 H
HETATM11075 H5 NAG B1015 211.484 240.457 190.834 1.00 86.23 H
HETATM11076 H61 NAG B1015 213.910 240.447 192.249 1.00 86.23 H
HETATM11077 H62 NAG B1015 213.698 240.237 190.691 1.00 86.23 H
HETATM11078 H81 NAG B1015 205.888 242.494 192.554 1.00 86.23 H
HETATM11079 H82 NAG B1015 205.931 243.941 193.204 1.00 86.23 H
HETATM11080 H83 NAG B1015 205.747 242.657 194.134 1.00 86.23 H
HETATM11081 HN2 NAG B1015 207.632 241.037 192.928 1.00 86.23 H
HETATM11082 HO3 NAG B1015 209.782 244.193 192.398 1.00 86.23 H
HETATM11083 HO4 NAG B1015 212.692 242.367 190.503 1.00 86.23 H
HETATM11084 HO6 NAG B1015 213.997 238.414 192.391 1.00 86.23 H
HETATM11085 C1 PFE B1101 174.097 182.218 255.910 1.00 71.39 C
HETATM11086 C13 PFE B1101 178.894 181.473 257.567 1.00 71.39 C
HETATM11087 C18 PFE B1101 174.312 185.894 255.899 1.00 71.39 C
HETATM11088 C2 PFE B1101 174.401 183.509 256.662 1.00 71.39 C
HETATM11089 C21 PFE B1101 174.501 187.988 254.441 1.00 71.39 C
HETATM11090 C22 PFE B1101 175.157 188.410 253.292 1.00 71.39 C
HETATM11091 C23 PFE B1101 175.110 189.738 252.909 1.00 71.39 C
HETATM11092 C24 PFE B1101 174.409 190.664 253.670 1.00 71.39 C
HETATM11093 C25 PFE B1101 173.754 190.242 254.817 1.00 71.39 C
HETATM11094 C26 PFE B1101 173.798 188.915 255.198 1.00 71.39 C
HETATM11095 C28 PFE B1101 174.769 192.713 252.288 1.00 71.39 C
HETATM11096 C3 PFE B1101 175.628 183.379 257.544 1.00 71.39 C
HETATM11097 C30 PFE B1101 174.577 194.178 252.390 1.00 71.39 C
HETATM11098 C31 PFE B1101 175.021 195.065 251.463 1.00 71.39 C
HETATM11099 C33 PFE B1101 173.880 196.010 253.325 1.00 71.39 C

HETATM11100	C4	PFE B1101	176.648	182.501	257.201	1.00	71.39	C
HETATM11101	C5	PFE B1101	177.799	182.404	257.974	1.00	71.39	C
HETATM11102	C6	PFE B1101	177.943	183.190	259.111	1.00	71.39	C
HETATM11103	C7	PFE B1101	176.926	184.067	259.465	1.00	71.39	C
HETATM11104	C8	PFE B1101	175.777	184.152	258.688	1.00	71.39	C
HETATM11105	C9	PFE B1101	177.080	184.943	260.666	1.00	71.39	C
HETATM11106	F10	PFE B1101	178.084	184.566	261.449	1.00	71.39	F
HETATM11107	F11	PFE B1101	177.320	186.210	260.347	1.00	71.39	F
HETATM11108	F12	PFE B1101	175.996	184.954	261.435	1.00	71.39	F
HETATM11109	F14	PFE B1101	179.288	180.681	258.558	1.00	71.39	F
HETATM11110	F15	PFE B1101	178.539	180.671	256.570	1.00	71.39	F
HETATM11111	F16	PFE B1101	179.981	182.114	257.151	1.00	71.39	F
HETATM11112	N17	PFE B1101	174.559	184.594	255.689	1.00	71.39	N
HETATM11113	N20	PFE B1101	174.576	186.613	254.781	1.00	71.39	N
HETATM11114	N27	PFE B1101	174.321	192.044	253.372	1.00	71.39	N
HETATM11115	N34	PFE B1101	173.915	194.725	253.475	1.00	71.39	N
HETATM11116	O29	PFE B1101	175.294	192.200	251.304	1.00	71.39	O
HETATM11117	S19	PFE B1101	173.749	186.489	257.369	1.00	71.39	S
HETATM11118	S32	PFE B1101	174.615	196.650	251.922	1.00	71.39	S
HETATM11119	HC2	PFE B1101	173.534	183.699	257.292	1.00	71.39	H
HETATM11120	HC4	PFE B1101	176.549	181.877	256.314	1.00	71.39	H
HETATM11121	HC6	PFE B1101	178.846	183.129	259.715	1.00	71.39	H
HETATM11122	HC8	PFE B1101	174.977	184.833	258.975	1.00	71.39	H
HETATM11123	HC1A	PFE B1101	174.090	181.365	256.587	1.00	71.39	H
HETATM11124	HC1B	PFE B1101	173.109	182.262	255.454	1.00	71.39	H
HETATM11125	HC1C	PFE B1101	174.798	182.003	255.106	1.00	71.39	H
HETATM11126	HC22	PFE B1101	175.713	187.703	252.679	1.00	71.39	H
HETATM11127	HC23	PFE B1101	175.636	190.012	251.996	1.00	71.39	H
HETATM11128	HC25	PFE B1101	173.201	190.945	255.437	1.00	71.39	H
HETATM11129	HC26	PFE B1101	173.282	188.606	256.106	1.00	71.39	H
HETATM11130	HC31	PFE B1101	175.570	194.840	250.551	1.00	71.39	H
HETATM11131	HC33	PFE B1101	173.408	196.656	254.064	1.00	71.39	H
HETATM11132	HN17	PFE B1101	174.892	184.270	254.787	1.00	71.39	H
HETATM11133	HN20	PFE B1101	174.916	186.107	253.969	1.00	71.39	H

HETATM11134 HN27 PFE B1101 173.847 192.580 254.092 1.00 71.39 H
TER
ATOM 11135 N THR C 87 170.944 216.163 195.194 1.00 73.74 N
ATOM 11136 CA THR C 87 171.991 215.232 195.596 1.00 73.74 C
ATOM 11137 C THR C 87 171.473 213.799 195.604 1.00 73.74 C
ATOM 11138 O THR C 87 170.366 213.530 196.069 1.00 73.74 O
ATOM 11139 CB THR C 87 172.546 215.574 196.991 1.00 73.74 C
ATOM 11140 OG1 THR C 87 173.090 216.899 196.981 1.00 73.74 O
ATOM 11141 CG2 THR C 87 173.634 214.589 197.387 1.00 73.74 C
ATOM 11142 N LYS C 88 172.283 212.879 195.080 1.00 68.68 N
ATOM 11143 CA LYS C 88 171.950 211.462 195.056 1.00 68.68 C
ATOM 11144 C LYS C 88 172.646 210.686 196.167 1.00 68.68 C
ATOM 11145 O LYS C 88 172.788 209.463 196.066 1.00 68.68 O
ATOM 11146 CB LYS C 88 172.298 210.861 193.694 1.00 68.68 C
ATOM 11147 CG LYS C 88 173.785 210.849 193.383 1.00 68.68 C
ATOM 11148 CD LYS C 88 174.053 210.281 191.999 1.00 68.68 C
ATOM 11149 CE LYS C 88 175.539 210.248 191.690 1.00 68.68 C
ATOM 11150 NZ LYS C 88 175.808 209.698 190.334 1.00 68.68 N
ATOM 11151 N TYR C 89 173.083 211.370 197.222 1.00 57.94 N
ATOM 11152 CA TYR C 89 173.772 210.745 198.350 1.00 57.94 C
ATOM 11153 C TYR C 89 173.076 211.160 199.638 1.00 57.94 C
ATOM 11154 O TYR C 89 173.575 212.016 200.380 1.00 57.94 O
ATOM 11155 CB TYR C 89 175.250 211.128 198.376 1.00 57.94 C
ATOM 11156 CG TYR C 89 176.040 210.588 197.210 1.00 57.94 C
ATOM 11157 CD1 TYR C 89 176.471 209.269 197.192 1.00 57.94 C
ATOM 11158 CD2 TYR C 89 176.359 211.395 196.129 1.00 57.94 C
ATOM 11159 CE1 TYR C 89 177.194 208.770 196.130 1.00 57.94 C
ATOM 11160 CE2 TYR C 89 177.082 210.904 195.061 1.00 57.94 C
ATOM 11161 CZ TYR C 89 177.497 209.591 195.068 1.00 57.94 C
ATOM 11162 OH TYR C 89 178.218 209.095 194.007 1.00 57.94 O
ATOM 11163 N PRO C 90 171.918 210.580 199.932 1.00 48.05 N
ATOM 11164 CA PRO C 90 171.228 210.899 201.183 1.00 48.05 C
ATOM 11165 C PRO C 90 171.795 210.104 202.348 1.00 48.05 C
ATOM 11166 O PRO C 90 172.378 209.031 202.182 1.00 48.05 O

ATOM 11167 CB PRO C 90 169.781 210.490 200.897 1.00 48.05 C
ATOM 11168 CG PRO C 90 169.915 209.383 199.915 1.00 48.05 C
ATOM 11169 CD PRO C 90 171.105 209.720 199.057 1.00 48.05 C
ATOM 11170 N TYR C 91 171.618 210.663 203.542 1.00 41.42 N
ATOM 11171 CA TYR C 91 172.079 210.009 204.760 1.00 41.42 C
ATOM 11172 C TYR C 91 171.411 208.649 204.890 1.00 41.42 C
ATOM 11173 O TYR C 91 170.184 208.544 204.812 1.00 41.42 O
ATOM 11174 CB TYR C 91 171.759 210.871 205.981 1.00 41.42 C
ATOM 11175 CG TYR C 91 172.437 212.224 206.010 1.00 41.42 C
ATOM 11176 CD1 TYR C 91 173.498 212.515 205.169 1.00 41.42 C
ATOM 11177 CD2 TYR C 91 172.008 213.214 206.880 1.00 41.42 C
ATOM 11178 CE1 TYR C 91 174.105 213.750 205.189 1.00 41.42 C
ATOM 11179 CE2 TYR C 91 172.615 214.451 206.908 1.00 41.42 C
ATOM 11180 CZ TYR C 91 173.665 214.711 206.060 1.00 41.42 C
ATOM 11181 OH TYR C 91 174.283 215.937 206.074 1.00 41.42 O
ATOM 11182 N ARG C 92 172.207 207.603 205.087 1.00 37.69 N
ATOM 11183 CA ARG C 92 171.670 206.253 205.120 1.00 37.69 C
ATOM 11184 C ARG C 92 172.474 205.400 206.091 1.00 37.69 C
ATOM 11185 O ARG C 92 173.512 205.817 206.610 1.00 37.69 O
ATOM 11186 CB ARG C 92 171.643 205.650 203.717 1.00 37.69 C
ATOM 11187 CG ARG C 92 173.000 205.473 203.094 1.00 37.69 C
ATOM 11188 CD ARG C 92 172.847 205.113 201.636 1.00 37.69 C
ATOM 11189 NE ARG C 92 174.122 204.767 201.022 1.00 37.69 N
ATOM 11190 CZ ARG C 92 174.966 205.653 200.509 1.00 37.69 C
ATOM 11191 NH1 ARG C 92 174.675 206.945 200.544 1.00 37.69 N
ATOM 11192 NH2 ARG C 92 176.104 205.247 199.966 1.00 37.69 N
ATOM 11193 N VAL C 93 171.972 204.193 206.340 1.00 30.50 N
ATOM 11194 CA VAL C 93 172.429 203.358 207.446 1.00 30.50 C
ATOM 11195 C VAL C 93 172.925 202.014 206.920 1.00 30.50 C
ATOM 11196 O VAL C 93 172.613 200.960 207.483 1.00 30.50 O
ATOM 11197 CB VAL C 93 171.322 203.184 208.503 1.00 30.50 C
ATOM 11198 CG1 VAL C 93 171.872 202.526 209.763 1.00 30.50 C
ATOM 11199 CG2 VAL C 93 170.705 204.520 208.833 1.00 30.50 C
ATOM 11200 N CYS C 94 173.675 202.028 205.817 1.00 40.64 N

ATOM 11201 CA CYS C 94 174.021 200.791 205.122 1.00 40.64 C
ATOM 11202 C CYS C 94 174.938 199.921 205.972 1.00 40.64 C
ATOM 11203 O CYS C 94 176.135 199.809 205.692 1.00 40.64 O
ATOM 11204 CB CYS C 94 174.734 201.097 203.803 1.00 40.64 C
ATOM 11205 SG CYS C 94 173.811 202.059 202.601 1.00 40.64 S
ATOM 11206 N SER C 95 174.388 199.308 207.008 1.00 41.40 N
ATOM 11207 CA SER C 95 175.159 198.470 207.918 1.00 41.40 C
ATOM 11208 C SER C 95 174.535 197.105 208.162 1.00 41.40 C
ATOM 11209 O SER C 95 175.265 196.127 208.331 1.00 41.40 O
ATOM 11210 CB SER C 95 175.345 199.191 209.260 1.00 41.40 C
ATOM 11211 OG SER C 95 176.039 198.373 210.184 1.00 41.40 O
ATOM 11212 N MET C 96 173.211 197.015 208.195 1.00 43.19 N
ATOM 11213 CA MET C 96 172.521 195.816 208.644 1.00 43.19 C
ATOM 11214 C MET C 96 171.902 195.080 207.465 1.00 43.19 C
ATOM 11215 O MET C 96 171.398 195.700 206.525 1.00 43.19 O
ATOM 11216 CB MET C 96 171.443 196.178 209.665 1.00 43.19 C
ATOM 11217 CG MET C 96 170.329 197.034 209.098 1.00 43.19 C
ATOM 11218 SD MET C 96 169.205 197.651 210.365 1.00 43.19 S
ATOM 11219 CE MET C 96 170.192 198.948 211.106 1.00 43.19 C
ATOM 11220 N ALA C 97 171.939 193.752 207.525 1.00 41.46 N
ATOM 11221 CA ALA C 97 171.385 192.924 206.465 1.00 41.46 C
ATOM 11222 C ALA C 97 171.080 191.545 207.024 1.00 41.46 C
ATOM 11223 O ALA C 97 171.581 191.154 208.080 1.00 41.46 O
ATOM 11224 CB ALA C 97 172.337 192.822 205.271 1.00 41.46 C
ATOM 11225 N GLN C 98 170.261 190.811 206.282 1.00 44.10 N
ATOM 11226 CA GLN C 98 169.706 189.525 206.688 1.00 44.10 C
ATOM 11227 C GLN C 98 169.328 188.780 205.412 1.00 44.10 C
ATOM 11228 O GLN C 98 169.848 189.083 204.333 1.00 44.10 O
ATOM 11229 CB GLN C 98 168.527 189.714 207.659 1.00 44.10 C
ATOM 11230 CG GLN C 98 168.933 190.179 209.043 1.00 44.10 C
ATOM 11231 CD GLN C 98 167.750 190.414 209.950 1.00 44.10 C
ATOM 11232 OE1 GLN C 98 166.602 190.359 209.514 1.00 44.10 O
ATOM 11233 NE2 GLN C 98 168.022 190.663 211.225 1.00 44.10 N
ATOM 11234 N GLY C 99 168.444 187.798 205.530 1.00 45.40 N

ATOM 11235 CA GLY C 99 168.064 187.028 204.365 1.00 45.40 C
ATOM 11236 C GLY C 99 167.172 187.814 203.425 1.00 45.40 C
ATOM 11237 O GLY C 99 167.418 188.997 203.176 1.00 45.40 O
ATOM 11238 N THR C 100 166.142 187.164 202.891 1.00 42.61 N
ATOM 11239 CA THR C 100 165.263 187.602 201.813 1.00 42.61 C
ATOM 11240 C THR C 100 165.927 187.435 200.449 1.00 42.61 C
ATOM 11241 O THR C 100 165.247 187.577 199.433 1.00 42.61 O
ATOM 11242 CB THR C 100 164.801 189.068 201.943 1.00 42.61 C
ATOM 11243 OG1 THR C 100 165.917 189.937 201.720 1.00 42.61 O
ATOM 11244 CG2 THR C 100 164.253 189.342 203.327 1.00 42.61 C
ATOM 11245 N ASP C 101 167.224 187.129 200.387 1.00 42.64 N
ATOM 11246 CA ASP C 101 167.917 186.822 199.141 1.00 42.64 C
ATOM 11247 C ASP C 101 169.368 186.447 199.420 1.00 42.64 C
ATOM 11248 O ASP C 101 169.954 186.914 200.400 1.00 42.64 O
ATOM 11249 CB ASP C 101 167.832 188.001 198.173 1.00 42.64 C
ATOM 11250 CG ASP C 101 168.301 189.292 198.794 1.00 42.64 C
ATOM 11251 OD1 ASP C 101 168.647 189.281 199.993 1.00 42.64 O
ATOM 11252 OD2 ASP C 101 168.307 190.320 198.089 1.00 42.64 O
ATOM 11253 N LEU C 102 169.959 185.619 198.564 1.00 41.07 N
ATOM 11254 CA LEU C 102 171.299 185.108 198.808 1.00 41.07 C
ATOM 11255 C LEU C 102 172.057 185.045 197.491 1.00 41.07 C
ATOM 11256 O LEU C 102 171.460 184.854 196.429 1.00 41.07 O
ATOM 11257 CB LEU C 102 171.262 183.716 199.451 1.00 41.07 C
ATOM 11258 CG LEU C 102 170.915 183.549 200.932 1.00 41.07 C
ATOM 11259 CD1 LEU C 102 169.435 183.744 201.172 1.00 41.07 C
ATOM 11260 CD2 LEU C 102 171.343 182.176 201.412 1.00 41.07 C
ATOM 11261 N ILE C 103 173.379 185.204 197.566 1.00 42.84 N
ATOM 11262 CA ILE C 103 174.232 185.078 196.387 1.00 42.84 C
ATOM 11263 C ILE C 103 175.588 184.493 196.765 1.00 42.84 C
ATOM 11264 O ILE C 103 176.298 185.032 197.620 1.00 42.84 O
ATOM 11265 CB ILE C 103 174.409 186.427 195.662 1.00 42.84 C
ATOM 11266 CG1 ILE C 103 175.024 187.473 196.587 1.00 42.84 C
ATOM 11267 CG2 ILE C 103 173.094 186.923 195.083 1.00 42.84 C
ATOM 11268 CD1 ILE C 103 175.462 188.725 195.863 1.00 42.84 C

ATOM 11269 N ARG C 104 175.949 183.384 196.129 1.00 56.46 N
ATOM 11270 CA ARG C 104 177.266 182.779 196.260 1.00 56.46 C
ATOM 11271 C ARG C 104 178.181 183.319 195.162 1.00 56.46 C
ATOM 11272 O ARG C 104 177.879 184.323 194.513 1.00 56.46 O
ATOM 11273 CB ARG C 104 177.159 181.261 196.208 1.00 56.46 C
ATOM 11274 CG ARG C 104 176.630 180.762 194.888 1.00 56.46 C
ATOM 11275 CD ARG C 104 176.563 179.256 194.839 1.00 56.46 C
ATOM 11276 NE ARG C 104 176.019 178.804 193.566 1.00 56.46 N
ATOM 11277 CZ ARG C 104 175.921 177.531 193.207 1.00 56.46 C
ATOM 11278 NH1 ARG C 104 176.349 176.580 194.022 1.00 56.46 N
ATOM 11279 NH2 ARG C 104 175.409 177.211 192.029 1.00 56.46 N
ATOM 11280 N PHE C 105 179.325 182.661 194.944 1.00 63.44 N
ATOM 11281 CA PHE C 105 180.284 183.105 193.941 1.00 63.44 C
ATOM 11282 C PHE C 105 180.658 182.060 192.895 1.00 63.44 C
ATOM 11283 O PHE C 105 181.171 182.445 191.839 1.00 63.44 O
ATOM 11284 CB PHE C 105 181.567 183.613 194.613 1.00 63.44 C
ATOM 11285 CG PHE C 105 181.396 184.924 195.324 1.00 63.44 C
ATOM 11286 CD1 PHE C 105 181.449 186.117 194.624 1.00 63.44 C
ATOM 11287 CD2 PHE C 105 181.175 184.964 196.689 1.00 63.44 C
ATOM 11288 CE1 PHE C 105 181.294 187.324 195.273 1.00 63.44 C
ATOM 11289 CE2 PHE C 105 181.018 186.169 197.344 1.00 63.44 C
ATOM 11290 CZ PHE C 105 181.078 187.351 196.634 1.00 63.44 C
ATOM 11291 N GLU C 106 180.421 180.768 193.144 1.00 76.78 N
ATOM 11292 CA GLU C 106 180.522 179.731 192.111 1.00 76.78 C
ATOM 11293 C GLU C 106 181.933 179.666 191.514 1.00 76.78 C
ATOM 11294 O GLU C 106 182.174 180.071 190.375 1.00 76.78 O
ATOM 11295 CB GLU C 106 179.473 179.956 191.017 1.00 76.78 C
ATOM 11296 CG GLU C 106 179.473 178.896 189.933 1.00 76.78 C
ATOM 11297 CD GLU C 106 179.119 177.526 190.469 1.00 76.78 C
ATOM 11298 OE1 GLU C 106 178.439 177.455 191.513 1.00 76.78 O
ATOM 11299 OE2 GLU C 106 179.521 176.521 189.847 1.00 76.78 O
ATOM 11300 N ARG C 107 182.860 179.174 192.347 1.00 83.94 N
ATOM 11301 CA ARG C 107 184.295 179.160 192.063 1.00 83.94 C
ATOM 11302 C ARG C 107 184.658 178.770 190.629 1.00 83.94 C

ATOM 11303 O ARG C 107 185.256 179.562 189.893 1.00 83.94 O
ATOM 11304 CB ARG C 107 185.003 178.202 193.030 1.00 83.94 C
ATOM 11305 CG ARG C 107 185.176 178.697 194.458 1.00 83.94 C
ATOM 11306 CD ARG C 107 184.046 178.231 195.358 1.00 83.94 C
ATOM 11307 NE ARG C 107 184.349 178.459 196.769 1.00 83.94 N
ATOM 11308 CZ ARG C 107 183.919 179.502 197.473 1.00 83.94 C
ATOM 11309 NH1 ARG C 107 184.253 179.629 198.749 1.00 83.94 N
ATOM 11310 NH2 ARG C 107 183.151 180.419 196.898 1.00 83.94 N
ATOM 11311 N ASN C 108 184.298 177.558 190.209 1.00100.64 N
ATOM 11312 CA ASN C 108 184.801 177.020 188.948 1.00100.64 C
ATOM 11313 C ASN C 108 184.014 177.566 187.757 1.00100.64 C
ATOM 11314 O ASN C 108 182.811 177.322 187.622 1.00100.64 O
ATOM 11315 CB ASN C 108 184.781 175.492 188.967 1.00100.64 C
ATOM 11316 CG ASN C 108 183.423 174.920 189.322 1.00100.64 C
ATOM 11317 OD1 ASN C 108 182.473 175.653 189.593 1.00100.64 O
ATOM 11318 ND2 ASN C 108 183.321 173.596 189.299 1.00100.64 N
ATOM 11319 N ILE C 109 184.707 178.306 186.893 1.00106.95 N
ATOM 11320 CA ILE C 109 184.141 178.891 185.682 1.00106.95 C
ATOM 11321 C ILE C 109 184.953 178.384 184.495 1.00106.95 C
ATOM 11322 O ILE C 109 185.263 179.147 183.573 1.00106.95 O
ATOM 11323 CB ILE C 109 184.130 180.430 185.747 1.00106.95 C
ATOM 11324 CG1 ILE C 109 183.482 180.895 187.047 1.00106.95 C
ATOM 11325 CG2 ILE C 109 183.327 181.023 184.593 1.00106.95 C
ATOM 11326 CD1 ILE C 109 182.047 180.450 187.200 1.00106.95 C
ATOM 11327 N VAL C 110 185.354 177.109 184.552 1.00122.51 N
ATOM 11328 CA VAL C 110 186.285 176.480 183.613 1.00122.51 C
ATOM 11329 C VAL C 110 185.947 176.794 182.160 1.00122.51 C
ATOM 11330 O VAL C 110 184.818 176.580 181.704 1.00122.51 O
ATOM 11331 CB VAL C 110 186.331 174.956 183.832 1.00122.51 C
ATOM 11332 CG1 VAL C 110 186.852 174.637 185.223 1.00122.51 C
ATOM 11333 CG2 VAL C 110 184.953 174.340 183.622 1.00122.51 C
ATOM 11334 N CYS C 111 186.933 177.310 181.431 1.00130.53 N
ATOM 11335 CA CYS C 111 186.751 177.784 180.070 1.00130.53 C
ATOM 11336 C CYS C 111 187.081 176.677 179.073 1.00130.53 C

ATOM 11337 O CYS C 111 187.626 175.627 179.422 1.00130.53 O
ATOM 11338 CB CYS C 111 187.627 179.011 179.819 1.00130.53 C
ATOM 11339 SG CYS C 111 187.283 180.400 180.924 1.00130.53 S
ATOM 11340 N THR C 112 186.747 176.925 177.810 1.00138.64 N
ATOM 11341 CA THR C 112 186.973 175.962 176.742 1.00138.64 C
ATOM 11342 C THR C 112 187.673 176.646 175.579 1.00138.64 C
ATOM 11343 O THR C 112 187.269 177.734 175.156 1.00138.64 O
ATOM 11344 CB THR C 112 185.656 175.326 176.274 1.00138.64 C
ATOM 11345 OG1 THR C 112 185.930 174.319 175.291 1.00138.64 O
ATOM 11346 CG2 THR C 112 184.721 176.375 175.685 1.00138.64 C
ATOM 11347 N SER C 113 188.729 176.015 175.079 1.00136.38 N
ATOM 11348 CA SER C 113 189.416 176.489 173.890 1.00136.38 C
ATOM 11349 C SER C 113 188.751 175.875 172.660 1.00136.38 C
ATOM 11350 O SER C 113 187.677 175.273 172.743 1.00136.38 O
ATOM 11351 CB SER C 113 190.905 176.164 173.974 1.00136.38 C
ATOM 11352 OG SER C 113 191.517 176.861 175.045 1.00136.38 O
ATOM 11353 N MET C 114 189.382 176.017 171.502 1.00130.21 N
ATOM 11354 CA MET C 114 188.824 175.551 170.242 1.00130.21 C
ATOM 11355 C MET C 114 189.895 174.781 169.470 1.00130.21 C
ATOM 11356 O MET C 114 191.076 174.790 169.824 1.00130.21 O
ATOM 11357 CB MET C 114 188.287 176.737 169.433 1.00130.21 C
ATOM 11358 CG MET C 114 187.474 176.376 168.200 1.00130.21 C
ATOM 11359 SD MET C 114 186.969 177.826 167.262 1.00130.21 S
ATOM 11360 CE MET C 114 188.534 178.294 166.527 1.00130.21 C
ATOM 11361 N LYS C 115 189.471 174.110 168.403 1.00132.01 N
ATOM 11362 CA LYS C 115 190.386 173.403 167.520 1.00132.01 C
ATOM 11363 C LYS C 115 190.493 174.167 166.202 1.00132.01 C
ATOM 11364 O LYS C 115 189.780 173.866 165.240 1.00132.01 O
ATOM 11365 CB LYS C 115 189.927 171.945 167.342 1.00132.01 C
ATOM 11366 CG LYS C 115 188.517 171.712 166.771 1.00132.01 C
ATOM 11367 CD LYS C 115 188.535 171.307 165.296 1.00132.01 C
ATOM 11368 CE LYS C 115 187.148 170.994 164.759 1.00132.01 C
ATOM 11369 NZ LYS C 115 187.188 170.648 163.308 1.00132.01 N
ATOM 11370 N PRO C 116 191.342 175.196 166.123 1.00132.12 N

ATOM 11371 CA PRO C 116 191.480 175.899 164.844 1.00132.12 C
ATOM 11372 C PRO C 116 192.241 175.030 163.864 1.00132.12 C
ATOM 11373 O PRO C 116 193.476 174.980 163.881 1.00132.12 O
ATOM 11374 CB PRO C 116 192.265 177.161 165.219 1.00132.12 C
ATOM 11375 CG PRO C 116 193.055 176.752 166.416 1.00132.12 C
ATOM 11376 CD PRO C 116 192.194 175.778 167.174 1.00132.12 C
ATOM 11377 N ILE C 117 191.499 174.340 163.003 1.00137.27 N
ATOM 11378 CA ILE C 117 192.094 173.406 162.059 1.00137.27 C
ATOM 11379 C ILE C 117 191.164 173.210 160.863 1.00137.27 C
ATOM 11380 O ILE C 117 190.028 172.746 161.024 1.00137.27 O
ATOM 11381 CB ILE C 117 192.411 172.079 162.780 1.00137.27 C
ATOM 11382 CG1 ILE C 117 193.199 171.123 161.887 1.00137.27 C
ATOM 11383 CG2 ILE C 117 191.152 171.426 163.340 1.00137.27 C
ATOM 11384 CD1 ILE C 117 193.759 169.932 162.631 1.00137.27 C
ATOM 11385 N ASN C 118 191.636 173.562 159.659 1.00144.52 N
ATOM 11386 CA ASN C 118 190.996 173.163 158.398 1.00144.52 C
ATOM 11387 C ASN C 118 189.514 173.552 158.348 1.00144.52 C
ATOM 11388 O ASN C 118 188.684 172.847 157.773 1.00144.52 O
ATOM 11389 CB ASN C 118 191.180 171.658 158.192 1.00144.52 C
ATOM 11390 CG ASN C 118 192.639 171.276 157.999 1.00144.52 C
ATOM 11391 OD1 ASN C 118 193.360 171.105 158.979 1.00144.52 O
ATOM 11392 ND2 ASN C 118 193.076 171.079 156.755 1.00144.52 N
ATOM 11393 N GLU C 119 189.181 174.685 158.969 1.00126.95 N
ATOM 11394 CA GLU C 119 187.787 175.055 159.184 1.00126.95 C
ATOM 11395 C GLU C 119 187.550 176.502 158.777 1.00126.95 C
ATOM 11396 O GLU C 119 188.471 177.321 158.733 1.00126.95 O
ATOM 11397 CB GLU C 119 187.369 174.867 160.650 1.00126.95 C
ATOM 11398 CG GLU C 119 188.020 175.857 161.612 1.00126.95 C
ATOM 11399 CD GLU C 119 187.633 175.618 163.062 1.00126.95 C
ATOM 11400 OE1 GLU C 119 186.883 174.657 163.332 1.00126.95 O
ATOM 11401 OE2 GLU C 119 188.079 176.395 163.933 1.00126.95 O
ATOM 11402 N ASP C 120 186.284 176.803 158.491 1.00111.95 N
ATOM 11403 CA ASP C 120 185.800 178.151 158.218 1.00111.95 C
ATOM 11404 C ASP C 120 184.715 178.498 159.234 1.00111.95 C

ATOM 11405 O ASP C 120 184.483 177.764 160.199 1.00111.95 O
ATOM 11406 CB ASP C 120 185.294 178.281 156.774 1.00111.95 C
ATOM 11407 CG ASP C 120 184.188 177.296 156.446 1.00111.95 C
ATOM 11408 OD1 ASP C 120 183.857 176.447 157.301 1.00111.95 O
ATOM 11409 OD2 ASP C 120 183.646 177.372 155.324 1.00111.95 O
ATOM 11410 N LEU C 121 184.041 179.627 159.020 1.00 98.95 N
ATOM 11411 CA LEU C 121 183.147 180.157 160.042 1.00 98.95 C
ATOM 11412 C LEU C 121 182.187 181.164 159.421 1.00 98.95 C
ATOM 11413 O LEU C 121 182.458 181.742 158.365 1.00 98.95 O
ATOM 11414 CB LEU C 121 183.947 180.786 161.189 1.00 98.95 C
ATOM 11415 CG LEU C 121 184.712 182.087 160.928 1.00 98.95 C
ATOM 11416 CD1 LEU C 121 185.173 182.697 162.237 1.00 98.95 C
ATOM 11417 CD2 LEU C 121 185.902 181.861 160.009 1.00 98.95 C
ATOM 11418 N ASP C 122 181.056 181.362 160.099 1.00 99.78 N
ATOM 11419 CA ASP C 122 179.965 182.221 159.660 1.00 99.78 C
ATOM 11420 C ASP C 122 179.854 183.445 160.570 1.00 99.78 C
ATOM 11421 O ASP C 122 180.702 183.683 161.437 1.00 99.78 O
ATOM 11422 CB ASP C 122 178.653 181.433 159.625 1.00 99.78 C
ATOM 11423 CG ASP C 122 178.627 180.390 158.528 1.00 99.78 C
ATOM 11424 OD1 ASP C 122 179.305 180.590 157.499 1.00 99.78 O
ATOM 11425 OD2 ASP C 122 177.924 179.371 158.692 1.00 99.78 O
ATOM 11426 N GLU C 123 178.798 184.231 160.366 1.00105.04 N
ATOM 11427 CA GLU C 123 178.554 185.414 161.182 1.00105.04 C
ATOM 11428 C GLU C 123 177.087 185.800 161.073 1.00105.04 C
ATOM 11429 O GLU C 123 176.538 185.842 159.968 1.00105.04 O
ATOM 11430 CB GLU C 123 179.451 186.577 160.745 1.00105.04 C
ATOM 11431 CG GLU C 123 179.183 187.076 159.339 1.00105.04 C
ATOM 11432 CD GLU C 123 180.131 188.184 158.930 1.00105.04 C
ATOM 11433 OE1 GLU C 123 181.002 188.551 159.747 1.00105.04 O
ATOM 11434 OE2 GLU C 123 180.010 188.686 157.793 1.00105.04 O
ATOM 11435 N GLY C 124 176.461 186.072 162.211 1.00107.26 N
ATOM 11436 CA GLY C 124 175.057 186.445 162.235 1.00107.26 C
ATOM 11437 C GLY C 124 174.729 187.247 163.473 1.00107.26 C
ATOM 11438 O GLY C 124 175.316 187.041 164.540 1.00107.26 O

ATOM 11439 N ILE C 125 173.776 188.166 163.330 1.00114.76 N
ATOM 11440 CA ILE C 125 173.382 189.052 164.421 1.00114.76 C
ATOM 11441 C ILE C 125 172.380 188.339 165.319 1.00114.76 C
ATOM 11442 O ILE C 125 171.446 187.687 164.837 1.00114.76 O
ATOM 11443 CB ILE C 125 172.811 190.368 163.859 1.00114.76 C
ATOM 11444 CG1 ILE C 125 171.615 190.107 162.940 1.00114.76 C
ATOM 11445 CG2 ILE C 125 173.879 191.127 163.093 1.00114.76 C
ATOM 11446 CD1 ILE C 125 170.274 190.125 163.636 1.00114.76 C
ATOM 11447 N MET C 126 172.561 188.470 166.634 1.00117.37 N
ATOM 11448 CA MET C 126 171.745 187.734 167.591 1.00117.37 C
ATOM 11449 C MET C 126 171.567 188.545 168.865 1.00117.37 C
ATOM 11450 O MET C 126 172.482 189.251 169.296 1.00117.37 O
ATOM 11451 CB MET C 126 172.367 186.369 167.915 1.00117.37 C
ATOM 11452 CG MET C 126 173.747 186.415 168.567 1.00117.37 C
ATOM 11453 SD MET C 126 173.747 186.539 170.366 1.00117.37 S
ATOM 11454 CE MET C 126 175.334 187.321 170.645 1.00117.37 C
ATOM 11455 N VAL C 127 170.382 188.428 169.464 1.00114.58 N
ATOM 11456 CA VAL C 127 170.066 189.033 170.751 1.00114.58 C
ATOM 11457 C VAL C 127 169.769 187.917 171.741 1.00114.58 C
ATOM 11458 O VAL C 127 169.165 186.900 171.380 1.00114.58 O
ATOM 11459 CB VAL C 127 168.875 190.005 170.649 1.00114.58 C
ATOM 11460 CG1 VAL C 127 169.211 191.153 169.717 1.00114.58 C
ATOM 11461 CG2 VAL C 127 167.635 189.271 170.169 1.00114.58 C
ATOM 11462 N VAL C 128 170.190 188.108 172.991 1.00114.55 N
ATOM 11463 CA VAL C 128 170.065 187.072 174.010 1.00114.55 C
ATOM 11464 C VAL C 128 169.106 187.527 175.100 1.00114.55 C
ATOM 11465 O VAL C 128 168.632 188.669 175.090 1.00114.55 O
ATOM 11466 CB VAL C 128 171.438 186.721 174.608 1.00114.55 C
ATOM 11467 CG1 VAL C 128 172.373 186.223 173.522 1.00114.55 C
ATOM 11468 CG2 VAL C 128 172.028 187.927 175.316 1.00114.55 C
ATOM 11469 N TYR C 129 168.819 186.641 176.049 1.00113.12 N
ATOM 11470 CA TYR C 129 167.963 186.970 177.182 1.00113.12 C
ATOM 11471 C TYR C 129 168.017 185.813 178.172 1.00113.12 C
ATOM 11472 O TYR C 129 168.581 184.753 177.887 1.00113.12 O

```
ATOM  11473  CB  TYR C 129     166.533 187.277 176.732  1.00113.12           C
ATOM  11474  CG  TYR C 129     165.813 186.140 176.056  1.00113.12           C
ATOM  11475  CD1 TYR C 129     165.944 185.924 174.693  1.00113.12           C
ATOM  11476  CD2 TYR C 129     164.971 185.305 176.773  1.00113.12           C
ATOM  11477  CE1 TYR C 129     165.276 184.892 174.068  1.00113.12           C
ATOM  11478  CE2 TYR C 129     164.297 184.272 176.160  1.00113.12           C
ATOM  11479  CZ  TYR C 129     164.453 184.069 174.806  1.00113.12           C
ATOM  11480  OH  TYR C 129     163.782 183.039 174.188  1.00113.12           O
ATOM  11481  N   LYS C 130     167.426 186.033 179.346  1.00111.48           N
ATOM  11482  CA  LYS C 130     167.640 185.171 180.499  1.00111.48           C
ATOM  11483  C   LYS C 130     166.311 184.828 181.166  1.00111.48           C
ATOM  11484  O   LYS C 130     165.312 185.534 181.013  1.00111.48           O
ATOM  11485  CB  LYS C 130     168.598 185.849 181.493  1.00111.48           C
ATOM  11486  CG  LYS C 130     169.009 185.019 182.693  1.00111.48           C
ATOM  11487  CD  LYS C 130     170.084 185.739 183.496  1.00111.48           C
ATOM  11488  CE  LYS C 130     169.481 186.724 184.485  1.00111.48           C
ATOM  11489  NZ  LYS C 130     169.200 188.046 183.856  1.00111.48           N
ATOM  11490  N   ARG C 131     166.318 183.722 181.911  1.00112.31           N
ATOM  11491  CA  ARG C 131     165.144 183.224 182.618  1.00112.31           C
ATOM  11492  C   ARG C 131     164.912 184.003 183.911  1.00112.31           C
ATOM  11493  O   ARG C 131     165.846 184.547 184.507  1.00112.31           O
ATOM  11494  CB  ARG C 131     165.323 181.734 182.926  1.00112.31           C
ATOM  11495  CG  ARG C 131     164.199 181.074 183.717  1.00112.31           C
ATOM  11496  CD  ARG C 131     162.923 180.935 182.910  1.00112.31           C
ATOM  11497  NE  ARG C 131     161.872 180.248 183.657  1.00112.31           N
ATOM  11498  CZ  ARG C 131     160.618 180.115 183.237  1.00112.31           C
ATOM  11499  NH1 ARG C 131     159.732 179.473 183.988  1.00112.31           N
ATOM  11500  NH2 ARG C 131     160.248 180.617 182.069  1.00112.31           N
ATOM  11501  N   ASN C 132     163.649 184.053 184.346  1.00105.23           N
ATOM  11502  CA  ASN C 132     163.267 184.754 185.566  1.00105.23           C
ATOM  11503  C   ASN C 132     162.393 183.869 186.446  1.00105.23           C
ATOM  11504  O   ASN C 132     161.593 183.067 185.957  1.00105.23           O
ATOM  11505  CB  ASN C 132     162.534 186.064 185.256  1.00105.23           C
ATOM  11506  CG  ASN C 132     163.458 187.130 184.710  1.00105.23           C
```

ATOM 11507 OD1 ASN C 132 164.578 187.302 185.192 1.00105.23 O
ATOM 11508 ND2 ASN C 132 162.995 187.854 183.698 1.00105.23 N
ATOM 11509 N ILE C 133 162.561 184.034 187.759 1.00 90.67 N
ATOM 11510 CA ILE C 133 161.934 183.198 188.779 1.00 90.67 C
ATOM 11511 C ILE C 133 161.143 184.081 189.742 1.00 90.67 C
ATOM 11512 O ILE C 133 161.196 183.882 190.961 1.00 90.67 O
ATOM 11513 CB ILE C 133 162.981 182.342 189.516 1.00 90.67 C
ATOM 11514 CG1 ILE C 133 163.867 181.619 188.503 1.00 90.67 C
ATOM 11515 CG2 ILE C 133 162.307 181.279 190.371 1.00 90.67 C
ATOM 11516 CD1 ILE C 133 163.109 180.675 187.593 1.00 90.67 C
ATOM 11517 N VAL C 134 160.446 185.084 189.196 1.00 80.14 N
ATOM 11518 CA VAL C 134 159.869 186.236 189.897 1.00 80.14 C
ATOM 11519 C VAL C 134 159.250 185.899 191.252 1.00 80.14 C
ATOM 11520 O VAL C 134 158.539 184.899 191.398 1.00 80.14 O
ATOM 11521 CB VAL C 134 158.822 186.915 188.994 1.00 80.14 C
ATOM 11522 CG1 VAL C 134 158.138 188.055 189.726 1.00 80.14 C
ATOM 11523 CG2 VAL C 134 159.469 187.406 187.709 1.00 80.14 C
ATOM 11524 N ALA C 135 159.530 186.741 192.250 1.00 62.54 N
ATOM 11525 CA ALA C 135 159.274 186.464 193.657 1.00 62.54 C
ATOM 11526 C ALA C 135 157.909 187.000 194.096 1.00 62.54 C
ATOM 11527 O ALA C 135 157.056 187.348 193.277 1.00 62.54 O
ATOM 11528 CB ALA C 135 160.401 187.044 194.507 1.00 62.54 C
ATOM 11529 N HIS C 136 157.693 187.063 195.412 1.00 51.22 N
ATOM 11530 CA HIS C 136 156.397 187.394 195.988 1.00 51.22 C
ATOM 11531 C HIS C 136 156.613 188.109 197.319 1.00 51.22 C
ATOM 11532 O HIS C 136 157.544 187.776 198.056 1.00 51.22 O
ATOM 11533 CB HIS C 136 155.572 186.114 196.177 1.00 51.22 C
ATOM 11534 CG HIS C 136 154.113 186.349 196.400 1.00 51.22 C
ATOM 11535 ND1 HIS C 136 153.263 185.357 196.836 1.00 51.22 N
ATOM 11536 CD2 HIS C 136 153.347 187.451 196.224 1.00 51.22 C
ATOM 11537 CE1 HIS C 136 152.038 185.840 196.930 1.00 51.22 C
ATOM 11538 NE2 HIS C 136 152.062 187.110 196.566 1.00 51.22 N
ATOM 11539 N THR C 137 155.761 189.093 197.624 1.00 43.03 N
ATOM 11540 CA THR C 137 155.882 189.888 198.849 1.00 43.03 C

ATOM 11541 C THR C 137 154.493 190.192 199.395 1.00 43.03 C
ATOM 11542 O THR C 137 153.652 190.726 198.667 1.00 43.03 O
ATOM 11543 CB THR C 137 156.638 191.195 198.590 1.00 43.03 C
ATOM 11544 OG1 THR C 137 155.926 191.976 197.623 1.00 43.03 O
ATOM 11545 CG2 THR C 137 158.041 190.921 198.078 1.00 43.03 C
ATOM 11546 N PHE C 138 154.247 189.867 200.679 1.00 38.86 N
ATOM 11547 CA PHE C 138 152.876 189.905 201.181 1.00 38.86 C
ATOM 11548 C PHE C 138 152.667 190.378 202.623 1.00 38.86 C
ATOM 11549 O PHE C 138 151.543 190.258 203.125 1.00 38.86 O
ATOM 11550 CB PHE C 138 152.237 188.523 200.994 1.00 38.86 C
ATOM 11551 CG PHE C 138 153.005 187.403 201.629 1.00 38.86 C
ATOM 11552 CD1 PHE C 138 154.023 186.770 200.939 1.00 38.86 C
ATOM 11553 CD2 PHE C 138 152.691 186.957 202.894 1.00 38.86 C
ATOM 11554 CE1 PHE C 138 154.726 185.741 201.507 1.00 38.86 C
ATOM 11555 CE2 PHE C 138 153.391 185.920 203.462 1.00 38.86 C
ATOM 11556 CZ PHE C 138 154.410 185.316 202.766 1.00 38.86 C
ATOM 11557 N LYS C 139 153.671 190.936 203.303 1.00 36.20 N
ATOM 11558 CA LYS C 139 153.455 191.670 204.559 1.00 36.20 C
ATOM 11559 C LYS C 139 152.867 190.791 205.673 1.00 36.20 C
ATOM 11560 O LYS C 139 151.697 190.903 206.041 1.00 36.20 O
ATOM 11561 CB LYS C 139 152.554 192.888 204.324 1.00 36.20 C
ATOM 11562 CG LYS C 139 153.182 193.989 203.496 1.00 36.20 C
ATOM 11563 CD LYS C 139 152.247 195.180 203.362 1.00 36.20 C
ATOM 11564 CE LYS C 139 152.915 196.321 202.615 1.00 36.20 C
ATOM 11565 NZ LYS C 139 153.184 195.961 201.197 1.00 36.20 N
ATOM 11566 N VAL C 140 153.707 189.895 206.194 1.00 33.41 N
ATOM 11567 CA VAL C 140 153.356 189.090 207.366 1.00 33.41 C
ATOM 11568 C VAL C 140 153.259 189.966 208.611 1.00 33.41 C
ATOM 11569 O VAL C 140 153.659 191.134 208.593 1.00 33.41 O
ATOM 11570 CB VAL C 140 154.374 187.962 207.599 1.00 33.41 C
ATOM 11571 CG1 VAL C 140 154.444 187.056 206.396 1.00 33.41 C
ATOM 11572 CG2 VAL C 140 155.732 188.541 207.923 1.00 33.41 C
ATOM 11573 N ARG C 141 152.727 189.405 209.699 1.00 36.33 N
ATOM 11574 CA ARG C 141 152.548 190.121 210.963 1.00 36.33 C

ATOM 11575 C ARG C 141 153.000 189.221 212.104 1.00 36.33 C
ATOM 11576 O ARG C 141 152.405 188.164 212.328 1.00 36.33 O
ATOM 11577 CB ARG C 141 151.092 190.532 211.166 1.00 36.33 C
ATOM 11578 CG ARG C 141 150.588 191.562 210.191 1.00 36.33 C
ATOM 11579 CD ARG C 141 149.214 192.048 210.605 1.00 36.33 C
ATOM 11580 NE ARG C 141 148.240 190.963 210.606 1.00 36.33 N
ATOM 11581 CZ ARG C 141 147.542 190.589 209.540 1.00 36.33 C
ATOM 11582 NH1 ARG C 141 147.714 191.212 208.384 1.00 36.33 N
ATOM 11583 NH2 ARG C 141 146.675 189.592 209.629 1.00 36.33 N
ATOM 11584 N VAL C 142 154.035 189.634 212.829 1.00 56.06 N
ATOM 11585 CA VAL C 142 154.595 188.848 213.924 1.00 56.06 C
ATOM 11586 C VAL C 142 154.137 189.431 215.252 1.00 56.06 C
ATOM 11587 O VAL C 142 154.207 190.647 215.462 1.00 56.06 O
ATOM 11588 CB VAL C 142 156.128 188.805 213.851 1.00 56.06 C
ATOM 11589 CG1 VAL C 142 156.682 188.090 215.061 1.00 56.06 C
ATOM 11590 CG2 VAL C 142 156.573 188.122 212.577 1.00 56.06 C
ATOM 11591 N TYR C 143 153.675 188.567 216.150 1.00 40.41 N
ATOM 11592 CA TYR C 143 153.314 188.950 217.506 1.00 40.41 C
ATOM 11593 C TYR C 143 154.390 188.485 218.479 1.00 40.41 C
ATOM 11594 O TYR C 143 155.223 187.638 218.158 1.00 40.41 O
ATOM 11595 CB TYR C 143 151.962 188.352 217.892 1.00 40.41 C
ATOM 11596 CG TYR C 143 150.815 188.865 217.065 1.00 40.41 C
ATOM 11597 CD1 TYR C 143 150.206 190.069 217.362 1.00 40.41 C
ATOM 11598 CD2 TYR C 143 150.347 188.146 215.980 1.00 40.41 C
ATOM 11599 CE1 TYR C 143 149.157 190.539 216.605 1.00 40.41 C
ATOM 11600 CE2 TYR C 143 149.302 188.607 215.217 1.00 40.41 C
ATOM 11601 CZ TYR C 143 148.709 189.803 215.532 1.00 40.41 C
ATOM 11602 OH TYR C 143 147.664 190.263 214.768 1.00 40.41 O
ATOM 11603 N GLN C 144 154.353 189.039 219.691 1.00 56.06 N
ATOM 11604 CA GLN C 144 155.340 188.683 220.703 1.00 56.06 C
ATOM 11605 C GLN C 144 155.009 189.377 222.019 1.00 56.06 C
ATOM 11606 O GLN C 144 154.098 190.209 222.069 1.00 56.06 O
ATOM 11607 CB GLN C 144 156.743 189.050 220.210 1.00 56.06 C
ATOM 11608 CG GLN C 144 157.888 188.439 220.985 1.00 56.06 C

ATOM 11609 CD GLN C 144 159.222 188.687 220.317 1.00 56.06 C
ATOM 11610 OE1 GLN C 144 159.305 189.413 219.326 1.00 56.06 O
ATOM 11611 NE2 GLN C 144 160.270 188.057 220.833 1.00 56.06 N
ATOM 11612 N LYS C 145 155.721 189.037 223.092 1.00 32.95 N
ATOM 11613 CA LYS C 145 155.496 189.668 224.392 1.00 32.95 C
ATOM 11614 C LYS C 145 156.768 189.511 225.211 1.00 32.95 C
ATOM 11615 O LYS C 145 157.202 188.384 225.464 1.00 32.95 O
ATOM 11616 CB LYS C 145 154.304 189.051 225.110 1.00 32.95 C
ATOM 11617 CG LYS C 145 153.958 189.742 226.418 1.00 32.95 C
ATOM 11618 CD LYS C 145 152.802 189.063 227.129 1.00 32.95 C
ATOM 11619 CE LYS C 145 151.482 189.328 226.435 1.00 32.95 C
ATOM 11620 NZ LYS C 145 151.082 190.754 226.545 1.00 32.95 N
ATOM 11621 N VAL C 146 157.352 190.631 225.626 1.00 38.16 N
ATOM 11622 CA VAL C 146 158.629 190.648 226.328 1.00 38.16 C
ATOM 11623 C VAL C 146 158.381 190.931 227.800 1.00 38.16 C
ATOM 11624 O VAL C 146 157.565 191.794 228.145 1.00 38.16 O
ATOM 11625 CB VAL C 146 159.573 191.702 225.731 1.00 38.16 C
ATOM 11626 CG1 VAL C 146 160.892 191.715 226.478 1.00 38.16 C
ATOM 11627 CG2 VAL C 146 159.771 191.453 224.258 1.00 38.16 C
ATOM 11628 N LEU C 147 159.095 190.220 228.667 1.00 43.77 N
ATOM 11629 CA LEU C 147 159.065 190.493 230.097 1.00 43.77 C
ATOM 11630 C LEU C 147 160.471 190.338 230.649 1.00 43.77 C
ATOM 11631 O LEU C 147 161.135 189.333 230.383 1.00 43.77 O
ATOM 11632 CB LEU C 147 158.094 189.564 230.833 1.00 43.77 C
ATOM 11633 CG LEU C 147 158.496 188.106 231.041 1.00 43.77 C
ATOM 11634 CD1 LEU C 147 157.651 187.489 232.133 1.00 43.77 C
ATOM 11635 CD2 LEU C 147 158.326 187.334 229.759 1.00 43.77 C
ATOM 11636 N THR C 148 160.918 191.329 231.416 1.00 48.49 N
ATOM 11637 CA THR C 148 162.278 191.363 231.934 1.00 48.49 C
ATOM 11638 C THR C 148 162.246 191.568 233.438 1.00 48.49 C
ATOM 11639 O THR C 148 161.492 192.408 233.938 1.00 48.49 O
ATOM 11640 CB THR C 148 163.094 192.479 231.283 1.00 48.49 C
ATOM 11641 OG1 THR C 148 162.531 193.748 231.634 1.00 48.49 O
ATOM 11642 CG2 THR C 148 163.062 192.331 229.781 1.00 48.49 C

ATOM 11643 N PHE C 149 163.063 190.804 234.150 1.00 53.71 N
ATOM 11644 CA PHE C 149 163.210 190.965 235.585 1.00 53.71 C
ATOM 11645 C PHE C 149 164.386 191.886 235.897 1.00 53.71 C
ATOM 11646 O PHE C 149 165.260 192.131 235.066 1.00 53.71 O
ATOM 11647 CB PHE C 149 163.405 189.607 236.255 1.00 53.71 C
ATOM 11648 CG PHE C 149 162.199 188.722 236.191 1.00 53.71 C
ATOM 11649 CD1 PHE C 149 161.165 188.877 237.096 1.00 53.71 C
ATOM 11650 CD2 PHE C 149 162.097 187.735 235.229 1.00 53.71 C
ATOM 11651 CE1 PHE C 149 160.054 188.063 237.044 1.00 53.71 C
ATOM 11652 CE2 PHE C 149 160.986 186.918 235.172 1.00 53.71 C
ATOM 11653 CZ PHE C 149 159.963 187.083 236.080 1.00 53.71 C
ATOM 11654 N ARG C 150 164.394 192.403 237.122 1.00 64.52 N
ATOM 11655 CA ARG C 150 165.507 193.196 237.618 1.00 64.52 C
ATOM 11656 C ARG C 150 165.618 192.983 239.116 1.00 64.52 C
ATOM 11657 O ARG C 150 164.643 192.640 239.787 1.00 64.52 O
ATOM 11658 CB ARG C 150 165.341 194.687 237.312 1.00 64.52 C
ATOM 11659 CG ARG C 150 165.479 195.058 235.852 1.00 64.52 C
ATOM 11660 CD ARG C 150 165.297 196.553 235.673 1.00 64.52 C
ATOM 11661 NE ARG C 150 165.384 196.960 234.275 1.00 64.52 N
ATOM 11662 CZ ARG C 150 165.174 198.200 233.849 1.00 64.52 C
ATOM 11663 NH1 ARG C 150 164.862 199.155 234.715 1.00 64.52 N
ATOM 11664 NH2 ARG C 150 165.270 198.486 232.558 1.00 64.52 N
ATOM 11665 N ARG C 151 166.822 193.197 239.637 1.00 68.67 N
ATOM 11666 CA ARG C 151 167.086 193.042 241.061 1.00 68.67 C
ATOM 11667 C ARG C 151 168.047 194.140 241.477 1.00 68.67 C
ATOM 11668 O ARG C 151 169.192 194.170 241.017 1.00 68.67 O
ATOM 11669 CB ARG C 151 167.663 191.657 241.364 1.00 68.67 C
ATOM 11670 CG ARG C 151 166.673 190.532 241.111 1.00 68.67 C
ATOM 11671 CD ARG C 151 167.203 189.193 241.580 1.00 68.67 C
ATOM 11672 NE ARG C 151 168.385 188.783 240.832 1.00 68.67 N
ATOM 11673 CZ ARG C 151 168.344 188.100 239.694 1.00 68.67 C
ATOM 11674 NH1 ARG C 151 167.177 187.753 239.171 1.00 68.67 N
ATOM 11675 NH2 ARG C 151 169.469 187.766 239.077 1.00 68.67 N
ATOM 11676 N SER C 152 167.584 195.046 242.334 1.00 71.26 N

ATOM 11677 CA SER C 152 168.346 196.242 242.668 1.00 71.26 C
ATOM 11678 C SER C 152 168.230 196.520 244.156 1.00 71.26 C
ATOM 11679 O SER C 152 167.120 196.582 244.693 1.00 71.26 O
ATOM 11680 CB SER C 152 167.851 197.445 241.861 1.00 71.26 C
ATOM 11681 OG SER C 152 166.526 197.790 242.224 1.00 71.26 O
ATOM 11682 N TYR C 153 169.370 196.689 244.814 1.00 69.38 N
ATOM 11683 CA TYR C 153 169.418 197.162 246.188 1.00 69.38 C
ATOM 11684 C TYR C 153 169.791 198.637 246.180 1.00 69.38 C
ATOM 11685 O TYR C 153 170.658 199.062 245.412 1.00 69.38 O
ATOM 11686 CB TYR C 153 170.424 196.360 247.012 1.00 69.38 C
ATOM 11687 CG TYR C 153 170.443 196.725 248.475 1.00 69.38 C
ATOM 11688 CD1 TYR C 153 169.421 196.322 249.319 1.00 69.38 C
ATOM 11689 CD2 TYR C 153 171.484 197.462 249.014 1.00 69.38 C
ATOM 11690 CE1 TYR C 153 169.431 196.649 250.657 1.00 69.38 C
ATOM 11691 CE2 TYR C 153 171.503 197.792 250.352 1.00 69.38 C
ATOM 11692 CZ TYR C 153 170.473 197.383 251.168 1.00 69.38 C
ATOM 11693 OH TYR C 153 170.481 197.709 252.503 1.00 69.38 O
ATOM 11694 N ALA C 154 169.135 199.415 247.037 1.00 75.33 N
ATOM 11695 CA ALA C 154 169.196 200.872 246.969 1.00 75.33 C
ATOM 11696 C ALA C 154 169.783 201.420 248.261 1.00 75.33 C
ATOM 11697 O ALA C 154 169.152 201.332 249.319 1.00 75.33 O
ATOM 11698 CB ALA C 154 167.808 201.461 246.716 1.00 75.33 C
ATOM 11699 N TYR C 155 170.986 201.990 248.177 1.00 76.52 N
ATOM 11700 CA TYR C 155 171.556 202.716 249.304 1.00 76.52 C
ATOM 11701 C TYR C 155 170.785 204.001 249.567 1.00 76.52 C
ATOM 11702 O TYR C 155 169.823 204.314 248.860 1.00 76.52 O
ATOM 11703 CB TYR C 155 173.028 203.054 249.070 1.00 76.52 C
ATOM 11704 CG TYR C 155 173.971 201.895 249.247 1.00 76.52 C
ATOM 11705 CD1 TYR C 155 173.536 200.701 249.795 1.00 76.52 C
ATOM 11706 CD2 TYR C 155 175.309 202.011 248.907 1.00 76.52 C
ATOM 11707 CE1 TYR C 155 174.402 199.641 249.970 1.00 76.52 C
ATOM 11708 CE2 TYR C 155 176.182 200.960 249.078 1.00 76.52 C
ATOM 11709 CZ TYR C 155 175.725 199.779 249.613 1.00 76.52 C
ATOM 11710 OH TYR C 155 176.595 198.730 249.785 1.00 76.52 O

ATOM 11711 N ILE C 156 171.209 204.753 250.585 1.00 79.61 N
ATOM 11712 CA ILE C 156 170.619 206.059 250.848 1.00 79.61 C
ATOM 11713 C ILE C 156 170.983 207.072 249.772 1.00 79.61 C
ATOM 11714 O ILE C 156 170.311 208.102 249.645 1.00 79.61 O
ATOM 11715 CB ILE C 156 171.047 206.563 252.239 1.00 79.61 C
ATOM 11716 CG1 ILE C 156 170.257 207.814 252.628 1.00 79.61 C
ATOM 11717 CG2 ILE C 156 172.541 206.824 252.273 1.00 79.61 C
ATOM 11718 CD1 ILE C 156 168.783 207.566 252.823 1.00 79.61 C
ATOM 11719 N HIS C 157 172.033 206.816 248.992 1.00 81.41 N
ATOM 11720 CA HIS C 157 172.426 207.702 247.904 1.00 81.41 C
ATOM 11721 C HIS C 157 172.269 207.047 246.538 1.00 81.41 C
ATOM 11722 O HIS C 157 171.572 207.583 245.674 1.00 81.41 O
ATOM 11723 CB HIS C 157 173.872 208.177 248.098 1.00 81.41 C
ATOM 11724 CG HIS C 157 174.061 209.072 249.282 1.00 81.41 C
ATOM 11725 ND1 HIS C 157 174.399 208.595 250.529 1.00 81.41 N
ATOM 11726 CD2 HIS C 157 173.953 210.415 249.409 1.00 81.41 C
ATOM 11727 CE1 HIS C 157 174.495 209.606 251.374 1.00 81.41 C
ATOM 11728 NE2 HIS C 157 174.228 210.722 250.720 1.00 81.41 N
ATOM 11729 N THR C 158 172.896 205.896 246.319 1.00 81.68 N
ATOM 11730 CA THR C 158 172.918 205.251 245.015 1.00 81.68 C
ATOM 11731 C THR C 158 172.201 203.909 245.064 1.00 81.68 C
ATOM 11732 O THR C 158 172.057 203.298 246.127 1.00 81.68 O
ATOM 11733 CB THR C 158 174.355 205.049 244.528 1.00 81.68 C
ATOM 11734 OG1 THR C 158 175.060 204.214 245.454 1.00 81.68 O
ATOM 11735 CG2 THR C 158 175.068 206.385 244.413 1.00 81.68 C
ATOM 11736 N THR C 159 171.752 203.456 243.897 1.00 79.19 N
ATOM 11737 CA THR C 159 171.055 202.186 243.749 1.00 79.19 C
ATOM 11738 C THR C 159 171.809 201.320 242.749 1.00 79.19 C
ATOM 11739 O THR C 159 172.140 201.779 241.651 1.00 79.19 O
ATOM 11740 CB THR C 159 169.615 202.403 243.284 1.00 79.19 C
ATOM 11741 OG1 THR C 159 169.618 202.985 241.976 1.00 79.19 O
ATOM 11742 CG2 THR C 159 168.892 203.342 244.236 1.00 79.19 C
ATOM 11743 N TYR C 160 172.082 200.078 243.131 1.00 75.68 N
ATOM 11744 CA TYR C 160 172.861 199.165 242.309 1.00 75.68 C

ATOM 11745 C TYR C 160 171.953 198.283 241.457 1.00 75.68 C
ATOM 11746 O TYR C 160 170.753 198.156 241.708 1.00 75.68 O
ATOM 11747 CB TYR C 160 173.766 198.304 243.190 1.00 75.68 C
ATOM 11748 CG TYR C 160 174.872 199.085 243.858 1.00 75.68 C
ATOM 11749 CD1 TYR C 160 176.034 199.399 243.171 1.00 75.68 C
ATOM 11750 CD2 TYR C 160 174.753 199.515 245.173 1.00 75.68 C
ATOM 11751 CE1 TYR C 160 177.048 200.114 243.772 1.00 75.68 C
ATOM 11752 CE2 TYR C 160 175.767 200.233 245.782 1.00 75.68 C
ATOM 11753 CZ TYR C 160 176.910 200.528 245.074 1.00 75.68 C
ATOM 11754 OH TYR C 160 177.927 201.242 245.667 1.00 75.68 O
ATOM 11755 N LEU C 161 172.545 197.673 240.432 1.00 71.78 N
ATOM 11756 CA LEU C 161 171.841 196.762 239.531 1.00 71.78 C
ATOM 11757 C LEU C 161 172.437 195.373 239.732 1.00 71.78 C
ATOM 11758 O LEU C 161 173.537 195.082 239.253 1.00 71.78 O
ATOM 11759 CB LEU C 161 171.956 197.225 238.081 1.00 71.78 C
ATOM 11760 CG LEU C 161 171.191 196.425 237.022 1.00 71.78 C
ATOM 11761 CD1 LEU C 161 169.690 196.501 237.256 1.00 71.78 C
ATOM 11762 CD2 LEU C 161 171.541 196.908 235.622 1.00 71.78 C
ATOM 11763 N LEU C 162 171.705 194.516 240.443 1.00 70.62 N
ATOM 11764 CA LEU C 162 172.241 193.217 240.832 1.00 70.62 C
ATOM 11765 C LEU C 162 172.080 192.171 239.734 1.00 70.62 C
ATOM 11766 O LEU C 162 172.934 191.289 239.590 1.00 70.62 O
ATOM 11767 CB LEU C 162 171.574 192.750 242.123 1.00 70.62 C
ATOM 11768 CG LEU C 162 171.970 193.590 243.334 1.00 70.62 C
ATOM 11769 CD1 LEU C 162 171.130 193.241 244.540 1.00 70.62 C
ATOM 11770 CD2 LEU C 162 173.430 193.355 243.630 1.00 70.62 C
ATOM 11771 N GLY C 163 171.004 192.238 238.960 1.00 67.31 N
ATOM 11772 CA GLY C 163 170.816 191.251 237.914 1.00 67.31 C
ATOM 11773 C GLY C 163 169.716 191.664 236.965 1.00 67.31 C
ATOM 11774 O GLY C 163 169.011 192.653 237.181 1.00 67.31 O
ATOM 11775 N SER C 164 169.584 190.886 235.895 1.00 60.15 N
ATOM 11776 CA SER C 164 168.525 191.083 234.916 1.00 60.15 C
ATOM 11777 C SER C 164 168.565 189.929 233.929 1.00 60.15 C
ATOM 11778 O SER C 164 169.633 189.385 233.638 1.00 60.15 O

ATOM 11779 CB SER C 164 168.674 192.419 234.179 1.00 60.15 C
ATOM 11780 OG SER C 164 169.826 192.422 233.356 1.00 60.15 O
ATOM 11781 N ASN C 165 167.390 189.555 233.428 1.00 56.03 N
ATOM 11782 CA ASN C 165 167.307 188.477 232.447 1.00 56.03 C
ATOM 11783 C ASN C 165 166.015 188.637 231.644 1.00 56.03 C
ATOM 11784 O ASN C 165 164.935 188.287 232.127 1.00 56.03 O
ATOM 11785 CB ASN C 165 167.394 187.118 233.125 1.00 56.03 C
ATOM 11786 CG ASN C 165 166.436 186.982 234.289 1.00 56.03 C
ATOM 11787 OD1 ASN C 165 165.698 187.912 234.613 1.00 56.03 O
ATOM 11788 ND2 ASN C 165 166.431 185.811 234.916 1.00 56.03 N
ATOM 11789 N THR C 166 166.142 189.157 230.426 1.00 48.54 N
ATOM 11790 CA THR C 166 164.999 189.200 229.531 1.00 48.54 C
ATOM 11791 C THR C 166 164.538 187.779 229.217 1.00 48.54 C
ATOM 11792 O THR C 166 165.288 186.809 229.357 1.00 48.54 O
ATOM 11793 CB THR C 166 165.354 189.941 228.242 1.00 48.54 C
ATOM 11794 OG1 THR C 166 166.372 189.218 227.539 1.00 48.54 O
ATOM 11795 CG2 THR C 166 165.872 191.341 228.554 1.00 48.54 C
ATOM 11796 N GLU C 167 163.282 187.655 228.797 1.00 47.89 N
ATOM 11797 CA GLU C 167 162.738 186.342 228.455 1.00 47.89 C
ATOM 11798 C GLU C 167 161.606 186.546 227.459 1.00 47.89 C
ATOM 11799 O GLU C 167 160.534 187.028 227.831 1.00 47.89 O
ATOM 11800 CB GLU C 167 162.258 185.609 229.701 1.00 47.89 C
ATOM 11801 CG GLU C 167 161.761 184.195 229.440 1.00 47.89 C
ATOM 11802 CD GLU C 167 161.379 183.466 230.714 1.00 47.89 C
ATOM 11803 OE1 GLU C 167 161.492 184.073 231.799 1.00 47.89 O
ATOM 11804 OE2 GLU C 167 160.968 182.288 230.632 1.00 47.89 O
ATOM 11805 N TYR C 168 161.852 186.184 226.205 1.00 43.31 N
ATOM 11806 CA TYR C 168 160.860 186.361 225.156 1.00 43.31 C
ATOM 11807 C TYR C 168 159.929 185.158 225.105 1.00 43.31 C
ATOM 11808 O TYR C 168 160.373 184.009 225.155 1.00 43.31 O
ATOM 11809 CB TYR C 168 161.563 186.550 223.817 1.00 43.31 C
ATOM 11810 CG TYR C 168 162.425 187.787 223.785 1.00 43.31 C
ATOM 11811 CD1 TYR C 168 161.893 189.019 223.459 1.00 43.31 C
ATOM 11812 CD2 TYR C 168 163.768 187.723 224.119 1.00 43.31 C

ATOM 11813 CE1 TYR C 168 162.680 190.155 223.441 1.00 43.31 C
ATOM 11814 CE2 TYR C 168 164.563 188.848 224.104 1.00 43.31 C
ATOM 11815 CZ TYR C 168 164.014 190.063 223.767 1.00 43.31 C
ATOM 11816 OH TYR C 168 164.802 191.187 223.756 1.00 43.31 O
ATOM 11817 N VAL C 169 158.630 185.424 224.999 1.00 38.44 N
ATOM 11818 CA VAL C 169 157.641 184.354 225.025 1.00 38.44 C
ATOM 11819 C VAL C 169 156.384 184.810 224.298 1.00 38.44 C
ATOM 11820 O VAL C 169 155.935 185.948 224.467 1.00 38.44 O
ATOM 11821 CB VAL C 169 157.328 183.933 226.472 1.00 38.44 C
ATOM 11822 CG1 VAL C 169 156.622 185.056 227.211 1.00 38.44 C
ATOM 11823 CG2 VAL C 169 156.500 182.665 226.490 1.00 38.44 C
ATOM 11824 N ALA C 170 155.816 183.932 223.477 1.00 35.57 N
ATOM 11825 CA ALA C 170 154.633 184.290 222.717 1.00 35.57 C
ATOM 11826 C ALA C 170 153.407 184.335 223.625 1.00 35.57 C
ATOM 11827 O ALA C 170 153.368 183.669 224.663 1.00 35.57 O
ATOM 11828 CB ALA C 170 154.401 183.299 221.583 1.00 35.57 C
ATOM 11829 N PRO C 171 152.393 185.109 223.258 1.00 33.78 N
ATOM 11830 CA PRO C 171 151.224 185.261 224.120 1.00 33.78 C
ATOM 11831 C PRO C 171 150.266 184.099 223.947 1.00 33.78 C
ATOM 11832 O PRO C 171 150.469 183.239 223.078 1.00 33.78 O
ATOM 11833 CB PRO C 171 150.596 186.570 223.623 1.00 33.78 C
ATOM 11834 CG PRO C 171 150.966 186.612 222.189 1.00 33.78 C
ATOM 11835 CD PRO C 171 152.333 185.994 222.085 1.00 33.78 C
ATOM 11836 N PRO C 172 149.209 184.038 224.753 1.00 36.13 N
ATOM 11837 CA PRO C 172 148.190 183.000 224.556 1.00 36.13 C
ATOM 11838 C PRO C 172 147.404 183.224 223.277 1.00 36.13 C
ATOM 11839 O PRO C 172 147.675 184.172 222.535 1.00 36.13 O
ATOM 11840 CB PRO C 172 147.295 183.146 225.793 1.00 36.13 C
ATOM 11841 CG PRO C 172 148.144 183.844 226.800 1.00 36.13 C
ATOM 11842 CD PRO C 172 149.000 184.780 226.006 1.00 36.13 C
ATOM 11843 N MET C 173 146.422 182.368 223.010 1.00 43.41 N
ATOM 11844 CA MET C 173 145.642 182.495 221.788 1.00 43.41 C
ATOM 11845 C MET C 173 144.478 183.464 221.923 1.00 43.41 C
ATOM 11846 O MET C 173 144.147 184.151 220.952 1.00 43.41 O

ATOM 11847 CB MET C 173 145.119 181.127 221.348 1.00 43.41 C
ATOM 11848 CG MET C 173 144.422 181.146 220.001 1.00 43.41 C
ATOM 11849 SD MET C 173 145.534 181.586 218.655 1.00 43.41 S
ATOM 11850 CE MET C 173 144.366 182.191 217.442 1.00 43.41 C
ATOM 11851 N TRP C 174 143.845 183.538 223.097 1.00 56.04 N
ATOM 11852 CA TRP C 174 142.746 184.483 223.267 1.00 56.04 C
ATOM 11853 C TRP C 174 143.217 185.922 223.114 1.00 56.04 C
ATOM 11854 O TRP C 174 142.452 186.781 222.663 1.00 56.04 O
ATOM 11855 CB TRP C 174 142.077 184.295 224.629 1.00 56.04 C
ATOM 11856 CG TRP C 174 142.981 184.530 225.804 1.00 56.04 C
ATOM 11857 CD1 TRP C 174 143.271 185.727 226.394 1.00 56.04 C
ATOM 11858 CD2 TRP C 174 143.688 183.536 226.550 1.00 56.04 C
ATOM 11859 NE1 TRP C 174 144.126 185.541 227.449 1.00 56.04 N
ATOM 11860 CE2 TRP C 174 144.397 184.204 227.568 1.00 56.04 C
ATOM 11861 CE3 TRP C 174 143.798 182.147 226.452 1.00 56.04 C
ATOM 11862 CZ2 TRP C 174 145.203 183.531 228.480 1.00 56.04 C
ATOM 11863 CZ3 TRP C 174 144.598 181.480 227.360 1.00 56.04 C
ATOM 11864 CH2 TRP C 174 145.290 182.172 228.360 1.00 56.04 C
ATOM 11865 N GLU C 175 144.465 186.204 223.481 1.00 44.46 N
ATOM 11866 CA GLU C 175 144.972 187.568 223.449 1.00 44.46 C
ATOM 11867 C GLU C 175 145.273 188.051 222.038 1.00 44.46 C
ATOM 11868 O GLU C 175 145.373 189.264 221.826 1.00 44.46 O
ATOM 11869 CB GLU C 175 146.220 187.676 224.327 1.00 44.46 C
ATOM 11870 CG GLU C 175 146.748 189.084 224.499 1.00 44.46 C
ATOM 11871 CD GLU C 175 147.892 189.155 225.490 1.00 44.46 C
ATOM 11872 OE1 GLU C 175 148.284 188.098 226.027 1.00 44.46 O
ATOM 11873 OE2 GLU C 175 148.397 190.269 225.740 1.00 44.46 O
ATOM 11874 N ILE C 176 145.407 187.146 221.074 1.00 32.52 N
ATOM 11875 CA ILE C 176 145.506 187.523 219.674 1.00 32.52 C
ATOM 11876 C ILE C 176 144.115 187.607 219.037 1.00 32.52 C
ATOM 11877 O ILE C 176 143.988 187.799 217.830 1.00 32.52 O
ATOM 11878 CB ILE C 176 146.435 186.572 218.903 1.00 32.52 C
ATOM 11879 CG1 ILE C 176 147.782 186.481 219.611 1.00 32.52 C
ATOM 11880 CG2 ILE C 176 146.737 187.100 217.520 1.00 32.52 C

ATOM 11881 CD1 ILE C 176 148.677 185.391 219.075 1.00 32.52 C
ATOM 11882 N HIS C 177 143.067 187.473 219.845 1.00 41.12 N
ATOM 11883 CA HIS C 177 141.724 187.886 219.469 1.00 41.12 C
ATOM 11884 C HIS C 177 141.317 189.172 220.166 1.00 41.12 C
ATOM 11885 O HIS C 177 140.209 189.668 219.940 1.00 41.12 O
ATOM 11886 CB HIS C 177 140.706 186.788 219.787 1.00 41.12 C
ATOM 11887 CG HIS C 177 140.886 185.547 218.977 1.00 41.12 C
ATOM 11888 ND1 HIS C 177 140.564 185.480 217.640 1.00 41.12 N
ATOM 11889 CD2 HIS C 177 141.345 184.321 219.316 1.00 41.12 C
ATOM 11890 CE1 HIS C 177 140.824 184.267 217.188 1.00 41.12 C
ATOM 11891 NE2 HIS C 177 141.298 183.543 218.186 1.00 41.12 N
ATOM 11892 N HIS C 178 142.184 189.717 221.013 1.00 44.40 N
ATOM 11893 CA HIS C 178 141.956 191.001 221.645 1.00 44.40 C
ATOM 11894 C HIS C 178 142.949 192.046 221.165 1.00 44.40 C
ATOM 11895 O HIS C 178 142.741 193.239 221.407 1.00 44.40 O
ATOM 11896 CB HIS C 178 142.032 190.861 223.169 1.00 44.40 C
ATOM 11897 CG HIS C 178 141.580 192.077 223.910 1.00 44.40 C
ATOM 11898 ND1 HIS C 178 142.423 193.127 224.199 1.00 44.40 N
ATOM 11899 CD2 HIS C 178 140.371 192.413 224.417 1.00 44.40 C
ATOM 11900 CE1 HIS C 178 141.753 194.058 224.855 1.00 44.40 C
ATOM 11901 NE2 HIS C 178 140.506 193.649 225.000 1.00 44.40 N
ATOM 11902 N ILE C 179 144.012 191.633 220.478 1.00 36.97 N
ATOM 11903 CA ILE C 179 144.894 192.571 219.798 1.00 36.97 C
ATOM 11904 C ILE C 179 144.419 192.856 218.378 1.00 36.97 C
ATOM 11905 O ILE C 179 144.733 193.926 217.837 1.00 36.97 O
ATOM 11906 CB ILE C 179 146.348 192.052 219.782 1.00 36.97 C
ATOM 11907 CG1 ILE C 179 146.891 191.934 221.202 1.00 36.97 C
ATOM 11908 CG2 ILE C 179 147.243 192.960 218.966 1.00 36.97 C
ATOM 11909 CD1 ILE C 179 148.221 191.224 221.278 1.00 36.97 C
ATOM 11910 N ASN C 180 143.658 191.948 217.769 1.00 34.05 N
ATOM 11911 CA ASN C 180 143.116 192.154 216.434 1.00 34.05 C
ATOM 11912 C ASN C 180 141.645 192.548 216.464 1.00 34.05 C
ATOM 11913 O ASN C 180 140.945 192.391 215.461 1.00 34.05 O
ATOM 11914 CB ASN C 180 143.310 190.903 215.580 1.00 34.05 C

ATOM 11915 CG ASN C 180 144.755 190.684 215.196 1.00 34.05 C
ATOM 11916 OD1 ASN C 180 145.473 191.632 214.886 1.00 34.05 O
ATOM 11917 ND2 ASN C 180 145.187 189.430 215.202 1.00 34.05 N
ATOM 11918 N SER C 181 141.162 193.057 217.595 1.00 39.16 N
ATOM 11919 CA SER C 181 139.800 193.577 217.667 1.00 39.16 C
ATOM 11920 C SER C 181 139.691 194.945 218.318 1.00 39.16 C
ATOM 11921 O SER C 181 138.728 195.663 218.028 1.00 39.16 O
ATOM 11922 CB SER C 181 138.892 192.599 218.422 1.00 39.16 C
ATOM 11923 OG SER C 181 138.763 191.376 217.719 1.00 39.16 O
ATOM 11924 N HIS C 182 140.621 195.341 219.183 1.00 41.54 N
ATOM 11925 CA HIS C 182 140.605 196.680 219.754 1.00 41.54 C
ATOM 11926 C HIS C 182 141.980 197.311 219.879 1.00 41.54 C
ATOM 11927 O HIS C 182 142.063 198.460 220.322 1.00 41.54 O
ATOM 11928 CB HIS C 182 139.938 196.662 221.132 1.00 41.54 C
ATOM 11929 CG HIS C 182 138.487 196.306 221.089 1.00 41.54 C
ATOM 11930 ND1 HIS C 182 138.041 195.003 221.134 1.00 41.54 N
ATOM 11931 CD2 HIS C 182 137.381 197.080 220.995 1.00 41.54 C
ATOM 11932 CE1 HIS C 182 136.722 194.990 221.075 1.00 41.54 C
ATOM 11933 NE2 HIS C 182 136.296 196.238 220.991 1.00 41.54 N
ATOM 11934 N SER C 183 143.055 196.615 219.512 1.00 44.37 N
ATOM 11935 CA SER C 183 144.417 197.130 219.642 1.00 44.37 C
ATOM 11936 C SER C 183 144.778 197.417 221.097 1.00 44.37 C
ATOM 11937 O SER C 183 145.618 198.272 221.380 1.00 44.37 O
ATOM 11938 CB SER C 183 144.626 198.380 218.782 1.00 44.37 C
ATOM 11939 OG SER C 183 143.860 199.471 219.259 1.00 44.37 O
ATOM 11940 N GLN C 184 144.154 196.704 222.031 1.00 48.06 N
ATOM 11941 CA GLN C 184 144.458 196.821 223.453 1.00 48.06 C
ATOM 11942 C GLN C 184 145.139 195.538 223.909 1.00 48.06 C
ATOM 11943 O GLN C 184 144.680 194.436 223.593 1.00 48.06 O
ATOM 11944 CB GLN C 184 143.201 197.094 224.274 1.00 48.06 C
ATOM 11945 CG GLN C 184 142.610 198.471 224.063 1.00 48.06 C
ATOM 11946 CD GLN C 184 141.408 198.720 224.946 1.00 48.06 C
ATOM 11947 OE1 GLN C 184 140.975 197.837 225.684 1.00 48.06 O
ATOM 11948 NE2 GLN C 184 140.864 199.929 224.878 1.00 48.06 N

ATOM 11949 N CYS C 185 146.228 195.687 224.650 1.00 51.50 N
ATOM 11950 CA CYS C 185 147.017 194.562 225.124 1.00 51.50 C
ATOM 11951 C CYS C 185 146.975 194.490 226.645 1.00 51.50 C
ATOM 11952 O CYS C 185 147.042 195.510 227.336 1.00 51.50 O
ATOM 11953 CB CYS C 185 148.454 194.704 224.630 1.00 51.50 C
ATOM 11954 SG CYS C 185 149.597 193.395 225.062 1.00 51.50 S
ATOM 11955 N TYR C 186 146.870 193.269 227.164 1.00 54.21 N
ATOM 11956 CA TYR C 186 146.723 193.058 228.596 1.00 54.21 C
ATOM 11957 C TYR C 186 148.036 193.337 229.323 1.00 54.21 C
ATOM 11958 O TYR C 186 149.071 193.618 228.714 1.00 54.21 O
ATOM 11959 CB TYR C 186 146.235 191.640 228.874 1.00 54.21 C
ATOM 11960 CG TYR C 186 144.798 191.417 228.484 1.00 54.21 C
ATOM 11961 CD1 TYR C 186 143.945 192.488 228.278 1.00 54.21 C
ATOM 11962 CD2 TYR C 186 144.297 190.138 228.313 1.00 54.21 C
ATOM 11963 CE1 TYR C 186 142.631 192.294 227.921 1.00 54.21 C
ATOM 11964 CE2 TYR C 186 142.984 189.933 227.953 1.00 54.21 C
ATOM 11965 CZ TYR C 186 142.155 191.015 227.758 1.00 54.21 C
ATOM 11966 OH TYR C 186 140.843 190.819 227.398 1.00 54.21 O
ATOM 11967 N SER C 187 147.995 193.246 230.650 1.00 52.46 N
ATOM 11968 CA SER C 187 149.152 193.538 231.488 1.00 52.46 C
ATOM 11969 C SER C 187 149.311 192.480 232.568 1.00 52.46 C
ATOM 11970 O SER C 187 149.607 192.790 233.726 1.00 52.46 O
ATOM 11971 CB SER C 187 149.039 194.925 232.114 1.00 52.46 C
ATOM 11972 OG SER C 187 147.957 194.976 233.026 1.00 52.46 O
ATOM 11973 N SER C 188 149.114 191.216 232.206 1.00 53.84 N
ATOM 11974 CA SER C 188 149.297 190.112 233.145 1.00 53.84 C
ATOM 11975 C SER C 188 149.465 188.839 232.338 1.00 53.84 C
ATOM 11976 O SER C 188 148.535 188.427 231.640 1.00 53.84 O
ATOM 11977 CB SER C 188 148.111 189.996 234.099 1.00 53.84 C
ATOM 11978 OG SER C 188 146.940 189.602 233.407 1.00 53.84 O
ATOM 11979 N TYR C 189 150.633 188.215 232.434 1.00 51.47 N
ATOM 11980 CA TYR C 189 150.966 187.047 231.624 1.00 51.47 C
ATOM 11981 C TYR C 189 151.044 185.818 232.525 1.00 51.47 C
ATOM 11982 O TYR C 189 152.117 185.448 233.002 1.00 51.47 O

ATOM 11983 CB TYR C 189 152.270 187.271 230.876 1.00 51.47 C
ATOM 11984 CG TYR C 189 152.659 186.120 229.988 1.00 51.47 C
ATOM 11985 CD1 TYR C 189 151.935 185.836 228.843 1.00 51.47 C
ATOM 11986 CD2 TYR C 189 153.764 185.336 230.274 1.00 51.47 C
ATOM 11987 CE1 TYR C 189 152.283 184.791 228.020 1.00 51.47 C
ATOM 11988 CE2 TYR C 189 154.125 184.293 229.450 1.00 51.47 C
ATOM 11989 CZ TYR C 189 153.380 184.023 228.328 1.00 51.47 C
ATOM 11990 OH TYR C 189 153.730 182.981 227.504 1.00 51.47 O
ATOM 11991 N SER C 190 149.898 185.178 232.740 1.00 59.27 N
ATOM 11992 CA SER C 190 149.871 183.942 233.504 1.00 59.27 C
ATOM 11993 C SER C 190 150.629 182.849 232.758 1.00 59.27 C
ATOM 11994 O SER C 190 150.827 182.913 231.543 1.00 59.27 O
ATOM 11995 CB SER C 190 148.431 183.505 233.767 1.00 59.27 C
ATOM 11996 OG SER C 190 147.776 183.160 232.559 1.00 59.27 O
ATOM 11997 N ARG C 191 151.059 181.833 233.503 1.00 72.29 N
ATOM 11998 CA ARG C 191 151.873 180.768 232.936 1.00 72.29 C
ATOM 11999 C ARG C 191 151.651 179.482 233.719 1.00 72.29 C
ATOM 12000 O ARG C 191 150.877 179.434 234.679 1.00 72.29 O
ATOM 12001 CB ARG C 191 153.359 181.135 232.943 1.00 72.29 C
ATOM 12002 CG ARG C 191 153.739 182.245 231.993 1.00 72.29 C
ATOM 12003 CD ARG C 191 155.218 182.568 232.096 1.00 72.29 C
ATOM 12004 NE ARG C 191 156.056 181.458 231.656 1.00 72.29 N
ATOM 12005 CZ ARG C 191 157.376 181.419 231.799 1.00 72.29 C
ATOM 12006 NH1 ARG C 191 158.010 182.432 232.373 1.00 72.29 N
ATOM 12007 NH2 ARG C 191 158.063 180.371 231.368 1.00 72.29 N
ATOM 12008 N VAL C 192 152.347 178.432 233.287 1.00 88.44 N
ATOM 12009 CA VAL C 192 152.403 177.152 233.981 1.00 88.44 C
ATOM 12010 C VAL C 192 153.792 176.574 233.759 1.00 88.44 C
ATOM 12011 O VAL C 192 154.160 176.258 232.622 1.00 88.44 O
ATOM 12012 CB VAL C 192 151.327 176.174 233.474 1.00 88.44 C
ATOM 12013 CG1 VAL C 192 151.501 174.810 234.124 1.00 88.44 C
ATOM 12014 CG2 VAL C 192 149.932 176.718 233.724 1.00 88.44 C
ATOM 12015 N ILE C 193 154.579 176.430 234.823 1.00 94.95 N
ATOM 12016 CA ILE C 193 155.877 175.792 234.647 1.00 94.95 C

ATOM 12017 C ILE C 193 155.842 174.391 235.245 1.00 94.95 C
ATOM 12018 O ILE C 193 156.291 174.155 236.372 1.00 94.95 O
ATOM 12019 CB ILE C 193 157.002 176.656 235.254 1.00 94.95 C
ATOM 12020 CG1 ILE C 193 158.368 176.007 235.022 1.00 94.95 C
ATOM 12021 CG2 ILE C 193 156.732 176.990 236.725 1.00 94.95 C
ATOM 12022 CD1 ILE C 193 159.531 176.931 235.296 1.00 94.95 C
ATOM 12023 N ALA C 194 155.307 173.452 234.467 1.00103.26 N
ATOM 12024 CA ALA C 194 155.403 172.008 234.653 1.00103.26 C
ATOM 12025 C ALA C 194 154.669 171.463 235.876 1.00103.26 C
ATOM 12026 O ALA C 194 154.400 170.260 235.941 1.00103.26 O
ATOM 12027 CB ALA C 194 156.876 171.598 234.728 1.00103.26 C
ATOM 12028 N GLY C 195 154.327 172.312 236.843 1.00100.56 N
ATOM 12029 CA GLY C 195 153.495 171.861 237.940 1.00100.56 C
ATOM 12030 C GLY C 195 152.675 172.927 238.633 1.00100.56 C
ATOM 12031 O GLY C 195 151.981 172.632 239.610 1.00100.56 O
ATOM 12032 N THR C 196 152.733 174.166 238.152 1.00 93.71 N
ATOM 12033 CA THR C 196 152.219 175.293 238.919 1.00 93.71 C
ATOM 12034 C THR C 196 151.695 176.363 237.971 1.00 93.71 C
ATOM 12035 O THR C 196 151.672 176.191 236.749 1.00 93.71 O
ATOM 12036 CB THR C 196 153.294 175.888 239.842 1.00 93.71 C
ATOM 12037 OG1 THR C 196 154.435 176.278 239.066 1.00 93.71 O
ATOM 12038 CG2 THR C 196 153.719 174.900 240.924 1.00 93.71 C
ATOM 12039 N VAL C 197 151.271 177.480 238.558 1.00 81.18 N
ATOM 12040 CA VAL C 197 150.828 178.656 237.819 1.00 81.18 C
ATOM 12041 C VAL C 197 151.292 179.890 238.581 1.00 81.18 C
ATOM 12042 O VAL C 197 150.842 180.138 239.705 1.00 81.18 O
ATOM 12043 CB VAL C 197 149.302 178.683 237.616 1.00 81.18 C
ATOM 12044 CG1 VAL C 197 148.882 177.577 236.676 1.00 81.18 C
ATOM 12045 CG2 VAL C 197 148.578 178.516 238.943 1.00 81.18 C
ATOM 12046 N PHE C 198 152.203 180.650 237.986 1.00 75.80 N
ATOM 12047 CA PHE C 198 152.629 181.926 238.535 1.00 75.80 C
ATOM 12048 C PHE C 198 152.157 183.042 237.615 1.00 75.80 C
ATOM 12049 O PHE C 198 152.295 182.952 236.392 1.00 75.80 O
ATOM 12050 CB PHE C 198 154.150 181.978 238.715 1.00 75.80 C

ATOM 12051 CG PHE C 198 154.922 181.894 237.431 1.00 75.80 C
ATOM 12052 CD1 PHE C 198 155.249 180.666 236.886 1.00 75.80 C
ATOM 12053 CD2 PHE C 198 155.343 183.044 236.781 1.00 75.80 C
ATOM 12054 CE1 PHE C 198 155.964 180.585 235.708 1.00 75.80 C
ATOM 12055 CE2 PHE C 198 156.058 182.968 235.603 1.00 75.80 C
ATOM 12056 CZ PHE C 198 156.371 181.738 235.069 1.00 75.80 C
ATOM 12057 N VAL C 199 151.596 184.089 238.210 1.00 59.48 N
ATOM 12058 CA VAL C 199 150.984 185.166 237.444 1.00 59.48 C
ATOM 12059 C VAL C 199 151.878 186.393 237.495 1.00 59.48 C
ATOM 12060 O VAL C 199 151.902 187.111 238.499 1.00 59.48 O
ATOM 12061 CB VAL C 199 149.580 185.498 237.977 1.00 59.48 C
ATOM 12062 CG1 VAL C 199 148.984 186.648 237.194 1.00 59.48 C
ATOM 12063 CG2 VAL C 199 148.684 184.276 237.915 1.00 59.48 C
ATOM 12064 N ALA C 200 152.627 186.640 236.426 1.00 54.82 N
ATOM 12065 CA ALA C 200 153.412 187.860 236.364 1.00 54.82 C
ATOM 12066 C ALA C 200 152.491 189.073 236.313 1.00 54.82 C
ATOM 12067 O ALA C 200 151.291 188.968 236.050 1.00 54.82 O
ATOM 12068 CB ALA C 200 154.340 187.844 235.151 1.00 54.82 C
ATOM 12069 N TYR C 201 153.067 190.239 236.582 1.00 59.31 N
ATOM 12070 CA TYR C 201 152.331 191.493 236.543 1.00 59.31 C
ATOM 12071 C TYR C 201 153.260 192.582 236.029 1.00 59.31 C
ATOM 12072 O TYR C 201 154.484 192.452 236.082 1.00 59.31 O
ATOM 12073 CB TYR C 201 151.754 191.850 237.920 1.00 59.31 C
ATOM 12074 CG TYR C 201 150.606 190.959 238.341 1.00 59.31 C
ATOM 12075 CD1 TYR C 201 149.312 191.216 237.915 1.00 59.31 C
ATOM 12076 CD2 TYR C 201 150.818 189.851 239.148 1.00 59.31 C
ATOM 12077 CE1 TYR C 201 148.260 190.404 238.290 1.00 59.31 C
ATOM 12078 CE2 TYR C 201 149.771 189.031 239.525 1.00 59.31 C
ATOM 12079 CZ TYR C 201 148.495 189.314 239.096 1.00 59.31 C
ATOM 12080 OH TYR C 201 147.450 188.500 239.470 1.00 59.31 O
ATOM 12081 N HIS C 202 152.658 193.657 235.516 1.00 56.89 N
ATOM 12082 CA HIS C 202 153.426 194.685 234.821 1.00 56.89 C
ATOM 12083 C HIS C 202 154.452 195.335 235.738 1.00 56.89 C
ATOM 12084 O HIS C 202 155.663 195.212 235.527 1.00 56.89 O

```
ATOM  12085  CB  HIS C 202     152.487 195.743 234.245  1.00 56.89           C
ATOM  12086  CG  HIS C 202     153.192 196.818 233.479  1.00 56.89           C
ATOM  12087  ND1 HIS C 202     153.709 197.943 234.084  1.00 56.89           N
ATOM  12088  CD2 HIS C 202     153.470 196.937 232.160  1.00 56.89           C
ATOM  12089  CE1 HIS C 202     154.273 198.711 233.170  1.00 56.89           C
ATOM  12090  NE2 HIS C 202     154.142 198.124 231.994  1.00 56.89           N
ATOM  12091  N   ARG C 203     153.984 196.031 236.767  1.00 70.20           N
ATOM  12092  CA  ARG C 203     154.845 196.818 237.639  1.00 70.20           C
ATOM  12093  C   ARG C 203     154.766 196.306 239.074  1.00 70.20           C
ATOM  12094  O   ARG C 203     154.934 197.063 240.031  1.00 70.20           O
ATOM  12095  CB  ARG C 203     154.462 198.294 237.546  1.00 70.20           C
ATOM  12096  CG  ARG C 203     155.393 199.270 238.234  1.00 70.20           C
ATOM  12097  CD  ARG C 203     154.920 200.693 238.008  1.00 70.20           C
ATOM  12098  NE  ARG C 203     155.091 201.111 236.620  1.00 70.20           N
ATOM  12099  CZ  ARG C 203     154.604 202.240 236.119  1.00 70.20           C
ATOM  12100  NH1 ARG C 203     153.912 203.063 236.893  1.00 70.20           N
ATOM  12101  NH2 ARG C 203     154.806 202.545 234.845  1.00 70.20           N
ATOM  12102  N   ASP C 204     154.500 195.011 239.231  1.00 75.78           N
ATOM  12103  CA  ASP C 204     154.255 194.394 240.532  1.00 75.78           C
ATOM  12104  C   ASP C 204     153.043 194.996 241.234  1.00 75.78           C
ATOM  12105  O   ASP C 204     152.914 194.894 242.458  1.00 75.78           O
ATOM  12106  CB  ASP C 204     155.492 194.483 241.432  1.00 75.78           C
ATOM  12107  CG  ASP C 204     156.624 193.597 240.950  1.00 75.78           C
ATOM  12108  OD1 ASP C 204     156.338 192.560 240.316  1.00 75.78           O
ATOM  12109  OD2 ASP C 204     157.799 193.934 241.208  1.00 75.78           O
ATOM  12110  N   SER C 205     152.149 195.621 240.472  1.00 77.27           N
ATOM  12111  CA  SER C 205     150.890 196.149 240.981  1.00 77.27           C
ATOM  12112  C   SER C 205     149.797 195.167 240.588  1.00 77.27           C
ATOM  12113  O   SER C 205     149.480 195.022 239.403  1.00 77.27           O
ATOM  12114  CB  SER C 205     150.612 197.538 240.417  1.00 77.27           C
ATOM  12115  OG  SER C 205     150.400 197.472 239.018  1.00 77.27           O
ATOM  12116  N   TYR C 206     149.216 194.500 241.581  1.00 77.76           N
ATOM  12117  CA  TYR C 206     148.312 193.390 241.318  1.00 77.76           C
ATOM  12118  C   TYR C 206     146.968 193.872 240.795  1.00 77.76           C
```

ATOM 12119 O TYR C 206 145.946 193.731 241.473 1.00 77.76 O
ATOM 12120 CB TYR C 206 148.114 192.562 242.588 1.00 77.76 C
ATOM 12121 CG TYR C 206 149.364 191.852 243.045 1.00 77.76 C
ATOM 12122 CD1 TYR C 206 149.730 190.631 242.500 1.00 77.76 C
ATOM 12123 CD2 TYR C 206 150.188 192.413 244.008 1.00 77.76 C
ATOM 12124 CE1 TYR C 206 150.875 189.982 242.910 1.00 77.76 C
ATOM 12125 CE2 TYR C 206 151.335 191.772 244.424 1.00 77.76 C
ATOM 12126 CZ TYR C 206 151.674 190.557 243.872 1.00 77.76 C
ATOM 12127 OH TYR C 206 152.817 189.915 244.284 1.00 77.76 O
ATOM 12128 N GLU C 207 146.952 194.438 239.592 1.00 72.66 N
ATOM 12129 CA GLU C 207 145.710 194.838 238.951 1.00 72.66 C
ATOM 12130 C GLU C 207 145.686 194.318 237.523 1.00 72.66 C
ATOM 12131 O GLU C 207 146.723 194.246 236.857 1.00 72.66 O
ATOM 12132 CB GLU C 207 145.524 196.354 238.967 1.00 72.66 C
ATOM 12133 CG GLU C 207 144.165 196.786 238.449 1.00 72.66 C
ATOM 12134 CD GLU C 207 143.938 198.273 238.575 1.00 72.66 C
ATOM 12135 OE1 GLU C 207 144.866 198.980 239.019 1.00 72.66 O
ATOM 12136 OE2 GLU C 207 142.827 198.733 238.242 1.00 72.66 O
ATOM 12137 N ASN C 208 144.493 193.951 237.067 1.00 67.14 N
ATOM 12138 CA ASN C 208 144.291 193.243 235.805 1.00 67.14 C
ATOM 12139 C ASN C 208 143.937 194.195 234.665 1.00 67.14 C
ATOM 12140 O ASN C 208 142.921 194.036 233.992 1.00 67.14 O
ATOM 12141 CB ASN C 208 143.213 192.190 236.013 1.00 67.14 C
ATOM 12142 CG ASN C 208 143.214 191.133 234.942 1.00 67.14 C
ATOM 12143 OD1 ASN C 208 143.881 191.271 233.916 1.00 67.14 O
ATOM 12144 ND2 ASN C 208 142.484 190.041 235.202 1.00 67.14 N
ATOM 12145 N LYS C 209 144.789 195.190 234.430 1.00 63.22 N
ATOM 12146 CA LYS C 209 144.482 196.284 233.519 1.00 63.22 C
ATOM 12147 C LYS C 209 144.611 195.856 232.058 1.00 63.22 C
ATOM 12148 O LYS C 209 144.990 194.727 231.737 1.00 63.22 O
ATOM 12149 CB LYS C 209 145.390 197.476 233.804 1.00 63.22 C
ATOM 12150 CG LYS C 209 145.172 198.097 235.164 1.00 63.22 C
ATOM 12151 CD LYS C 209 143.766 198.660 235.271 1.00 63.22 C
ATOM 12152 CE LYS C 209 143.590 199.877 234.379 1.00 63.22 C

ATOM 12153 NZ LYS C 209 142.238 200.480 234.536 1.00 63.22 N
ATOM 12154 N THR C 210 144.295 196.791 231.160 1.00 55.64 N
ATOM 12155 CA THR C 210 144.399 196.594 229.716 1.00 55.64 C
ATOM 12156 C THR C 210 145.187 197.759 229.133 1.00 55.64 C
ATOM 12157 O THR C 210 144.685 198.886 229.079 1.00 55.64 O
ATOM 12158 CB THR C 210 143.021 196.502 229.064 1.00 55.64 C
ATOM 12159 OG1 THR C 210 142.320 197.736 229.257 1.00 55.64 O
ATOM 12160 CG2 THR C 210 142.215 195.366 229.674 1.00 55.64 C
ATOM 12161 N MET C 211 146.411 197.490 228.689 1.00 52.47 N
ATOM 12162 CA MET C 211 147.288 198.532 228.184 1.00 52.47 C
ATOM 12163 C MET C 211 146.868 198.972 226.782 1.00 52.47 C
ATOM 12164 O MET C 211 145.902 198.470 226.203 1.00 52.47 O
ATOM 12165 CB MET C 211 148.735 198.047 228.173 1.00 52.47 C
ATOM 12166 CG MET C 211 149.322 197.792 229.549 1.00 52.47 C
ATOM 12167 SD MET C 211 149.419 199.285 230.552 1.00 52.47 S
ATOM 12168 CE MET C 211 148.009 199.060 231.630 1.00 52.47 C
ATOM 12169 N GLN C 212 147.618 199.928 226.239 1.00 46.50 N
ATOM 12170 CA GLN C 212 147.379 200.485 224.916 1.00 46.50 C
ATOM 12171 C GLN C 212 148.652 200.396 224.084 1.00 46.50 C
ATOM 12172 O GLN C 212 149.762 200.398 224.622 1.00 46.50 O
ATOM 12173 CB GLN C 212 146.919 201.944 225.012 1.00 46.50 C
ATOM 12174 CG GLN C 212 146.601 202.601 223.684 1.00 46.50 C
ATOM 12175 CD GLN C 212 145.373 202.020 223.032 1.00 46.50 C
ATOM 12176 OE1 GLN C 212 144.374 201.748 223.696 1.00 46.50 O
ATOM 12177 NE2 GLN C 212 145.435 201.829 221.722 1.00 46.50 N
ATOM 12178 N LEU C 213 148.488 200.317 222.767 1.00 42.72 N
ATOM 12179 CA LEU C 213 149.630 200.268 221.867 1.00 42.72 C
ATOM 12180 C LEU C 213 149.989 201.668 221.377 1.00 42.72 C
ATOM 12181 O LEU C 213 149.198 202.609 221.461 1.00 42.72 O
ATOM 12182 CB LEU C 213 149.348 199.346 220.683 1.00 42.72 C
ATOM 12183 CG LEU C 213 149.514 197.846 220.919 1.00 42.72 C
ATOM 12184 CD1 LEU C 213 148.396 197.312 221.786 1.00 42.72 C
ATOM 12185 CD2 LEU C 213 149.562 197.107 219.599 1.00 42.72 C
ATOM 12186 N MET C 214 151.203 201.797 220.856 1.00 42.07 N

ATOM 12187 CA MET C 214 151.725 203.083 220.419 1.00 42.07 C
ATOM 12188 C MET C 214 152.710 202.842 219.291 1.00 42.07 C
ATOM 12189 O MET C 214 153.099 201.698 219.025 1.00 42.07 O
ATOM 12190 CB MET C 214 152.408 203.830 221.570 1.00 42.07 C
ATOM 12191 CG MET C 214 151.478 204.260 222.688 1.00 42.07 C
ATOM 12192 SD MET C 214 152.363 205.086 224.024 1.00 42.07 S
ATOM 12193 CE MET C 214 151.035 205.349 225.196 1.00 42.07 C
ATOM 12194 N PRO C 215 153.134 203.897 218.604 1.00 38.39 N
ATOM 12195 CA PRO C 215 154.182 203.747 217.593 1.00 38.39 C
ATOM 12196 C PRO C 215 155.558 203.677 218.230 1.00 38.39 C
ATOM 12197 O PRO C 215 155.761 204.066 219.382 1.00 38.39 O
ATOM 12198 CB PRO C 215 154.034 205.012 216.743 1.00 38.39 C
ATOM 12199 CG PRO C 215 153.450 206.009 217.674 1.00 38.39 C
ATOM 12200 CD PRO C 215 152.540 205.243 218.590 1.00 38.39 C
ATOM 12201 N ASP C 216 156.513 203.176 217.458 1.00 41.72 N
ATOM 12202 CA ASP C 216 157.847 202.917 217.968 1.00 41.72 C
ATOM 12203 C ASP C 216 158.879 203.741 217.212 1.00 41.72 C
ATOM 12204 O ASP C 216 158.672 204.163 216.071 1.00 41.72 O
ATOM 12205 CB ASP C 216 158.178 201.424 217.877 1.00 41.72 C
ATOM 12206 CG ASP C 216 159.434 201.060 218.636 1.00 41.72 C
ATOM 12207 OD1 ASP C 216 159.386 201.036 219.883 1.00 41.72 O
ATOM 12208 OD2 ASP C 216 160.469 200.805 217.989 1.00 41.72 O
ATOM 12209 N ASP C 217 160.011 203.957 217.876 1.00 46.88 N
ATOM 12210 CA ASP C 217 161.086 204.797 217.370 1.00 46.88 C
ATOM 12211 C ASP C 217 161.758 204.235 216.130 1.00 46.88 C
ATOM 12212 O ASP C 217 162.503 204.966 215.470 1.00 46.88 O
ATOM 12213 CB ASP C 217 162.140 204.982 218.459 1.00 46.88 C
ATOM 12214 CG ASP C 217 161.593 205.678 219.681 1.00 46.88 C
ATOM 12215 OD1 ASP C 217 160.685 206.522 219.533 1.00 46.88 O
ATOM 12216 OD2 ASP C 217 162.056 205.355 220.794 1.00 46.88 O
ATOM 12217 N TYR C 218 161.535 202.967 215.799 1.00 41.61 N
ATOM 12218 CA TYR C 218 162.277 202.300 214.735 1.00 41.61 C
ATOM 12219 C TYR C 218 161.296 201.997 213.612 1.00 41.61 C
ATOM 12220 O TYR C 218 160.784 200.887 213.479 1.00 41.61 O

ATOM 12221 CB TYR C 218 162.946 201.036 215.273 1.00 41.61 C
ATOM 12222 CG TYR C 218 163.969 201.308 216.350 1.00 41.61 C
ATOM 12223 CD1 TYR C 218 164.551 202.558 216.479 1.00 41.61 C
ATOM 12224 CD2 TYR C 218 164.323 200.330 217.263 1.00 41.61 C
ATOM 12225 CE1 TYR C 218 165.467 202.823 217.468 1.00 41.61 C
ATOM 12226 CE2 TYR C 218 165.253 200.579 218.252 1.00 41.61 C
ATOM 12227 CZ TYR C 218 165.813 201.834 218.356 1.00 41.61 C
ATOM 12228 OH TYR C 218 166.728 202.101 219.345 1.00 41.61 O
ATOM 12229 N SER C 219 161.046 203.004 212.786 1.00 36.08 N
ATOM 12230 CA SER C 219 160.146 202.863 211.655 1.00 36.08 C
ATOM 12231 C SER C 219 160.974 202.564 210.411 1.00 36.08 C
ATOM 12232 O SER C 219 162.187 202.350 210.484 1.00 36.08 O
ATOM 12233 CB SER C 219 159.290 204.115 211.506 1.00 36.08 C
ATOM 12234 OG SER C 219 158.472 204.298 212.647 1.00 36.08 O
ATOM 12235 N ASN C 220 160.331 202.554 209.250 1.00 33.01 N
ATOM 12236 CA ASN C 220 161.019 202.178 208.021 1.00 33.01 C
ATOM 12237 C ASN C 220 160.041 202.377 206.871 1.00 33.01 C
ATOM 12238 O ASN C 220 158.872 202.715 207.080 1.00 33.01 O
ATOM 12239 CB ASN C 220 161.499 200.731 208.081 1.00 33.01 C
ATOM 12240 CG ASN C 220 162.774 200.515 207.311 1.00 33.01 C
ATOM 12241 OD1 ASN C 220 163.388 199.453 207.391 1.00 33.01 O
ATOM 12242 ND2 ASN C 220 163.213 201.543 206.602 1.00 33.01 N
ATOM 12243 N THR C 221 160.536 202.174 205.646 1.00 34.74 N
ATOM 12244 CA THR C 221 159.638 202.157 204.495 1.00 34.74 C
ATOM 12245 C THR C 221 158.634 201.020 204.615 1.00 34.74 C
ATOM 12246 O THR C 221 157.447 201.197 204.325 1.00 34.74 O
ATOM 12247 CB THR C 221 160.434 202.065 203.190 1.00 34.74 C
ATOM 12248 OG1 THR C 221 159.538 202.114 202.073 1.00 34.74 O
ATOM 12249 CG2 THR C 221 161.269 200.792 203.124 1.00 34.74 C
ATOM 12250 N HIS C 222 159.093 199.834 205.032 1.00 35.77 N
ATOM 12251 CA HIS C 222 158.162 198.808 205.487 1.00 35.77 C
ATOM 12252 C HIS C 222 158.878 197.950 206.535 1.00 35.77 C
ATOM 12253 O HIS C 222 159.441 196.888 206.260 1.00 35.77 O
ATOM 12254 CB HIS C 222 157.652 197.984 204.305 1.00 35.77 C

ATOM 12255 CG HIS C 222 158.744 197.410 203.454 1.00 35.77 C
ATOM 12256 ND1 HIS C 222 159.321 196.186 203.712 1.00 35.77 N
ATOM 12257 CD2 HIS C 222 159.376 197.901 202.361 1.00 35.77 C
ATOM 12258 CE1 HIS C 222 160.250 195.940 202.806 1.00 35.77 C
ATOM 12259 NE2 HIS C 222 160.306 196.966 201.977 1.00 35.77 N
ATOM 12260 N SER C 223 158.869 198.435 207.780 1.00 33.96 N
ATOM 12261 CA SER C 223 159.254 197.574 208.903 1.00 33.96 C
ATOM 12262 C SER C 223 158.583 197.977 210.210 1.00 33.96 C
ATOM 12263 O SER C 223 159.144 197.668 211.266 1.00 33.96 O
ATOM 12264 CB SER C 223 160.776 197.571 209.066 1.00 33.96 C
ATOM 12265 OG SER C 223 161.170 196.762 210.159 1.00 33.96 O
ATOM 12266 N THR C 224 157.440 198.661 210.192 1.00 32.87 N
ATOM 12267 CA THR C 224 156.947 199.352 211.375 1.00 32.87 C
ATOM 12268 C THR C 224 156.663 198.381 212.516 1.00 32.87 C
ATOM 12269 O THR C 224 156.251 197.239 212.312 1.00 32.87 O
ATOM 12270 CB THR C 224 155.677 200.131 211.048 1.00 32.87 C
ATOM 12271 OG1 THR C 224 155.303 200.928 212.178 1.00 32.87 O
ATOM 12272 CG2 THR C 224 154.549 199.175 210.725 1.00 32.87 C
ATOM 12273 N ARG C 225 156.878 198.864 213.737 1.00 34.63 N
ATOM 12274 CA ARG C 225 156.669 198.060 214.931 1.00 34.63 C
ATOM 12275 C ARG C 225 155.944 198.897 215.969 1.00 34.63 C
ATOM 12276 O ARG C 225 156.184 200.100 216.084 1.00 34.63 O
ATOM 12277 CB ARG C 225 157.990 197.538 215.505 1.00 34.63 C
ATOM 12278 CG ARG C 225 157.821 196.668 216.743 1.00 34.63 C
ATOM 12279 CD ARG C 225 159.145 196.064 217.193 1.00 34.63 C
ATOM 12280 NE ARG C 225 160.099 197.064 217.656 1.00 34.63 N
ATOM 12281 CZ ARG C 225 160.162 197.509 218.905 1.00 34.63 C
ATOM 12282 NH1 ARG C 225 161.059 198.423 219.241 1.00 34.63 N
ATOM 12283 NH2 ARG C 225 159.335 197.028 219.821 1.00 34.63 N
ATOM 12284 N TYR C 226 155.055 198.254 216.712 1.00 36.10 N
ATOM 12285 CA TYR C 226 154.302 198.893 217.778 1.00 36.10 C
ATOM 12286 C TYR C 226 154.730 198.310 219.117 1.00 36.10 C
ATOM 12287 O TYR C 226 155.370 197.260 219.187 1.00 36.10 O
ATOM 12288 CB TYR C 226 152.800 198.708 217.552 1.00 36.10 C

ATOM 12289 CG TYR C 226 152.306 199.375 216.292 1.00 36.10 C
ATOM 12290 CD1 TYR C 226 151.984 200.722 216.277 1.00 36.10 C
ATOM 12291 CD2 TYR C 226 152.183 198.662 215.111 1.00 36.10 C
ATOM 12292 CE1 TYR C 226 151.537 201.335 215.125 1.00 36.10 C
ATOM 12293 CE2 TYR C 226 151.739 199.265 213.956 1.00 36.10 C
ATOM 12294 CZ TYR C 226 151.419 200.601 213.968 1.00 36.10 C
ATOM 12295 OH TYR C 226 150.977 201.204 212.817 1.00 36.10 O
ATOM 12296 N VAL C 227 154.366 199.000 220.194 1.00 36.92 N
ATOM 12297 CA VAL C 227 154.807 198.589 221.521 1.00 36.92 C
ATOM 12298 C VAL C 227 153.947 199.261 222.582 1.00 36.92 C
ATOM 12299 O VAL C 227 153.401 200.345 222.357 1.00 36.92 O
ATOM 12300 CB VAL C 227 156.297 198.916 221.725 1.00 36.92 C
ATOM 12301 CG1 VAL C 227 156.510 200.413 221.721 1.00 36.92 C
ATOM 12302 CG2 VAL C 227 156.808 198.305 223.013 1.00 36.92 C
ATOM 12303 N THR C 228 153.816 198.619 223.742 1.00 40.08 N
ATOM 12304 CA THR C 228 153.042 199.172 224.847 1.00 40.08 C
ATOM 12305 C THR C 228 153.916 199.971 225.808 1.00 40.08 C
ATOM 12306 O THR C 228 153.680 201.163 226.028 1.00 40.08 O
ATOM 12307 CB THR C 228 152.325 198.052 225.604 1.00 40.08 C
ATOM 12308 OG1 THR C 228 151.359 197.432 224.749 1.00 40.08 O
ATOM 12309 CG2 THR C 228 151.641 198.604 226.835 1.00 40.08 C
ATOM 12310 N VAL C 229 154.927 199.328 226.386 1.00 43.65 N
ATOM 12311 CA VAL C 229 155.791 199.962 227.375 1.00 43.65 C
ATOM 12312 C VAL C 229 156.925 200.633 226.608 1.00 43.65 C
ATOM 12313 O VAL C 229 157.831 199.969 226.105 1.00 43.65 O
ATOM 12314 CB VAL C 229 156.315 198.953 228.395 1.00 43.65 C
ATOM 12315 CG1 VAL C 229 157.178 199.653 229.427 1.00 43.65 C
ATOM 12316 CG2 VAL C 229 155.161 198.221 229.045 1.00 43.65 C
ATOM 12317 N LYS C 230 156.874 201.961 226.520 1.00 59.26 N
ATOM 12318 CA LYS C 230 157.802 202.676 225.652 1.00 59.26 C
ATOM 12319 C LYS C 230 159.220 202.655 226.208 1.00 59.26 C
ATOM 12320 O LYS C 230 160.128 202.078 225.600 1.00 59.26 O
ATOM 12321 CB LYS C 230 157.321 204.113 225.446 1.00 59.26 C
ATOM 12322 CG LYS C 230 158.195 204.934 224.511 1.00 59.26 C

ATOM 12323 CD LYS C 230 158.221 204.346 223.112 1.00 59.26 C
ATOM 12324 CE LYS C 230 156.849 204.406 222.467 1.00 59.26 C
ATOM 12325 NZ LYS C 230 156.431 205.806 222.193 1.00 59.26 N
ATOM 12326 N ASP C 231 159.436 203.281 227.366 1.00 77.86 N
ATOM 12327 CA ASP C 231 160.806 203.497 227.816 1.00 77.86 C
ATOM 12328 C ASP C 231 161.324 202.460 228.804 1.00 77.86 C
ATOM 12329 O ASP C 231 162.225 201.683 228.471 1.00 77.86 O
ATOM 12330 CB ASP C 231 160.926 204.886 228.447 1.00 77.86 C
ATOM 12331 CG ASP C 231 162.348 205.221 228.852 1.00 77.86 C
ATOM 12332 OD1 ASP C 231 163.170 205.513 227.958 1.00 77.86 O
ATOM 12333 OD2 ASP C 231 162.645 205.191 230.065 1.00 77.86 O
ATOM 12334 N GLN C 232 160.752 202.418 230.008 1.00 82.50 N
ATOM 12335 CA GLN C 232 161.391 201.684 231.094 1.00 82.50 C
ATOM 12336 C GLN C 232 160.586 201.819 232.383 1.00 82.50 C
ATOM 12337 O GLN C 232 159.606 202.570 232.431 1.00 82.50 O
ATOM 12338 CB GLN C 232 162.821 202.208 231.282 1.00 82.50 C
ATOM 12339 CG GLN C 232 163.735 201.405 232.193 1.00 82.50 C
ATOM 12340 CD GLN C 232 165.121 202.014 232.290 1.00 82.50 C
ATOM 12341 OE1 GLN C 232 165.388 203.071 231.716 1.00 82.50 O
ATOM 12342 NE2 GLN C 232 166.010 201.352 233.017 1.00 82.50 N
ATOM 12343 N TRP C 233 160.982 201.095 233.429 1.00 83.97 N
ATOM 12344 CA TRP C 233 160.531 201.394 234.786 1.00 83.97 C
ATOM 12345 C TRP C 233 161.669 201.053 235.738 1.00 83.97 C
ATOM 12346 O TRP C 233 161.952 199.874 235.970 1.00 83.97 O
ATOM 12347 CB TRP C 233 159.264 200.626 235.146 1.00 83.97 C
ATOM 12348 CG TRP C 233 158.768 200.992 236.504 1.00 83.97 C
ATOM 12349 CD1 TRP C 233 158.853 200.243 237.641 1.00 83.97 C
ATOM 12350 CD2 TRP C 233 158.150 202.227 236.880 1.00 83.97 C
ATOM 12351 NE1 TRP C 233 158.305 200.928 238.699 1.00 83.97 N
ATOM 12352 CE2 TRP C 233 157.871 202.150 238.258 1.00 83.97 C
ATOM 12353 CE3 TRP C 233 157.799 203.387 236.183 1.00 83.97 C
ATOM 12354 CZ2 TRP C 233 157.250 203.187 238.952 1.00 83.97 C
ATOM 12355 CZ3 TRP C 233 157.188 204.415 236.873 1.00 83.97 C
ATOM 12356 CH2 TRP C 233 156.920 204.309 238.243 1.00 83.97 C

ATOM 12357 N HIS C 234 162.320 202.081 236.281 1.00 87.87 N
ATOM 12358 CA HIS C 234 163.496 201.910 237.129 1.00 87.87 C
ATOM 12359 C HIS C 234 163.448 202.857 238.323 1.00 87.87 C
ATOM 12360 O HIS C 234 164.453 203.478 238.686 1.00 87.87 O
ATOM 12361 CB HIS C 234 164.778 202.114 236.322 1.00 87.87 C
ATOM 12362 CG HIS C 234 164.918 203.489 235.748 1.00 87.87 C
ATOM 12363 ND1 HIS C 234 164.227 203.902 234.629 1.00 87.87 N
ATOM 12364 CD2 HIS C 234 165.676 204.544 236.132 1.00 87.87 C
ATOM 12365 CE1 HIS C 234 164.547 205.153 234.353 1.00 87.87 C
ATOM 12366 NE2 HIS C 234 165.425 205.566 235.249 1.00 87.87 N
ATOM 12367 N SER C 235 162.285 202.973 238.960 1.00 88.80 N
ATOM 12368 CA SER C 235 162.149 203.877 240.092 1.00 88.80 C
ATOM 12369 C SER C 235 163.041 203.435 241.251 1.00 88.80 C
ATOM 12370 O SER C 235 163.450 202.276 241.353 1.00 88.80 O
ATOM 12371 CB SER C 235 160.693 203.955 240.545 1.00 88.80 C
ATOM 12372 OG SER C 235 159.889 204.556 239.546 1.00 88.80 O
ATOM 12373 N ARG C 236 163.340 204.389 242.135 1.00 89.87 N
ATOM 12374 CA ARG C 236 164.305 204.146 243.203 1.00 89.87 C
ATOM 12375 C ARG C 236 163.774 203.126 244.202 1.00 89.87 C
ATOM 12376 O ARG C 236 164.373 202.063 244.404 1.00 89.87 O
ATOM 12377 CB ARG C 236 164.649 205.463 243.904 1.00 89.87 C
ATOM 12378 CG ARG C 236 165.843 205.393 244.856 1.00 89.87 C
ATOM 12379 CD ARG C 236 165.457 204.939 246.256 1.00 89.87 C
ATOM 12380 NE ARG C 236 164.407 205.764 246.844 1.00 89.87 N
ATOM 12381 CZ ARG C 236 164.621 206.930 247.444 1.00 89.87 C
ATOM 12382 NH1 ARG C 236 165.851 207.415 247.536 1.00 89.87 N
ATOM 12383 NH2 ARG C 236 163.603 207.612 247.952 1.00 89.87 N
ATOM 12384 N GLY C 237 162.654 203.434 244.841 1.00 90.14 N
ATOM 12385 CA GLY C 237 162.103 202.582 245.871 1.00 90.14 C
ATOM 12386 C GLY C 237 162.511 203.021 247.263 1.00 90.14 C
ATOM 12387 O GLY C 237 162.885 204.169 247.510 1.00 90.14 O
ATOM 12388 N SER C 238 162.426 202.076 248.191 1.00 82.54 N
ATOM 12389 CA SER C 238 162.800 202.323 249.574 1.00 82.54 C
ATOM 12390 C SER C 238 164.269 201.989 249.798 1.00 82.54 C

ATOM 12391 O SER C 238 164.850 201.151 249.104 1.00 82.54 O
ATOM 12392 CB SER C 238 161.931 201.502 250.525 1.00 82.54 C
ATOM 12393 OG SER C 238 162.180 200.117 250.369 1.00 82.54 O
ATOM 12394 N THR C 239 164.867 202.659 250.779 1.00 77.47 N
ATOM 12395 CA THR C 239 166.269 202.442 251.103 1.00 77.47 C
ATOM 12396 C THR C 239 166.436 201.190 251.952 1.00 77.47 C
ATOM 12397 O THR C 239 165.647 200.930 252.865 1.00 77.47 O
ATOM 12398 CB THR C 239 166.842 203.649 251.843 1.00 77.47 C
ATOM 12399 OG1 THR C 239 166.112 203.856 253.058 1.00 77.47 O
ATOM 12400 CG2 THR C 239 166.747 204.895 250.982 1.00 77.47 C
ATOM 12401 N TRP C 240 167.472 200.410 251.639 1.00 72.24 N
ATOM 12402 CA TRP C 240 167.811 199.206 252.399 1.00 72.24 C
ATOM 12403 C TRP C 240 166.714 198.149 252.269 1.00 72.24 C
ATOM 12404 O TRP C 240 166.283 197.549 253.254 1.00 72.24 O
ATOM 12405 CB TRP C 240 168.072 199.538 253.870 1.00 72.24 C
ATOM 12406 CG TRP C 240 169.277 200.387 254.109 1.00 72.24 C
ATOM 12407 CD1 TRP C 240 170.216 200.761 253.195 1.00 72.24 C
ATOM 12408 CD2 TRP C 240 169.672 200.972 255.353 1.00 72.24 C
ATOM 12409 NE1 TRP C 240 171.173 201.543 253.793 1.00 72.24 N
ATOM 12410 CE2 TRP C 240 170.861 201.687 255.119 1.00 72.24 C
ATOM 12411 CE3 TRP C 240 169.136 200.959 256.643 1.00 72.24 C
ATOM 12412 CZ2 TRP C 240 171.522 202.382 256.125 1.00 72.24 C
ATOM 12413 CZ3 TRP C 240 169.793 201.649 257.639 1.00 72.24 C
ATOM 12414 CH2 TRP C 240 170.973 202.350 257.376 1.00 72.24 C
ATOM 12415 N LEU C 241 166.262 197.924 251.038 1.00 73.99 N
ATOM 12416 CA LEU C 241 165.193 196.964 250.787 1.00 73.99 C
ATOM 12417 C LEU C 241 165.444 196.300 249.443 1.00 73.99 C
ATOM 12418 O LEU C 241 165.600 196.986 248.429 1.00 73.99 O
ATOM 12419 CB LEU C 241 163.824 197.646 250.815 1.00 73.99 C
ATOM 12420 CG LEU C 241 162.589 196.744 250.802 1.00 73.99 C
ATOM 12421 CD1 LEU C 241 161.444 197.416 251.537 1.00 73.99 C
ATOM 12422 CD2 LEU C 241 162.176 196.403 249.379 1.00 73.99 C
ATOM 12423 N TYR C 242 165.480 194.971 249.443 1.00 71.90 N
ATOM 12424 CA TYR C 242 165.806 194.191 248.254 1.00 71.90 C

```
ATOM  12425  C   TYR C 242    164.523 193.855 247.505  1.00 71.90           C
ATOM  12426  O   TYR C 242    163.745 193.004 247.948  1.00 71.90           O
ATOM  12427  CB  TYR C 242    166.546 192.923 248.659  1.00 71.90           C
ATOM  12428  CG  TYR C 242    166.971 192.056 247.504  1.00 71.90           C
ATOM  12429  CD1 TYR C 242    168.114 192.347 246.778  1.00 71.90           C
ATOM  12430  CD2 TYR C 242    166.224 190.949 247.136  1.00 71.90           C
ATOM  12431  CE1 TYR C 242    168.507 191.553 245.726  1.00 71.90           C
ATOM  12432  CE2 TYR C 242    166.607 190.153 246.082  1.00 71.90           C
ATOM  12433  CZ  TYR C 242    167.749 190.459 245.382  1.00 71.90           C
ATOM  12434  OH  TYR C 242    168.136 189.665 244.331  1.00 71.90           O
ATOM  12435  N   ARG C 243    164.301 194.507 246.366  1.00 72.00           N
ATOM  12436  CA  ARG C 243    163.085 194.312 245.589  1.00 72.00           C
ATOM  12437  C   ARG C 243    163.428 194.011 244.138  1.00 72.00           C
ATOM  12438  O   ARG C 243    164.333 194.622 243.564  1.00 72.00           O
ATOM  12439  CB  ARG C 243    162.182 195.545 245.658  1.00 72.00           C
ATOM  12440  CG  ARG C 243    162.763 196.767 244.978  1.00 72.00           C
ATOM  12441  CD  ARG C 243    161.824 197.953 245.085  1.00 72.00           C
ATOM  12442  NE  ARG C 243    162.394 199.149 244.472  1.00 72.00           N
ATOM  12443  CZ  ARG C 243    162.248 199.468 243.191  1.00 72.00           C
ATOM  12444  NH1 ARG C 243    161.546 198.684 242.390  1.00 72.00           N
ATOM  12445  NH2 ARG C 243    162.799 200.572 242.710  1.00 72.00           N
ATOM  12446  N   GLU C 244    162.695 193.066 243.553  1.00 68.18           N
ATOM  12447  CA  GLU C 244    162.810 192.722 242.144  1.00 68.18           C
ATOM  12448  C   GLU C 244    161.499 193.049 241.442  1.00 68.18           C
ATOM  12449  O   GLU C 244    160.417 192.803 241.984  1.00 68.18           O
ATOM  12450  CB  GLU C 244    163.152 191.242 241.957  1.00 68.18           C
ATOM  12451  CG  GLU C 244    162.029 190.297 242.325  1.00 68.18           C
ATOM  12452  CD  GLU C 244    161.990 190.002 243.808  1.00 68.18           C
ATOM  12453  OE1 GLU C 244    162.625 190.752 244.577  1.00 68.18           O
ATOM  12454  OE2 GLU C 244    161.326 189.022 244.206  1.00 68.18           O
ATOM  12455  N   THR C 245    161.597 193.599 240.235  1.00 58.24           N
ATOM  12456  CA  THR C 245    160.436 194.109 239.523  1.00 58.24           C
ATOM  12457  C   THR C 245    160.319 193.466 238.151  1.00 58.24           C
ATOM  12458  O   THR C 245    161.290 192.936 237.607  1.00 58.24           O
```

ATOM 12459 CB THR C 245 160.503 195.629 239.366 1.00 58.24 C
ATOM 12460 OG1 THR C 245 161.689 195.985 238.645 1.00 58.24 O
ATOM 12461 CG2 THR C 245 160.519 196.294 240.722 1.00 58.24 C
ATOM 12462 N CYS C 246 159.111 193.520 237.603 1.00 54.23 N
ATOM 12463 CA CYS C 246 158.818 193.036 236.264 1.00 54.23 C
ATOM 12464 C CYS C 246 158.611 194.211 235.318 1.00 54.23 C
ATOM 12465 O CYS C 246 158.305 195.330 235.734 1.00 54.23 O
ATOM 12466 CB CYS C 246 157.576 192.143 236.272 1.00 54.23 C
ATOM 12467 SG CYS C 246 157.761 190.620 237.222 1.00 54.23 S
ATOM 12468 N ASN C 247 158.806 193.948 234.032 1.00 46.37 N
ATOM 12469 CA ASN C 247 158.680 194.971 233.001 1.00 46.37 C
ATOM 12470 C ASN C 247 157.923 194.415 231.801 1.00 46.37 C
ATOM 12471 O ASN C 247 158.403 194.463 230.668 1.00 46.37 O
ATOM 12472 CB ASN C 247 160.049 195.504 232.589 1.00 46.37 C
ATOM 12473 CG ASN C 247 159.953 196.759 231.747 1.00 46.37 C
ATOM 12474 OD1 ASN C 247 158.861 197.248 231.466 1.00 46.37 O
ATOM 12475 ND2 ASN C 247 161.099 197.285 231.335 1.00 46.37 N
ATOM 12476 N LEU C 248 156.752 193.821 232.060 1.00 45.73 N
ATOM 12477 CA LEU C 248 155.930 193.218 231.014 1.00 45.73 C
ATOM 12478 C LEU C 248 155.733 194.168 229.841 1.00 45.73 C
ATOM 12479 O LEU C 248 155.587 195.380 230.010 1.00 45.73 O
ATOM 12480 CB LEU C 248 154.565 192.811 231.571 1.00 45.73 C
ATOM 12481 CG LEU C 248 154.453 191.426 232.199 1.00 45.73 C
ATOM 12482 CD1 LEU C 248 154.714 190.372 231.145 1.00 45.73 C
ATOM 12483 CD2 LEU C 248 155.412 191.272 233.363 1.00 45.73 C
ATOM 12484 N ASN C 249 155.734 193.599 228.640 1.00 39.79 N
ATOM 12485 CA ASN C 249 155.732 194.388 227.418 1.00 39.79 C
ATOM 12486 C ASN C 249 155.330 193.519 226.236 1.00 39.79 C
ATOM 12487 O ASN C 249 155.824 192.398 226.087 1.00 39.79 O
ATOM 12488 CB ASN C 249 157.110 195.007 227.186 1.00 39.79 C
ATOM 12489 CG ASN C 249 157.129 195.976 226.024 1.00 39.79 C
ATOM 12490 OD1 ASN C 249 156.118 196.189 225.359 1.00 39.79 O
ATOM 12491 ND2 ASN C 249 158.289 196.568 225.770 1.00 39.79 N
ATOM 12492 N CYS C 250 154.438 194.029 225.394 1.00 37.15 N

ATOM 12493 CA CYS C 250 153.955 193.315 224.222 1.00 37.15 C
ATOM 12494 C CYS C 250 154.089 194.202 222.996 1.00 37.15 C
ATOM 12495 O CYS C 250 153.924 195.422 223.081 1.00 37.15 O
ATOM 12496 CB CYS C 250 152.504 192.882 224.406 1.00 37.15 C
ATOM 12497 SG CYS C 250 151.385 194.256 224.647 1.00 37.15 S
ATOM 12498 N MET C 251 154.384 193.585 221.855 1.00 33.64 N
ATOM 12499 CA MET C 251 154.683 194.330 220.643 1.00 33.64 C
ATOM 12500 C MET C 251 154.205 193.544 219.433 1.00 33.64 C
ATOM 12501 O MET C 251 154.316 192.317 219.400 1.00 33.64 O
ATOM 12502 CB MET C 251 156.182 194.622 220.546 1.00 33.64 C
ATOM 12503 CG MET C 251 157.051 193.387 220.475 1.00 33.64 C
ATOM 12504 SD MET C 251 158.802 193.798 220.550 1.00 33.64 S
ATOM 12505 CE MET C 251 158.954 194.260 222.272 1.00 33.64 C
ATOM 12506 N VAL C 252 153.680 194.260 218.440 1.00 27.07 N
ATOM 12507 CA VAL C 252 153.078 193.654 217.252 1.00 27.07 C
ATOM 12508 C VAL C 252 153.773 194.267 216.041 1.00 27.07 C
ATOM 12509 O VAL C 252 153.368 195.320 215.540 1.00 27.07 O
ATOM 12510 CB VAL C 252 151.565 193.875 217.184 1.00 27.07 C
ATOM 12511 CG1 VAL C 252 151.015 193.339 215.881 1.00 27.07 C
ATOM 12512 CG2 VAL C 252 150.881 193.225 218.367 1.00 27.07 C
ATOM 12513 N THR C 253 154.818 193.607 215.553 1.00 26.69 N
ATOM 12514 CA THR C 253 155.537 194.108 214.393 1.00 26.69 C
ATOM 12515 C THR C 253 154.781 193.789 213.107 1.00 26.69 C
ATOM 12516 O THR C 253 153.897 192.931 213.070 1.00 26.69 O
ATOM 12517 CB THR C 253 156.940 193.510 214.331 1.00 26.69 C
ATOM 12518 OG1 THR C 253 157.663 194.102 213.246 1.00 26.69 O
ATOM 12519 CG2 THR C 253 156.865 192.016 214.119 1.00 26.69 C
ATOM 12520 N ILE C 254 155.142 194.500 212.038 1.00 26.38 N
ATOM 12521 CA ILE C 254 154.559 194.265 210.721 1.00 26.38 C
ATOM 12522 C ILE C 254 155.646 194.333 209.658 1.00 26.38 C
ATOM 12523 O ILE C 254 156.018 195.419 209.203 1.00 26.38 O
ATOM 12524 CB ILE C 254 153.443 195.278 210.417 1.00 26.38 C
ATOM 12525 CG1 ILE C 254 152.272 195.086 211.377 1.00 26.38 C
ATOM 12526 CG2 ILE C 254 152.988 195.148 208.979 1.00 26.38 C

ATOM 12527 CD1 ILE C 254 151.251 196.186 211.303 1.00 26.38 C
ATOM 12528 N THR C 255 156.149 193.178 209.244 1.00 30.43 N
ATOM 12529 CA THR C 255 157.200 193.086 208.247 1.00 30.43 C
ATOM 12530 C THR C 255 156.600 192.766 206.881 1.00 30.43 C
ATOM 12531 O THR C 255 155.381 192.782 206.693 1.00 30.43 O
ATOM 12532 CB THR C 255 158.225 192.039 208.670 1.00 30.43 C
ATOM 12533 OG1 THR C 255 157.603 190.751 208.700 1.00 30.43 O
ATOM 12534 CG2 THR C 255 158.744 192.357 210.051 1.00 30.43 C
ATOM 12535 N THR C 256 157.465 192.470 205.910 1.00 33.84 N
ATOM 12536 CA THR C 256 157.035 192.050 204.575 1.00 33.84 C
ATOM 12537 C THR C 256 157.900 190.862 204.167 1.00 33.84 C
ATOM 12538 O THR C 256 159.100 191.018 203.932 1.00 33.84 O
ATOM 12539 CB THR C 256 157.156 193.180 203.563 1.00 33.84 C
ATOM 12540 OG1 THR C 256 158.534 193.541 203.424 1.00 33.84 O
ATOM 12541 CG2 THR C 256 156.372 194.392 204.024 1.00 33.84 C
ATOM 12542 N ALA C 257 157.291 189.682 204.079 1.00 36.86 N
ATOM 12543 CA ALA C 257 158.031 188.487 203.710 1.00 36.86 C
ATOM 12544 C ALA C 257 158.282 188.458 202.206 1.00 36.86 C
ATOM 12545 O ALA C 257 157.714 189.236 201.437 1.00 36.86 O
ATOM 12546 CB ALA C 257 157.277 187.232 204.141 1.00 36.86 C
ATOM 12547 N ARG C 258 159.150 187.537 201.785 1.00 44.92 N
ATOM 12548 CA ARG C 258 159.486 187.412 200.368 1.00 44.92 C
ATOM 12549 C ARG C 258 159.962 185.983 200.115 1.00 44.92 C
ATOM 12550 O ARG C 258 161.103 185.646 200.438 1.00 44.92 O
ATOM 12551 CB ARG C 258 160.540 188.429 199.969 1.00 44.92 C
ATOM 12552 CG ARG C 258 160.885 188.417 198.496 1.00 44.92 C
ATOM 12553 CD ARG C 258 161.831 189.550 198.162 1.00 44.92 C
ATOM 12554 NE ARG C 258 162.206 189.556 196.754 1.00 44.92 N
ATOM 12555 CZ ARG C 258 162.993 190.469 196.200 1.00 44.92 C
ATOM 12556 NH1 ARG C 258 163.286 190.401 194.911 1.00 44.92 N
ATOM 12557 NH2 ARG C 258 163.485 191.454 196.937 1.00 44.92 N
ATOM 12558 N SER C 259 159.089 185.164 199.539 1.00 49.64 N
ATOM 12559 CA SER C 259 159.426 183.802 199.159 1.00 49.64 C
ATOM 12560 C SER C 259 159.585 183.715 197.648 1.00 49.64 C

ATOM 12561 O SER C 259 159.002 184.504 196.901 1.00 49.64 O
ATOM 12562 CB SER C 259 158.355 182.817 199.624 1.00 49.64 C
ATOM 12563 OG SER C 259 157.141 183.028 198.926 1.00 49.64 O
ATOM 12564 N LYS C 260 160.374 182.741 197.202 1.00 56.70 N
ATOM 12565 CA LYS C 260 160.670 182.584 195.787 1.00 56.70 C
ATOM 12566 C LYS C 260 160.461 181.133 195.379 1.00 56.70 C
ATOM 12567 O LYS C 260 160.439 180.232 196.221 1.00 56.70 O
ATOM 12568 CB LYS C 260 162.097 183.046 195.460 1.00 56.70 C
ATOM 12569 CG LYS C 260 163.203 182.232 196.105 1.00 56.70 C
ATOM 12570 CD LYS C 260 163.705 181.152 195.168 1.00 56.70 C
ATOM 12571 CE LYS C 260 164.896 180.426 195.754 1.00 56.70 C
ATOM 12572 NZ LYS C 260 165.386 179.356 194.845 1.00 56.70 N
ATOM 12573 N TYR C 261 160.283 180.932 194.075 1.00 63.04 N
ATOM 12574 CA TYR C 261 159.933 179.632 193.520 1.00 63.04 C
ATOM 12575 C TYR C 261 160.980 178.589 193.915 1.00 63.04 C
ATOM 12576 O TYR C 261 162.175 178.903 193.964 1.00 63.04 O
ATOM 12577 CB TYR C 261 159.835 179.748 191.996 1.00 63.04 C
ATOM 12578 CG TYR C 261 159.418 178.499 191.253 1.00 63.04 C
ATOM 12579 CD1 TYR C 261 158.094 178.084 191.237 1.00 63.04 C
ATOM 12580 CD2 TYR C 261 160.346 177.754 190.540 1.00 63.04 C
ATOM 12581 CE1 TYR C 261 157.709 176.952 190.547 1.00 63.04 C
ATOM 12582 CE2 TYR C 261 159.970 176.622 189.848 1.00 63.04 C
ATOM 12583 CZ TYR C 261 158.651 176.225 189.855 1.00 63.04 C
ATOM 12584 OH TYR C 261 158.271 175.096 189.167 1.00 63.04 O
ATOM 12585 N PRO C 262 160.579 177.335 194.191 1.00 57.23 N
ATOM 12586 CA PRO C 262 159.222 176.782 194.094 1.00 57.23 C
ATOM 12587 C PRO C 262 158.323 176.996 195.316 1.00 57.23 C
ATOM 12588 O PRO C 262 157.470 176.150 195.577 1.00 57.23 O
ATOM 12589 CB PRO C 262 159.483 175.289 193.905 1.00 57.23 C
ATOM 12590 CG PRO C 262 160.742 175.051 194.636 1.00 57.23 C
ATOM 12591 CD PRO C 262 161.576 176.285 194.448 1.00 57.23 C
ATOM 12592 N TYR C 263 158.511 178.095 196.045 1.00 58.36 N
ATOM 12593 CA TYR C 263 157.530 178.573 197.019 1.00 58.36 C
ATOM 12594 C TYR C 263 157.305 177.582 198.165 1.00 58.36 C

ATOM 12595 O TYR C 263 156.200 177.074 198.359 1.00 58.36 O
ATOM 12596 CB TYR C 263 156.192 178.865 196.327 1.00 58.36 C
ATOM 12597 CG TYR C 263 156.204 179.975 195.305 1.00 58.36 C
ATOM 12598 CD1 TYR C 263 157.238 180.888 195.249 1.00 58.36 C
ATOM 12599 CD2 TYR C 263 155.173 180.103 194.389 1.00 58.36 C
ATOM 12600 CE1 TYR C 263 157.251 181.898 194.311 1.00 58.36 C
ATOM 12601 CE2 TYR C 263 155.173 181.109 193.449 1.00 58.36 C
ATOM 12602 CZ TYR C 263 156.215 182.004 193.414 1.00 58.36 C
ATOM 12603 OH TYR C 263 156.219 183.011 192.477 1.00 58.36 O
ATOM 12604 N HIS C 264 158.360 177.294 198.929 1.00 51.89 N
ATOM 12605 CA HIS C 264 158.130 176.515 200.145 1.00 51.89 C
ATOM 12606 C HIS C 264 158.994 176.991 201.312 1.00 51.89 C
ATOM 12607 O HIS C 264 159.506 176.178 202.088 1.00 51.89 O
ATOM 12608 CB HIS C 264 158.320 175.017 199.894 1.00 51.89 C
ATOM 12609 CG HIS C 264 159.708 174.629 199.493 1.00 51.89 C
ATOM 12610 ND1 HIS C 264 160.167 174.738 198.198 1.00 51.89 N
ATOM 12611 CD2 HIS C 264 160.731 174.111 200.212 1.00 51.89 C
ATOM 12612 CE1 HIS C 264 161.416 174.313 198.139 1.00 51.89 C
ATOM 12613 NE2 HIS C 264 161.783 173.928 199.348 1.00 51.89 N
ATOM 12614 N PHE C 265 159.152 178.311 201.468 1.00 43.70 N
ATOM 12615 CA PHE C 265 159.576 178.904 202.739 1.00 43.70 C
ATOM 12616 C PHE C 265 159.583 180.428 202.681 1.00 43.70 C
ATOM 12617 O PHE C 265 159.810 181.013 201.618 1.00 43.70 O
ATOM 12618 CB PHE C 265 160.954 178.390 203.180 1.00 43.70 C
ATOM 12619 CG PHE C 265 162.087 178.794 202.284 1.00 43.70 C
ATOM 12620 CD1 PHE C 265 162.431 178.023 201.191 1.00 43.70 C
ATOM 12621 CD2 PHE C 265 162.845 179.917 202.568 1.00 43.70 C
ATOM 12622 CE1 PHE C 265 163.487 178.383 200.377 1.00 43.70 C
ATOM 12623 CE2 PHE C 265 163.900 180.281 201.759 1.00 43.70 C
ATOM 12624 CZ PHE C 265 164.222 179.513 200.663 1.00 43.70 C
ATOM 12625 N PHE C 266 159.336 181.078 203.817 1.00 37.68 N
ATOM 12626 CA PHE C 266 159.375 182.530 203.884 1.00 37.68 C
ATOM 12627 C PHE C 266 160.791 183.010 204.185 1.00 37.68 C
ATOM 12628 O PHE C 266 161.675 182.239 204.563 1.00 37.68 O

ATOM 12629 CB PHE C 266 158.437 183.068 204.965 1.00 37.68 C
ATOM 12630 CG PHE C 266 156.983 182.803 204.718 1.00 37.68 C
ATOM 12631 CD1 PHE C 266 156.536 182.325 203.503 1.00 37.68 C
ATOM 12632 CD2 PHE C 266 156.057 183.058 205.711 1.00 37.68 C
ATOM 12633 CE1 PHE C 266 155.199 182.082 203.295 1.00 37.68 C
ATOM 12634 CE2 PHE C 266 154.721 182.820 205.510 1.00 37.68 C
ATOM 12635 CZ PHE C 266 154.288 182.334 204.301 1.00 37.68 C
ATOM 12636 N ALA C 267 161.002 184.310 204.010 1.00 37.44 N
ATOM 12637 CA ALA C 267 162.246 184.966 204.397 1.00 37.44 C
ATOM 12638 C ALA C 267 161.945 186.330 205.008 1.00 37.44 C
ATOM 12639 O ALA C 267 162.548 187.338 204.639 1.00 37.44 O
ATOM 12640 CB ALA C 267 163.195 185.090 203.208 1.00 37.44 C
ATOM 12641 N THR C 268 160.977 186.366 205.931 1.00 37.53 N
ATOM 12642 CA THR C 268 160.422 187.610 206.465 1.00 37.53 C
ATOM 12643 C THR C 268 161.511 188.568 206.932 1.00 37.53 C
ATOM 12644 O THR C 268 162.567 188.155 207.417 1.00 37.53 O
ATOM 12645 CB THR C 268 159.478 187.306 207.627 1.00 37.53 C
ATOM 12646 OG1 THR C 268 160.212 186.668 208.678 1.00 37.53 O
ATOM 12647 CG2 THR C 268 158.362 186.386 207.172 1.00 37.53 C
ATOM 12648 N SER C 269 161.240 189.865 206.786 1.00 39.42 N
ATOM 12649 CA SER C 269 162.279 190.881 206.904 1.00 39.42 C
ATOM 12650 C SER C 269 162.588 191.259 208.347 1.00 39.42 C
ATOM 12651 O SER C 269 162.673 192.445 208.678 1.00 39.42 O
ATOM 12652 CB SER C 269 161.862 192.130 206.127 1.00 39.42 C
ATOM 12653 OG SER C 269 162.787 193.184 206.309 1.00 39.42 O
ATOM 12654 N THR C 270 162.767 190.254 209.205 1.00 38.52 N
ATOM 12655 CA THR C 270 163.389 190.438 210.510 1.00 38.52 C
ATOM 12656 C THR C 270 164.251 189.243 210.889 1.00 38.52 C
ATOM 12657 O THR C 270 164.759 189.199 212.016 1.00 38.52 O
ATOM 12658 CB THR C 270 162.348 190.686 211.610 1.00 38.52 C
ATOM 12659 OG1 THR C 270 161.380 189.631 211.609 1.00 38.52 O
ATOM 12660 CG2 THR C 270 161.664 192.025 211.423 1.00 38.52 C
ATOM 12661 N GLY C 271 164.433 188.279 209.991 1.00 38.76 N
ATOM 12662 CA GLY C 271 165.191 187.077 210.265 1.00 38.76 C

ATOM 12663 C GLY C 271 164.353 185.826 210.402 1.00 38.76 C
ATOM 12664 O GLY C 271 164.889 184.723 210.240 1.00 38.76 O
ATOM 12665 N ASP C 272 163.062 185.957 210.693 1.00 38.61 N
ATOM 12666 CA ASP C 272 162.207 184.794 210.868 1.00 38.61 C
ATOM 12667 C ASP C 272 162.087 184.005 209.570 1.00 38.61 C
ATOM 12668 O ASP C 272 162.136 184.561 208.470 1.00 38.61 O
ATOM 12669 CB ASP C 272 160.823 185.224 211.346 1.00 38.61 C
ATOM 12670 CG ASP C 272 160.845 185.779 212.753 1.00 38.61 C
ATOM 12671 OD1 ASP C 272 161.706 185.347 213.546 1.00 38.61 O
ATOM 12672 OD2 ASP C 272 160.008 186.651 213.065 1.00 38.61 O
ATOM 12673 N VAL C 273 161.928 182.692 209.707 1.00 37.65 N
ATOM 12674 CA VAL C 273 161.806 181.792 208.564 1.00 37.65 C
ATOM 12675 C VAL C 273 160.874 180.655 208.947 1.00 37.65 C
ATOM 12676 O VAL C 273 160.976 180.101 210.045 1.00 37.65 O
ATOM 12677 CB VAL C 273 163.172 181.239 208.113 1.00 37.65 C
ATOM 12678 CG1 VAL C 273 162.982 180.179 207.048 1.00 37.65 C
ATOM 12679 CG2 VAL C 273 164.043 182.355 207.585 1.00 37.65 C
ATOM 12680 N VAL C 274 159.967 180.304 208.042 1.00 42.16 N
ATOM 12681 CA VAL C 274 159.034 179.210 208.265 1.00 42.16 C
ATOM 12682 C VAL C 274 158.978 178.358 207.008 1.00 42.16 C
ATOM 12683 O VAL C 274 159.108 178.861 205.888 1.00 42.16 O
ATOM 12684 CB VAL C 274 157.629 179.719 208.638 1.00 42.16 C
ATOM 12685 CG1 VAL C 274 157.696 180.566 209.891 1.00 42.16 C
ATOM 12686 CG2 VAL C 274 157.042 180.503 207.496 1.00 42.16 C
ATOM 12687 N ASP C 275 158.785 177.054 207.199 1.00 48.77 N
ATOM 12688 CA ASP C 275 158.760 176.102 206.091 1.00 48.77 C
ATOM 12689 C ASP C 275 157.310 175.800 205.729 1.00 48.77 C
ATOM 12690 O ASP C 275 156.770 174.735 206.025 1.00 48.77 O
ATOM 12691 CB ASP C 275 159.529 174.838 206.456 1.00 48.77 C
ATOM 12692 CG ASP C 275 161.018 175.078 206.560 1.00 48.77 C
ATOM 12693 OD1 ASP C 275 161.519 175.991 205.872 1.00 48.77 O
ATOM 12694 OD2 ASP C 275 161.690 174.354 207.324 1.00 48.77 O
ATOM 12695 N ILE C 276 156.677 176.764 205.068 1.00 46.58 N
ATOM 12696 CA ILE C 276 155.329 176.601 204.536 1.00 46.58 C

ATOM 12697 C ILE C 276 155.215 177.436 203.274 1.00 46.58 C
ATOM 12698 O ILE C 276 155.697 178.570 203.222 1.00 46.58 O
ATOM 12699 CB ILE C 276 154.243 177.018 205.550 1.00 46.58 C
ATOM 12700 CG1 ILE C 276 154.243 176.097 206.767 1.00 46.58 C
ATOM 12701 CG2 ILE C 276 152.881 177.010 204.890 1.00 46.58 C
ATOM 12702 CD1 ILE C 276 153.367 176.588 207.890 1.00 46.58 C
ATOM 12703 N SER C 277 154.580 176.875 202.255 1.00 50.48 N
ATOM 12704 CA SER C 277 154.277 177.664 201.075 1.00 50.48 C
ATOM 12705 C SER C 277 153.293 178.769 201.448 1.00 50.48 C
ATOM 12706 O SER C 277 152.418 178.556 202.291 1.00 50.48 O
ATOM 12707 CB SER C 277 153.689 176.787 199.975 1.00 50.48 C
ATOM 12708 OG SER C 277 152.420 176.289 200.354 1.00 50.48 O
ATOM 12709 N PRO C 278 153.423 179.959 200.855 1.00 45.16 N
ATOM 12710 CA PRO C 278 152.530 181.065 201.238 1.00 45.16 C
ATOM 12711 C PRO C 278 151.059 180.761 201.035 1.00 45.16 C
ATOM 12712 O PRO C 278 150.246 181.039 201.924 1.00 45.16 O
ATOM 12713 CB PRO C 278 152.999 182.213 200.335 1.00 45.16 C
ATOM 12714 CG PRO C 278 154.408 181.878 200.005 1.00 45.16 C
ATOM 12715 CD PRO C 278 154.454 180.387 199.898 1.00 45.16 C
ATOM 12716 N PHE C 279 150.690 180.199 199.888 1.00 56.10 N
ATOM 12717 CA PHE C 279 149.291 179.903 199.587 1.00 56.10 C
ATOM 12718 C PHE C 279 148.992 178.425 199.842 1.00 56.10 C
ATOM 12719 O PHE C 279 148.588 177.665 198.967 1.00 56.10 O
ATOM 12720 CB PHE C 279 148.956 180.339 198.159 1.00 56.10 C
ATOM 12721 CG PHE C 279 149.849 179.744 197.097 1.00 56.10 C
ATOM 12722 CD1 PHE C 279 151.070 180.323 196.799 1.00 56.10 C
ATOM 12723 CD2 PHE C 279 149.437 178.654 196.349 1.00 56.10 C
ATOM 12724 CE1 PHE C 279 151.883 179.794 195.822 1.00 56.10 C
ATOM 12725 CE2 PHE C 279 150.245 178.120 195.368 1.00 56.10 C
ATOM 12726 CZ PHE C 279 151.469 178.692 195.103 1.00 56.10 C
ATOM 12727 N TYR C 280 149.169 178.032 201.095 1.00 54.71 N
ATOM 12728 CA TYR C 280 148.765 176.711 201.565 1.00 54.71 C
ATOM 12729 C TYR C 280 147.449 176.863 202.313 1.00 54.71 C
ATOM 12730 O TYR C 280 147.440 177.117 203.519 1.00 54.71 O

ATOM 12731 CB TYR C 280 149.821 176.085 202.466 1.00 54.71 C
ATOM 12732 CG TYR C 280 149.400 174.737 203.003 1.00 54.71 C
ATOM 12733 CD1 TYR C 280 149.472 173.602 202.214 1.00 54.71 C
ATOM 12734 CD2 TYR C 280 148.904 174.606 204.291 1.00 54.71 C
ATOM 12735 CE1 TYR C 280 149.079 172.368 202.700 1.00 54.71 C
ATOM 12736 CE2 TYR C 280 148.507 173.381 204.784 1.00 54.71 C
ATOM 12737 CZ TYR C 280 148.597 172.266 203.987 1.00 54.71 C
ATOM 12738 OH TYR C 280 148.201 171.045 204.481 1.00 54.71 O
ATOM 12739 N ASN C 281 146.336 176.699 201.611 1.00 59.81 N
ATOM 12740 CA ASN C 281 145.054 176.672 202.296 1.00 59.81 C
ATOM 12741 C ASN C 281 144.869 175.281 202.902 1.00 59.81 C
ATOM 12742 O ASN C 281 145.807 174.483 202.982 1.00 59.81 O
ATOM 12743 CB ASN C 281 143.928 177.105 201.357 1.00 59.81 C
ATOM 12744 CG ASN C 281 143.808 176.233 200.127 1.00 59.81 C
ATOM 12745 OD1 ASN C 281 144.526 175.248 199.970 1.00 59.81 O
ATOM 12746 ND2 ASN C 281 142.886 176.599 199.240 1.00 59.81 N
ATOM 12747 N GLY C 282 143.657 174.975 203.363 1.00 60.53 N
ATOM 12748 CA GLY C 282 143.450 173.745 204.104 1.00 60.53 C
ATOM 12749 C GLY C 282 143.598 172.476 203.289 1.00 60.53 C
ATOM 12750 O GLY C 282 143.771 171.401 203.873 1.00 60.53 O
ATOM 12751 N THR C 283 143.539 172.567 201.962 1.00 63.41 N
ATOM 12752 CA THR C 283 143.423 171.387 201.105 1.00 63.41 C
ATOM 12753 C THR C 283 144.390 171.451 199.926 1.00 63.41 C
ATOM 12754 O THR C 283 144.010 171.236 198.774 1.00 63.41 O
ATOM 12755 CB THR C 283 141.992 171.223 200.598 1.00 63.41 C
ATOM 12756 OG1 THR C 283 141.632 172.357 199.800 1.00 63.41 O
ATOM 12757 CG2 THR C 283 141.023 171.102 201.764 1.00 63.41 C
ATOM 12758 N ASN C 284 145.665 171.747 200.190 1.00 63.41 N
ATOM 12759 CA ASN C 284 146.657 171.732 199.120 1.00 63.41 C
ATOM 12760 C ASN C 284 147.961 171.078 199.552 1.00 63.41 C
ATOM 12761 O ASN C 284 149.037 171.491 199.107 1.00 63.41 O
ATOM 12762 CB ASN C 284 146.962 173.138 198.610 1.00 63.41 C
ATOM 12763 CG ASN C 284 145.834 173.719 197.803 1.00 63.41 C
ATOM 12764 OD1 ASN C 284 145.177 173.017 197.038 1.00 63.41 O

ATOM 12765 ND2 ASN C 284 145.618 175.018 197.948 1.00 63.41 N
ATOM 12766 N ARG C 285 147.898 170.064 200.415 1.00 67.53 N
ATOM 12767 CA ARG C 285 149.135 169.435 200.867 1.00 67.53 C
ATOM 12768 C ARG C 285 149.804 168.655 199.742 1.00 67.53 C
ATOM 12769 O ARG C 285 151.037 168.611 199.661 1.00 67.53 O
ATOM 12770 CB ARG C 285 148.869 168.526 202.064 1.00 67.53 C
ATOM 12771 CG ARG C 285 150.136 167.922 202.648 1.00 67.53 C
ATOM 12772 CD ARG C 285 149.851 167.136 203.914 1.00 67.53 C
ATOM 12773 NE ARG C 285 151.047 166.453 204.394 1.00 67.53 N
ATOM 12774 CZ ARG C 285 151.960 167.009 205.183 1.00 67.53 C
ATOM 12775 NH1 ARG C 285 151.815 168.262 205.586 1.00 67.53 N
ATOM 12776 NH2 ARG C 285 153.019 166.311 205.566 1.00 67.53 N
ATOM 12777 N ASN C 286 149.015 168.032 198.863 1.00 76.75 N
ATOM 12778 CA ASN C 286 149.604 167.324 197.731 1.00 76.75 C
ATOM 12779 C ASN C 286 150.131 168.287 196.675 1.00 76.75 C
ATOM 12780 O ASN C 286 151.162 168.015 196.049 1.00 76.75 O
ATOM 12781 CB ASN C 286 148.585 166.372 197.104 1.00 76.75 C
ATOM 12782 CG ASN C 286 148.373 165.100 197.916 1.00 76.75 C
ATOM 12783 OD1 ASN C 286 149.312 164.542 198.480 1.00 76.75 O
ATOM 12784 ND2 ASN C 286 147.128 164.630 197.954 1.00 76.75 N
ATOM 12785 N ALA C 287 149.446 169.408 196.463 1.00 65.96 N
ATOM 12786 CA ALA C 287 149.842 170.361 195.435 1.00 65.96 C
ATOM 12787 C ALA C 287 150.818 171.412 195.943 1.00 65.96 C
ATOM 12788 O ALA C 287 151.641 171.907 195.165 1.00 65.96 O
ATOM 12789 CB ALA C 287 148.607 171.053 194.853 1.00 65.96 C
ATOM 12790 N SER C 288 150.747 171.763 197.225 1.00 57.78 N
ATOM 12791 CA SER C 288 151.603 172.781 197.811 1.00 57.78 C
ATOM 12792 C SER C 288 152.260 172.245 199.076 1.00 57.78 C
ATOM 12793 O SER C 288 151.668 171.459 199.821 1.00 57.78 O
ATOM 12794 CB SER C 288 150.814 174.050 198.131 1.00 57.78 C
ATOM 12795 OG SER C 288 149.852 173.798 199.136 1.00 57.78 O
ATOM 12796 N TYR C 289 153.491 172.684 199.307 1.00 51.39 N
ATOM 12797 CA TYR C 289 154.329 172.155 200.370 1.00 51.39 C
ATOM 12798 C TYR C 289 153.810 172.584 201.741 1.00 51.39 C

ATOM 12799 O TYR C 289 153.178 173.632 201.897 1.00 51.39 O
ATOM 12800 CB TYR C 289 155.769 172.627 200.171 1.00 51.39 C
ATOM 12801 CG TYR C 289 156.765 172.071 201.156 1.00 51.39 C
ATOM 12802 CD1 TYR C 289 157.253 170.781 201.025 1.00 51.39 C
ATOM 12803 CD2 TYR C 289 157.217 172.837 202.216 1.00 51.39 C
ATOM 12804 CE1 TYR C 289 158.166 170.272 201.923 1.00 51.39 C
ATOM 12805 CE2 TYR C 289 158.127 172.338 203.118 1.00 51.39 C
ATOM 12806 CZ TYR C 289 158.600 171.056 202.969 1.00 51.39 C
ATOM 12807 OH TYR C 289 159.510 170.556 203.871 1.00 51.39 O
ATOM 12808 N PHE C 290 154.078 171.746 202.740 1.00 54.22 N
ATOM 12809 CA PHE C 290 153.757 172.065 204.130 1.00 54.22 C
ATOM 12810 C PHE C 290 154.538 171.120 205.028 1.00 54.22 C
ATOM 12811 O PHE C 290 154.394 169.900 204.906 1.00 54.22 O
ATOM 12812 CB PHE C 290 152.264 171.936 204.396 1.00 54.22 C
ATOM 12813 CG PHE C 290 151.878 172.268 205.803 1.00 54.22 C
ATOM 12814 CD1 PHE C 290 151.752 173.583 206.207 1.00 54.22 C
ATOM 12815 CD2 PHE C 290 151.671 171.266 206.731 1.00 54.22 C
ATOM 12816 CE1 PHE C 290 151.405 173.890 207.504 1.00 54.22 C
ATOM 12817 CE2 PHE C 290 151.328 171.566 208.026 1.00 54.22 C
ATOM 12818 CZ PHE C 290 151.194 172.880 208.414 1.00 54.22 C
ATOM 12819 N GLY C 291 155.360 171.668 205.920 1.00 53.65 N
ATOM 12820 CA GLY C 291 156.172 170.821 206.772 1.00 53.65 C
ATOM 12821 C GLY C 291 156.395 171.273 208.202 1.00 53.65 C
ATOM 12822 O GLY C 291 157.441 170.959 208.777 1.00 53.65 O
ATOM 12823 N GLU C 292 155.450 171.998 208.804 1.00 54.37 N
ATOM 12824 CA GLU C 292 155.659 172.525 210.148 1.00 54.37 C
ATOM 12825 C GLU C 292 154.997 171.681 211.230 1.00 54.37 C
ATOM 12826 O GLU C 292 155.697 171.110 212.071 1.00 54.37 O
ATOM 12827 CB GLU C 292 155.153 173.968 210.231 1.00 54.37 C
ATOM 12828 CG GLU C 292 155.984 174.948 209.439 1.00 54.37 C
ATOM 12829 CD GLU C 292 157.381 175.101 210.000 1.00 54.37 C
ATOM 12830 OE1 GLU C 292 157.547 174.992 211.234 1.00 54.37 O
ATOM 12831 OE2 GLU C 292 158.315 175.327 209.204 1.00 54.37 O
ATOM 12832 N ASN C 293 153.670 171.564 211.222 1.00 62.27 N

ATOM 12833 CA ASN C 293 152.985 170.846 212.290 1.00 62.27 C
ATOM 12834 C ASN C 293 151.485 170.813 212.028 1.00 62.27 C
ATOM 12835 O ASN C 293 151.015 171.352 211.023 1.00 62.27 O
ATOM 12836 CB ASN C 293 153.275 171.504 213.641 1.00 62.27 C
ATOM 12837 CG ASN C 293 153.320 170.502 214.778 1.00 62.27 C
ATOM 12838 OD1 ASN C 293 153.730 170.831 215.892 1.00 62.27 O
ATOM 12839 ND2 ASN C 293 152.950 169.261 214.492 1.00 62.27 N
ATOM 12840 N ALA C 294 150.720 170.187 212.914 1.00 61.54 N
ATOM 12841 CA ALA C 294 149.268 170.237 212.865 1.00 61.54 C
ATOM 12842 C ALA C 294 148.640 170.840 214.110 1.00 61.54 C
ATOM 12843 O ALA C 294 147.561 171.424 214.015 1.00 61.54 O
ATOM 12844 CB ALA C 294 148.684 168.835 212.645 1.00 61.54 C
ATOM 12845 N ASP C 295 149.285 170.716 215.269 1.00 61.83 N
ATOM 12846 CA ASP C 295 148.817 171.338 216.499 1.00 61.83 C
ATOM 12847 C ASP C 295 149.368 172.750 216.670 1.00 61.83 C
ATOM 12848 O ASP C 295 149.202 173.347 217.736 1.00 61.83 O
ATOM 12849 CB ASP C 295 149.203 170.465 217.697 1.00 61.83 C
ATOM 12850 CG ASP C 295 148.386 170.774 218.938 1.00 61.83 C
ATOM 12851 OD1 ASP C 295 147.498 171.651 218.869 1.00 61.83 O
ATOM 12852 OD2 ASP C 295 148.630 170.134 219.982 1.00 61.83 O
ATOM 12853 N LYS C 296 150.018 173.291 215.644 1.00 53.04 N
ATOM 12854 CA LYS C 296 150.622 174.619 215.661 1.00 53.04 C
ATOM 12855 C LYS C 296 150.254 175.375 214.394 1.00 53.04 C
ATOM 12856 O LYS C 296 151.100 175.959 213.714 1.00 53.04 O
ATOM 12857 CB LYS C 296 152.136 174.528 215.813 1.00 53.04 C
ATOM 12858 CG LYS C 296 152.586 173.850 217.093 1.00 53.04 C
ATOM 12859 CD LYS C 296 152.248 174.691 218.309 1.00 53.04 C
ATOM 12860 CE LYS C 296 152.684 174.003 219.590 1.00 53.04 C
ATOM 12861 NZ LYS C 296 154.167 173.933 219.706 1.00 53.04 N
ATOM 12862 N PHE C 297 148.969 175.366 214.056 1.00 43.20 N
ATOM 12863 CA PHE C 297 148.514 175.955 212.805 1.00 43.20 C
ATOM 12864 C PHE C 297 147.006 176.133 212.879 1.00 43.20 C
ATOM 12865 O PHE C 297 146.299 175.235 213.344 1.00 43.20 O
ATOM 12866 CB PHE C 297 148.903 175.063 211.625 1.00 43.20 C

ATOM 12867 CG PHE C 297 148.556 175.633 210.288 1.00 43.20 C
ATOM 12868 CD1 PHE C 297 149.338 176.618 209.716 1.00 43.20 C
ATOM 12869 CD2 PHE C 297 147.450 175.178 209.599 1.00 43.20 C
ATOM 12870 CE1 PHE C 297 149.020 177.139 208.481 1.00 43.20 C
ATOM 12871 CE2 PHE C 297 147.129 175.695 208.368 1.00 43.20 C
ATOM 12872 CZ PHE C 297 147.913 176.678 207.807 1.00 43.20 C
ATOM 12873 N PHE C 298 146.520 177.286 212.432 1.00 41.32 N
ATOM 12874 CA PHE C 298 145.102 177.604 212.484 1.00 41.32 C
ATOM 12875 C PHE C 298 144.730 178.450 211.278 1.00 41.32 C
ATOM 12876 O PHE C 298 145.464 179.370 210.909 1.00 41.32 O
ATOM 12877 CB PHE C 298 144.744 178.361 213.768 1.00 41.32 C
ATOM 12878 CG PHE C 298 144.887 177.546 215.018 1.00 41.32 C
ATOM 12879 CD1 PHE C 298 143.891 176.671 215.409 1.00 41.32 C
ATOM 12880 CD2 PHE C 298 146.014 177.666 215.810 1.00 41.32 C
ATOM 12881 CE1 PHE C 298 144.019 175.928 216.563 1.00 41.32 C
ATOM 12882 CE2 PHE C 298 146.147 176.926 216.964 1.00 41.32 C
ATOM 12883 CZ PHE C 298 145.149 176.055 217.341 1.00 41.32 C
ATOM 12884 N ILE C 299 143.589 178.141 210.669 1.00 39.85 N
ATOM 12885 CA ILE C 299 143.058 178.911 209.550 1.00 39.85 C
ATOM 12886 C ILE C 299 141.658 179.373 209.921 1.00 39.85 C
ATOM 12887 O ILE C 299 140.813 178.559 210.313 1.00 39.85 O
ATOM 12888 CB ILE C 299 143.039 178.101 208.247 1.00 39.85 C
ATOM 12889 CG1 ILE C 299 144.460 177.736 207.822 1.00 39.85 C
ATOM 12890 CG2 ILE C 299 142.347 178.886 207.151 1.00 39.85 C
ATOM 12891 CD1 ILE C 299 144.506 176.761 206.676 1.00 39.85 C
ATOM 12892 N PHE C 300 141.416 180.676 209.800 1.00 39.59 N
ATOM 12893 CA PHE C 300 140.142 181.281 210.151 1.00 39.59 C
ATOM 12894 C PHE C 300 139.504 181.921 208.932 1.00 39.59 C
ATOM 12895 O PHE C 300 140.173 182.681 208.220 1.00 39.59 O
ATOM 12896 CB PHE C 300 140.338 182.339 211.242 1.00 39.59 C
ATOM 12897 CG PHE C 300 140.681 181.775 212.590 1.00 39.59 C
ATOM 12898 CD1 PHE C 300 139.687 181.321 213.435 1.00 39.59 C
ATOM 12899 CD2 PHE C 300 141.994 181.706 213.017 1.00 39.59 C
ATOM 12900 CE1 PHE C 300 139.995 180.810 214.677 1.00 39.59 C

ATOM 12901 CE2 PHE C 300 142.306 181.193 214.259 1.00 39.59 C
ATOM 12902 CZ PHE C 300 141.305 180.745 215.089 1.00 39.59 C
ATOM 12903 N PRO C 301 138.229 181.649 208.655 1.00 42.27 N
ATOM 12904 CA PRO C 301 137.521 182.397 207.609 1.00 42.27 C
ATOM 12905 C PRO C 301 136.860 183.645 208.172 1.00 42.27 C
ATOM 12906 O PRO C 301 136.195 183.613 209.210 1.00 42.27 O
ATOM 12907 CB PRO C 301 136.464 181.392 207.134 1.00 42.27 C
ATOM 12908 CG PRO C 301 136.164 180.599 208.355 1.00 42.27 C
ATOM 12909 CD PRO C 301 137.460 180.481 209.113 1.00 42.27 C
ATOM 12910 N ASN C 302 137.033 184.758 207.460 1.00 45.96 N
ATOM 12911 CA ASN C 302 136.475 186.049 207.864 1.00 45.96 C
ATOM 12912 C ASN C 302 136.970 186.454 209.253 1.00 45.96 C
ATOM 12913 O ASN C 302 136.204 186.561 210.211 1.00 45.96 O
ATOM 12914 CB ASN C 302 134.946 186.024 207.828 1.00 45.96 C
ATOM 12915 CG ASN C 302 134.400 185.970 206.426 1.00 45.96 C
ATOM 12916 OD1 ASN C 302 134.916 186.620 205.519 1.00 45.96 O
ATOM 12917 ND2 ASN C 302 133.338 185.202 206.240 1.00 45.96 N
ATOM 12918 N TYR C 303 138.277 186.675 209.349 1.00 42.17 N
ATOM 12919 CA TYR C 303 138.897 187.096 210.602 1.00 42.17 C
ATOM 12920 C TYR C 303 139.061 188.611 210.549 1.00 42.17 C
ATOM 12921 O TYR C 303 140.002 189.132 209.951 1.00 42.17 O
ATOM 12922 CB TYR C 303 140.225 186.384 210.821 1.00 42.17 C
ATOM 12923 CG TYR C 303 140.868 186.697 212.149 1.00 42.17 C
ATOM 12924 CD1 TYR C 303 140.336 186.199 213.329 1.00 42.17 C
ATOM 12925 CD2 TYR C 303 142.013 187.471 212.224 1.00 42.17 C
ATOM 12926 CE1 TYR C 303 140.917 186.475 214.546 1.00 42.17 C
ATOM 12927 CE2 TYR C 303 142.605 187.749 213.438 1.00 42.17 C
ATOM 12928 CZ TYR C 303 142.052 187.249 214.595 1.00 42.17 C
ATOM 12929 OH TYR C 303 142.637 187.525 215.809 1.00 42.17 O
ATOM 12930 N THR C 304 138.116 189.319 211.168 1.00 43.75 N
ATOM 12931 CA THR C 304 138.155 190.774 211.192 1.00 43.75 C
ATOM 12932 C THR C 304 139.435 191.259 211.859 1.00 43.75 C
ATOM 12933 O THR C 304 139.947 190.638 212.794 1.00 43.75 O
ATOM 12934 CB THR C 304 136.935 191.327 211.930 1.00 43.75 C

ATOM 12935 OG1 THR C 304 136.977 190.918 213.302 1.00 43.75 O
ATOM 12936 CG2 THR C 304 135.659 190.800 211.304 1.00 43.75 C
ATOM 12937 N ILE C 305 139.959 192.378 211.367 1.00 46.40 N
ATOM 12938 CA ILE C 305 141.236 192.905 211.834 1.00 46.40 C
ATOM 12939 C ILE C 305 141.161 194.423 211.852 1.00 46.40 C
ATOM 12940 O ILE C 305 140.526 195.037 210.991 1.00 46.40 O
ATOM 12941 CB ILE C 305 142.405 192.421 210.947 1.00 46.40 C
ATOM 12942 CG1 ILE C 305 142.600 190.912 211.085 1.00 46.40 C
ATOM 12943 CG2 ILE C 305 143.686 193.161 211.282 1.00 46.40 C
ATOM 12944 CD1 ILE C 305 143.578 190.337 210.089 1.00 46.40 C
ATOM 12945 N VAL C 306 141.808 195.028 212.851 1.00 50.49 N
ATOM 12946 CA VAL C 306 141.964 196.474 212.859 1.00 50.49 C
ATOM 12947 C VAL C 306 142.776 196.895 211.644 1.00 50.49 C
ATOM 12948 O VAL C 306 143.734 196.220 211.247 1.00 50.49 O
ATOM 12949 CB VAL C 306 142.630 196.936 214.165 1.00 50.49 C
ATOM 12950 CG1 VAL C 306 142.918 198.423 214.116 1.00 50.49 C
ATOM 12951 CG2 VAL C 306 141.745 196.604 215.351 1.00 50.49 C
ATOM 12952 N SER C 307 142.388 198.018 211.039 1.00 53.82 N
ATOM 12953 CA SER C 307 143.059 198.494 209.837 1.00 53.82 C
ATOM 12954 C SER C 307 144.387 199.175 210.132 1.00 53.82 C
ATOM 12955 O SER C 307 145.231 199.269 209.234 1.00 53.82 O
ATOM 12956 CB SER C 307 142.153 199.458 209.073 1.00 53.82 C
ATOM 12957 OG SER C 307 141.921 200.635 209.826 1.00 53.82 O
ATOM 12958 N ASP C 308 144.592 199.651 211.358 1.00 50.16 N
ATOM 12959 CA ASP C 308 145.852 200.286 211.720 1.00 50.16 C
ATOM 12960 C ASP C 308 145.979 200.389 213.233 1.00 50.16 C
ATOM 12961 O ASP C 308 145.039 200.811 213.913 1.00 50.16 O
ATOM 12962 CB ASP C 308 145.960 201.668 211.077 1.00 50.16 C
ATOM 12963 CG ASP C 308 147.328 202.289 211.262 1.00 50.16 C
ATOM 12964 OD1 ASP C 308 148.279 201.835 210.592 1.00 50.16 O
ATOM 12965 OD2 ASP C 308 147.452 203.232 212.071 1.00 50.16 O
ATOM 12966 N PHE C 309 147.137 200.008 213.765 1.00 40.93 N
ATOM 12967 CA PHE C 309 147.341 199.984 215.205 1.00 40.93 C
ATOM 12968 C PHE C 309 147.854 201.328 215.703 1.00 40.93 C

ATOM 12969 O PHE C 309 148.539 202.058 214.982 1.00 40.93 O
ATOM 12970 CB PHE C 309 148.322 198.878 215.583 1.00 40.93 C
ATOM 12971 CG PHE C 309 147.814 197.501 215.297 1.00 40.93 C
ATOM 12972 CD1 PHE C 309 146.923 196.888 216.154 1.00 40.93 C
ATOM 12973 CD2 PHE C 309 148.227 196.818 214.168 1.00 40.93 C
ATOM 12974 CE1 PHE C 309 146.454 195.621 215.890 1.00 40.93 C
ATOM 12975 CE2 PHE C 309 147.762 195.551 213.900 1.00 40.93 C
ATOM 12976 CZ PHE C 309 146.875 194.952 214.761 1.00 40.93 C
ATOM 12977 N GLY C 310 147.521 201.646 216.948 1.00 46.21 N
ATOM 12978 CA GLY C 310 147.885 202.919 217.530 1.00 46.21 C
ATOM 12979 C GLY C 310 146.657 203.757 217.802 1.00 46.21 C
ATOM 12980 O GLY C 310 146.551 204.410 218.843 1.00 46.21 O
ATOM 12981 N ARG C 311 145.718 203.740 216.866 1.00 52.05 N
ATOM 12982 CA ARG C 311 144.462 204.439 217.068 1.00 52.05 C
ATOM 12983 C ARG C 311 143.656 203.754 218.168 1.00 52.05 C
ATOM 12984 O ARG C 311 143.622 202.522 218.236 1.00 52.05 O
ATOM 12985 CB ARG C 311 143.651 204.470 215.775 1.00 52.05 C
ATOM 12986 CG ARG C 311 144.338 205.183 214.624 1.00 52.05 C
ATOM 12987 CD ARG C 311 144.419 206.677 214.873 1.00 52.05 C
ATOM 12988 NE ARG C 311 145.080 207.375 213.775 1.00 52.05 N
ATOM 12989 CZ ARG C 311 144.449 207.849 212.707 1.00 52.05 C
ATOM 12990 NH1 ARG C 311 143.137 207.699 212.589 1.00 52.05 N
ATOM 12991 NH2 ARG C 311 145.130 208.472 211.755 1.00 52.05 N
ATOM 12992 N PRO C 312 143.015 204.519 219.053 1.00 54.89 N
ATOM 12993 CA PRO C 312 142.112 203.890 220.030 1.00 54.89 C
ATOM 12994 C PRO C 312 140.977 203.129 219.371 1.00 54.89 C
ATOM 12995 O PRO C 312 140.549 202.086 219.881 1.00 54.89 O
ATOM 12996 CB PRO C 312 141.604 205.084 220.851 1.00 54.89 C
ATOM 12997 CG PRO C 312 142.653 206.133 220.678 1.00 54.89 C
ATOM 12998 CD PRO C 312 143.154 205.966 219.278 1.00 54.89 C
ATOM 12999 N ASN C 313 140.478 203.628 218.243 1.00 59.27 N
ATOM 13000 CA ASN C 313 139.479 202.931 217.450 1.00 59.27 C
ATOM 13001 C ASN C 313 139.703 203.269 215.985 1.00 59.27 C
ATOM 13002 O ASN C 313 140.183 204.355 215.650 1.00 59.27 O

ATOM 13003 CB ASN C 313 138.053 203.303 217.870 1.00 59.27 C
ATOM 13004 CG ASN C 313 137.662 202.697 219.200 1.00 59.27 C
ATOM 13005 OD1 ASN C 313 137.953 201.534 219.472 1.00 59.27 O
ATOM 13006 ND2 ASN C 313 136.997 203.482 220.037 1.00 59.27 N
ATOM 13007 N SER C 314 139.356 202.328 215.117 1.00 63.61 N
ATOM 13008 CA SER C 314 139.527 202.515 213.683 1.00 63.61 C
ATOM 13009 C SER C 314 138.430 201.731 212.972 1.00 63.61 C
ATOM 13010 O SER C 314 137.447 201.313 213.592 1.00 63.61 O
ATOM 13011 CB SER C 314 140.941 202.094 213.252 1.00 63.61 C
ATOM 13012 OG SER C 314 141.124 200.701 213.418 1.00 63.61 O
ATOM 13013 N ALA C 315 138.597 201.532 211.669 1.00 62.39 N
ATOM 13014 CA ALA C 315 137.642 200.798 210.851 1.00 62.39 C
ATOM 13015 C ALA C 315 138.225 199.431 210.519 1.00 62.39 C
ATOM 13016 O ALA C 315 139.290 199.341 209.901 1.00 62.39 O
ATOM 13017 CB ALA C 315 137.311 201.570 209.574 1.00 62.39 C
ATOM 13018 N LEU C 316 137.529 198.375 210.932 1.00 57.02 N
ATOM 13019 CA LEU C 316 138.003 197.027 210.671 1.00 57.02 C
ATOM 13020 C LEU C 316 138.006 196.743 209.172 1.00 57.02 C
ATOM 13021 O LEU C 316 137.439 197.485 208.367 1.00 57.02 O
ATOM 13022 CB LEU C 316 137.134 196.004 211.400 1.00 57.02 C
ATOM 13023 CG LEU C 316 137.375 195.830 212.901 1.00 57.02 C
ATOM 13024 CD1 LEU C 316 136.862 197.029 213.675 1.00 57.02 C
ATOM 13025 CD2 LEU C 316 136.720 194.556 213.403 1.00 57.02 C
ATOM 13026 N GLU C 317 138.660 195.642 208.803 1.00 54.98 N
ATOM 13027 CA GLU C 317 138.761 195.231 207.403 1.00 54.98 C
ATOM 13028 C GLU C 317 138.800 193.705 207.384 1.00 54.98 C
ATOM 13029 O GLU C 317 139.858 193.107 207.600 1.00 54.98 O
ATOM 13030 CB GLU C 317 139.991 195.832 206.738 1.00 54.98 C
ATOM 13031 CG GLU C 317 140.130 195.485 205.269 1.00 54.98 C
ATOM 13032 CD GLU C 317 139.005 196.059 204.435 1.00 54.98 C
ATOM 13033 OE1 GLU C 317 138.414 197.073 204.859 1.00 54.98 O
ATOM 13034 OE2 GLU C 317 138.712 195.500 203.357 1.00 54.98 O
ATOM 13035 N THR C 318 137.653 193.090 207.116 1.00 50.60 N
ATOM 13036 CA THR C 318 137.509 191.643 207.227 1.00 50.60 C

ATOM 13037 C THR C 318 138.215 190.973 206.055 1.00 50.60 C
ATOM 13038 O THR C 318 137.751 191.051 204.914 1.00 50.60 O
ATOM 13039 CB THR C 318 136.035 191.259 207.255 1.00 50.60 C
ATOM 13040 OG1 THR C 318 135.445 191.545 205.982 1.00 50.60 O
ATOM 13041 CG2 THR C 318 135.311 192.063 208.318 1.00 50.60 C
ATOM 13042 N HIS C 319 139.327 190.302 206.334 1.00 46.96 N
ATOM 13043 CA HIS C 319 140.042 189.562 205.305 1.00 46.96 C
ATOM 13044 C HIS C 319 139.318 188.245 205.040 1.00 46.96 C
ATOM 13045 O HIS C 319 138.218 187.998 205.543 1.00 46.96 O
ATOM 13046 CB HIS C 319 141.494 189.346 205.716 1.00 46.96 C
ATOM 13047 CG HIS C 319 142.289 190.609 205.803 1.00 46.96 C
ATOM 13048 ND1 HIS C 319 143.577 190.645 206.289 1.00 46.96 N
ATOM 13049 CD2 HIS C 319 141.973 191.884 205.478 1.00 46.96 C
ATOM 13050 CE1 HIS C 319 144.024 191.887 206.252 1.00 46.96 C
ATOM 13051 NE2 HIS C 319 143.070 192.659 205.765 1.00 46.96 N
ATOM 13052 N ARG C 320 139.936 187.373 204.246 1.00 50.15 N
ATOM 13053 CA ARG C 320 139.314 186.121 203.831 1.00 50.15 C
ATOM 13054 C ARG C 320 139.867 184.914 204.576 1.00 50.15 C
ATOM 13055 O ARG C 320 139.100 184.126 205.136 1.00 50.15 O
ATOM 13056 CB ARG C 320 139.490 185.933 202.322 1.00 50.15 C
ATOM 13057 CG ARG C 320 138.808 184.703 201.765 1.00 50.15 C
ATOM 13058 CD ARG C 320 138.952 184.651 200.257 1.00 50.15 C
ATOM 13059 NE ARG C 320 138.201 185.717 199.603 1.00 50.15 N
ATOM 13060 CZ ARG C 320 138.299 186.011 198.311 1.00 50.15 C
ATOM 13061 NH1 ARG C 320 139.121 185.321 197.534 1.00 50.15 N
ATOM 13062 NH2 ARG C 320 137.578 186.997 197.795 1.00 50.15 N
ATOM 13063 N LEU C 321 141.186 184.746 204.590 1.00 43.80 N
ATOM 13064 CA LEU C 321 141.808 183.662 205.334 1.00 43.80 C
ATOM 13065 C LEU C 321 143.128 184.151 205.905 1.00 43.80 C
ATOM 13066 O LEU C 321 143.830 184.940 205.270 1.00 43.80 O
ATOM 13067 CB LEU C 321 142.040 182.432 204.452 1.00 43.80 C
ATOM 13068 CG LEU C 321 140.786 181.731 203.935 1.00 43.80 C
ATOM 13069 CD1 LEU C 321 141.169 180.590 203.011 1.00 43.80 C
ATOM 13070 CD2 LEU C 321 139.936 181.232 205.089 1.00 43.80 C

ATOM 13071 N VAL C 322 143.462 183.675 207.105 1.00 38.49 N
ATOM 13072 CA VAL C 322 144.720 184.016 207.757 1.00 38.49 C
ATOM 13073 C VAL C 322 145.196 182.802 208.537 1.00 38.49 C
ATOM 13074 O VAL C 322 144.401 181.977 208.990 1.00 38.49 O
ATOM 13075 CB VAL C 322 144.581 185.239 208.692 1.00 38.49 C
ATOM 13076 CG1 VAL C 322 144.240 186.477 207.894 1.00 38.49 C
ATOM 13077 CG2 VAL C 322 143.515 184.978 209.731 1.00 38.49 C
ATOM 13078 N ALA C 323 146.510 182.697 208.694 1.00 36.94 N
ATOM 13079 CA ALA C 323 147.124 181.579 209.390 1.00 36.94 C
ATOM 13080 C ALA C 323 147.689 182.033 210.730 1.00 36.94 C
ATOM 13081 O ALA C 323 147.791 183.226 211.025 1.00 36.94 O
ATOM 13082 CB ALA C 323 148.225 180.943 208.533 1.00 36.94 C
ATOM 13083 N PHE C 324 148.065 181.047 211.543 1.00 36.04 N
ATOM 13084 CA PHE C 324 148.606 181.293 212.879 1.00 36.04 C
ATOM 13085 C PHE C 324 149.591 180.167 213.174 1.00 36.04 C
ATOM 13086 O PHE C 324 149.188 179.092 213.626 1.00 36.04 O
ATOM 13087 CB PHE C 324 147.499 181.347 213.923 1.00 36.04 C
ATOM 13088 CG PHE C 324 146.671 182.595 213.877 1.00 36.04 C
ATOM 13089 CD1 PHE C 324 147.088 183.731 214.533 1.00 36.04 C
ATOM 13090 CD2 PHE C 324 145.477 182.631 213.186 1.00 36.04 C
ATOM 13091 CE1 PHE C 324 146.335 184.882 214.499 1.00 36.04 C
ATOM 13092 CE2 PHE C 324 144.719 183.783 213.152 1.00 36.04 C
ATOM 13093 CZ PHE C 324 145.151 184.909 213.808 1.00 36.04 C
ATOM 13094 N LEU C 325 150.875 180.422 212.931 1.00 34.86 N
ATOM 13095 CA LEU C 325 151.917 179.415 213.110 1.00 34.86 C
ATOM 13096 C LEU C 325 152.557 179.645 214.475 1.00 34.86 C
ATOM 13097 O LEU C 325 153.609 180.265 214.606 1.00 34.86 O
ATOM 13098 CB LEU C 325 152.932 179.492 211.973 1.00 34.86 C
ATOM 13099 CG LEU C 325 153.944 178.359 211.792 1.00 34.86 C
ATOM 13100 CD1 LEU C 325 155.081 178.433 212.792 1.00 34.86 C
ATOM 13101 CD2 LEU C 325 153.248 177.017 211.882 1.00 34.86 C
ATOM 13102 N GLU C 326 151.898 179.127 215.509 1.00 39.13 N
ATOM 13103 CA GLU C 326 152.348 179.349 216.877 1.00 39.13 C
ATOM 13104 C GLU C 326 153.684 178.669 217.138 1.00 39.13 C

ATOM 13105 O GLU C 326 153.750 177.444 217.277 1.00 39.13 O
ATOM 13106 CB GLU C 326 151.304 178.847 217.871 1.00 39.13 C
ATOM 13107 CG GLU C 326 150.017 179.638 217.859 1.00 39.13 C
ATOM 13108 CD GLU C 326 149.004 179.093 218.837 1.00 39.13 C
ATOM 13109 OE1 GLU C 326 149.263 178.023 219.424 1.00 39.13 O
ATOM 13110 OE2 GLU C 326 147.950 179.733 219.020 1.00 39.13 O
ATOM 13111 N ARG C 327 154.748 179.457 217.211 1.00 37.29 N
ATOM 13112 CA ARG C 327 156.081 178.936 217.457 1.00 37.29 C
ATOM 13113 C ARG C 327 156.332 178.900 218.963 1.00 37.29 C
ATOM 13114 O ARG C 327 155.416 179.069 219.772 1.00 37.29 O
ATOM 13115 CB ARG C 327 157.113 179.773 216.707 1.00 37.29 C
ATOM 13116 CG ARG C 327 156.933 179.720 215.203 1.00 37.29 C
ATOM 13117 CD ARG C 327 157.926 180.598 214.466 1.00 37.29 C
ATOM 13118 NE ARG C 327 159.286 180.077 214.529 1.00 37.29 N
ATOM 13119 CZ ARG C 327 160.350 180.729 214.074 1.00 37.29 C
ATOM 13120 NH1 ARG C 327 160.205 181.926 213.526 1.00 37.29 N
ATOM 13121 NH2 ARG C 327 161.556 180.185 214.164 1.00 37.29 N
ATOM 13122 N ALA C 328 157.585 178.676 219.358 1.00 42.62 N
ATOM 13123 CA ALA C 328 157.903 178.558 220.775 1.00 42.62 C
ATOM 13124 C ALA C 328 157.977 179.910 221.469 1.00 42.62 C
ATOM 13125 O ALA C 328 157.753 179.989 222.682 1.00 42.62 O
ATOM 13126 CB ALA C 328 159.223 177.810 220.955 1.00 42.62 C
ATOM 13127 N ASP C 329 158.288 180.979 220.731 1.00 41.41 N
ATOM 13128 CA ASP C 329 158.442 182.290 221.348 1.00 41.41 C
ATOM 13129 C ASP C 329 157.835 183.418 220.519 1.00 41.41 C
ATOM 13130 O ASP C 329 158.240 184.575 220.679 1.00 41.41 O
ATOM 13131 CB ASP C 329 159.921 182.587 221.613 1.00 41.41 C
ATOM 13132 CG ASP C 329 160.760 182.540 220.352 1.00 41.41 C
ATOM 13133 OD1 ASP C 329 160.219 182.181 219.286 1.00 41.41 O
ATOM 13134 OD2 ASP C 329 161.963 182.867 220.425 1.00 41.41 O
ATOM 13135 N SER C 330 156.883 183.125 219.644 1.00 37.31 N
ATOM 13136 CA SER C 330 156.258 184.156 218.823 1.00 37.31 C
ATOM 13137 C SER C 330 155.074 183.532 218.096 1.00 37.31 C
ATOM 13138 O SER C 330 154.840 182.323 218.169 1.00 37.31 O

ATOM 13139 CB SER C 330 157.258 184.766 217.843 1.00 37.31 C
ATOM 13140 OG SER C 330 157.685 183.808 216.893 1.00 37.31 O
ATOM 13141 N VAL C 331 154.325 184.375 217.389 1.00 32.63 N
ATOM 13142 CA VAL C 331 153.173 183.924 216.620 1.00 32.63 C
ATOM 13143 C VAL C 331 153.162 184.631 215.273 1.00 32.63 C
ATOM 13144 O VAL C 331 152.744 185.789 215.172 1.00 32.63 O
ATOM 13145 CB VAL C 331 151.863 184.177 217.385 1.00 32.63 C
ATOM 13146 CG1 VAL C 331 150.674 183.853 216.512 1.00 32.63 C
ATOM 13147 CG2 VAL C 331 151.830 183.351 218.650 1.00 32.63 C
ATOM 13148 N ILE C 332 153.614 183.946 214.233 1.00 33.60 N
ATOM 13149 CA ILE C 332 153.616 184.493 212.884 1.00 33.60 C
ATOM 13150 C ILE C 332 152.250 184.246 212.268 1.00 33.60 C
ATOM 13151 O ILE C 332 151.609 183.221 212.523 1.00 33.60 O
ATOM 13152 CB ILE C 332 154.739 183.871 212.030 1.00 33.60 C
ATOM 13153 CG1 ILE C 332 156.100 184.184 212.643 1.00 33.60 C
ATOM 13154 CG2 ILE C 332 154.683 184.396 210.615 1.00 33.60 C
ATOM 13155 CD1 ILE C 332 157.237 183.420 212.020 1.00 33.60 C
ATOM 13156 N SER C 333 151.790 185.194 211.454 1.00 35.18 N
ATOM 13157 CA SER C 333 150.452 185.099 210.873 1.00 35.18 C
ATOM 13158 C SER C 333 150.440 185.893 209.573 1.00 35.18 C
ATOM 13159 O SER C 333 150.335 187.122 209.598 1.00 35.18 O
ATOM 13160 CB SER C 333 149.405 185.615 211.846 1.00 35.18 C
ATOM 13161 OG SER C 333 149.401 184.834 213.023 1.00 35.18 O
ATOM 13162 N TRP C 334 150.537 185.192 208.451 1.00 37.89 N
ATOM 13163 CA TRP C 334 150.480 185.833 207.147 1.00 37.89 C
ATOM 13164 C TRP C 334 149.027 185.899 206.680 1.00 37.89 C
ATOM 13165 O TRP C 334 148.089 185.633 207.436 1.00 37.89 O
ATOM 13166 CB TRP C 334 151.382 185.098 206.160 1.00 37.89 C
ATOM 13167 CG TRP C 334 150.996 183.677 205.924 1.00 37.89 C
ATOM 13168 CD1 TRP C 334 150.174 183.206 204.948 1.00 37.89 C
ATOM 13169 CD2 TRP C 334 151.402 182.540 206.690 1.00 37.89 C
ATOM 13170 NE1 TRP C 334 150.051 181.844 205.050 1.00 37.89 N
ATOM 13171 CE2 TRP C 334 150.794 181.412 206.115 1.00 37.89 C
ATOM 13172 CE3 TRP C 334 152.222 182.368 207.806 1.00 37.89 C

ATOM 13173 CZ2 TRP C 334 150.978 180.130 206.617 1.00 37.89 C
ATOM 13174 CZ3 TRP C 334 152.405 181.096 208.301 1.00 37.89 C
ATOM 13175 CH2 TRP C 334 151.787 179.993 207.708 1.00 37.89 C
ATOM 13176 N ASP C 335 148.827 186.262 205.420 1.00 41.62 N
ATOM 13177 CA ASP C 335 147.509 186.313 204.807 1.00 41.62 C
ATOM 13178 C ASP C 335 147.492 185.320 203.657 1.00 41.62 C
ATOM 13179 O ASP C 335 148.368 185.364 202.788 1.00 41.62 O
ATOM 13180 CB ASP C 335 147.187 187.728 204.319 1.00 41.62 C
ATOM 13181 CG ASP C 335 145.741 187.888 203.897 1.00 41.62 C
ATOM 13182 OD1 ASP C 335 144.997 186.889 203.922 1.00 41.62 O
ATOM 13183 OD2 ASP C 335 145.346 189.019 203.547 1.00 41.62 O
ATOM 13184 N ILE C 336 146.511 184.413 203.670 1.00 43.65 N
ATOM 13185 CA ILE C 336 146.488 183.313 202.710 1.00 43.65 C
ATOM 13186 C ILE C 336 146.425 183.875 201.299 1.00 43.65 C
ATOM 13187 O ILE C 336 145.462 184.555 200.924 1.00 43.65 O
ATOM 13188 CB ILE C 336 145.320 182.369 202.995 1.00 43.65 C
ATOM 13189 CG1 ILE C 336 145.477 181.748 204.379 1.00 43.65 C
ATOM 13190 CG2 ILE C 336 145.268 181.281 201.950 1.00 43.65 C
ATOM 13191 CD1 ILE C 336 146.731 180.925 204.519 1.00 43.65 C
ATOM 13192 N GLN C 337 147.454 183.593 200.510 1.00 51.01 N
ATOM 13193 CA GLN C 337 147.646 184.251 199.226 1.00 51.01 C
ATOM 13194 C GLN C 337 146.767 183.612 198.152 1.00 51.01 C
ATOM 13195 O GLN C 337 145.839 182.850 198.434 1.00 51.01 O
ATOM 13196 CB GLN C 337 149.121 184.239 198.843 1.00 51.01 C
ATOM 13197 CG GLN C 337 149.987 185.077 199.757 1.00 51.01 C
ATOM 13198 CD GLN C 337 149.572 186.531 199.765 1.00 51.01 C
ATOM 13199 OE1 GLN C 337 149.068 187.038 200.764 1.00 51.01 O
ATOM 13200 NE2 GLN C 337 149.767 187.208 198.644 1.00 51.01 N
ATOM 13201 N ASN C 338 147.069 183.929 196.896 1.00 77.99 N
ATOM 13202 CA ASN C 338 146.148 183.740 195.778 1.00 77.99 C
ATOM 13203 C ASN C 338 146.991 183.585 194.522 1.00 77.99 C
ATOM 13204 O ASN C 338 147.786 184.473 194.200 1.00 77.99 O
ATOM 13205 CB ASN C 338 145.206 184.949 195.719 1.00 77.99 C
ATOM 13206 CG ASN C 338 143.969 184.752 194.839 1.00 77.99 C

ATOM 13207 OD1 ASN C 338 142.919 185.309 195.159 1.00 77.99 O
ATOM 13208 ND2 ASN C 338 144.092 184.025 193.721 1.00 77.99 N
ATOM 13209 N GLU C 339 146.821 182.466 193.822 1.00 85.47 N
ATOM 13210 CA GLU C 339 147.803 182.040 192.829 1.00 85.47 C
ATOM 13211 C GLU C 339 147.883 182.997 191.643 1.00 85.47 C
ATOM 13212 O GLU C 339 146.885 183.591 191.228 1.00 85.47 O
ATOM 13213 CB GLU C 339 147.479 180.629 192.341 1.00 85.47 C
ATOM 13214 CG GLU C 339 147.663 179.555 193.403 1.00 85.47 C
ATOM 13215 CD GLU C 339 147.387 178.158 192.879 1.00 85.47 C
ATOM 13216 OE1 GLU C 339 146.944 178.033 191.718 1.00 85.47 O
ATOM 13217 OE2 GLU C 339 147.614 177.183 193.625 1.00 85.47 O
ATOM 13218 N LYS C 340 149.089 183.132 191.097 1.00102.20 N
ATOM 13219 CA LYS C 340 149.352 184.026 189.980 1.00102.20 C
ATOM 13220 C LYS C 340 148.976 183.357 188.655 1.00102.20 C
ATOM 13221 O LYS C 340 148.504 182.218 188.612 1.00102.20 O
ATOM 13222 CB LYS C 340 150.819 184.446 189.986 1.00102.20 C
ATOM 13223 CG LYS C 340 151.785 183.288 189.810 1.00102.20 C
ATOM 13224 CD LYS C 340 153.223 183.766 189.775 1.00102.20 C
ATOM 13225 CE LYS C 340 153.694 184.206 191.147 1.00102.20 C
ATOM 13226 NZ LYS C 340 155.143 184.542 191.138 1.00102.20 N
ATOM 13227 N ASN C 341 149.178 184.087 187.555 1.00128.75 N
ATOM 13228 CA ASN C 341 148.846 183.547 186.236 1.00128.75 C
ATOM 13229 C ASN C 341 149.962 182.675 185.668 1.00128.75 C
ATOM 13230 O ASN C 341 149.813 181.457 185.534 1.00128.75 O
ATOM 13231 CB ASN C 341 148.548 184.685 185.251 1.00128.75 C
ATOM 13232 CG ASN C 341 147.218 185.367 185.498 1.00128.75 C
ATOM 13233 OD1 ASN C 341 146.264 184.752 185.971 1.00128.75 O
ATOM 13234 ND2 ASN C 341 147.147 186.650 185.120 1.00128.75 N
ATOM 13235 N VAL C 342 151.097 183.295 185.342 1.00125.54 N
ATOM 13236 CA VAL C 342 152.096 182.670 184.482 1.00125.54 C
ATOM 13237 C VAL C 342 153.393 183.470 184.531 1.00125.54 C
ATOM 13238 O VAL C 342 153.385 184.669 184.829 1.00125.54 O
ATOM 13239 CB VAL C 342 151.569 182.553 183.040 1.00125.54 C
ATOM 13240 CG1 VAL C 342 151.401 183.934 182.424 1.00125.54 C

ATOM 13241 CG2 VAL C 342 152.483 181.681 182.196 1.00125.54 C
ATOM 13242 N THR C 343 154.516 182.814 184.233 1.00128.54 N
ATOM 13243 CA THR C 343 155.822 183.457 184.231 1.00128.54 C
ATOM 13244 C THR C 343 156.592 183.078 182.973 1.00128.54 C
ATOM 13245 O THR C 343 156.624 181.908 182.581 1.00128.54 O
ATOM 13246 CB THR C 343 156.632 183.067 185.469 1.00128.54 C
ATOM 13247 OG1 THR C 343 155.915 183.451 186.649 1.00128.54 O
ATOM 13248 CG2 THR C 343 157.984 183.762 185.456 1.00128.54 C
ATOM 13249 N CYS C 344 157.215 184.075 182.350 1.00124.83 N
ATOM 13250 CA CYS C 344 157.978 183.888 181.125 1.00124.83 C
ATOM 13251 C CYS C 344 159.451 183.631 181.444 1.00124.83 C
ATOM 13252 O CYS C 344 159.829 183.354 182.585 1.00124.83 O
ATOM 13253 CB CYS C 344 157.812 185.097 180.207 1.00124.83 C
ATOM 13254 SG CYS C 344 156.170 185.286 179.486 1.00124.83 S
ATOM 13255 N ALA C 345 160.298 183.711 180.419 1.00115.19 N
ATOM 13256 CA ALA C 345 161.730 183.465 180.541 1.00115.19 C
ATOM 13257 C ALA C 345 162.523 184.513 179.775 1.00115.19 C
ATOM 13258 O ALA C 345 163.563 184.213 179.180 1.00115.19 O
ATOM 13259 CB ALA C 345 162.090 182.069 180.035 1.00115.19 C
ATOM 13260 N LEU C 346 162.060 185.760 179.787 1.00112.06 N
ATOM 13261 CA LEU C 346 162.628 186.800 178.941 1.00112.06 C
ATOM 13262 C LEU C 346 163.257 187.897 179.786 1.00112.06 C
ATOM 13263 O LEU C 346 162.706 188.300 180.814 1.00112.06 O
ATOM 13264 CB LEU C 346 161.563 187.410 178.023 1.00112.06 C
ATOM 13265 CG LEU C 346 160.608 188.426 178.654 1.00112.06 C
ATOM 13266 CD1 LEU C 346 159.849 189.180 177.575 1.00112.06 C
ATOM 13267 CD2 LEU C 346 159.649 187.761 179.625 1.00112.06 C
ATOM 13268 N THR C 347 164.413 188.366 179.349 1.00113.60 N
ATOM 13269 CA THR C 347 165.074 189.537 179.916 1.00113.60 C
ATOM 13270 C THR C 347 165.455 190.566 178.862 1.00113.60 C
ATOM 13271 O THR C 347 165.332 191.767 179.115 1.00113.60 O
ATOM 13272 CB THR C 347 166.318 189.105 180.698 1.00113.60 C
ATOM 13273 OG1 THR C 347 167.168 188.331 179.845 1.00113.60 O
ATOM 13274 CG2 THR C 347 165.926 188.281 181.910 1.00113.60 C

ATOM 13275 N PHE C 348 165.905 190.123 177.686 1.00113.78 N
ATOM 13276 CA PHE C 348 166.206 190.985 176.543 1.00113.78 C
ATOM 13277 C PHE C 348 167.227 192.062 176.921 1.00113.78 C
ATOM 13278 O PHE C 348 166.959 193.263 176.895 1.00113.78 O
ATOM 13279 CB PHE C 348 164.920 191.603 175.986 1.00113.78 C
ATOM 13280 CG PHE C 348 164.006 190.605 175.337 1.00113.78 C
ATOM 13281 CD1 PHE C 348 164.477 189.359 174.962 1.00113.78 C
ATOM 13282 CD2 PHE C 348 162.674 190.905 175.117 1.00113.78 C
ATOM 13283 CE1 PHE C 348 163.641 188.436 174.370 1.00113.78 C
ATOM 13284 CE2 PHE C 348 161.832 189.984 174.526 1.00113.78 C
ATOM 13285 CZ PHE C 348 162.317 188.748 174.152 1.00113.78 C
ATOM 13286 N TRP C 349 168.420 191.588 177.272 1.00116.30 N
ATOM 13287 CA TRP C 349 169.484 192.453 177.764 1.00116.30 C
ATOM 13288 C TRP C 349 170.634 192.565 176.770 1.00116.30 C
ATOM 13289 O TRP C 349 171.759 192.886 177.153 1.00116.30 O
ATOM 13290 CB TRP C 349 169.991 191.956 179.118 1.00116.30 C
ATOM 13291 CG TRP C 349 170.561 190.570 179.074 1.00116.30 C
ATOM 13292 CD1 TRP C 349 169.866 189.403 179.151 1.00116.30 C
ATOM 13293 CD2 TRP C 349 171.945 190.206 178.980 1.00116.30 C
ATOM 13294 NE1 TRP C 349 170.722 188.334 179.091 1.00116.30 N
ATOM 13295 CE2 TRP C 349 172.006 188.799 178.989 1.00116.30 C
ATOM 13296 CE3 TRP C 349 173.136 190.930 178.886 1.00116.30 C
ATOM 13297 CZ2 TRP C 349 173.209 188.104 178.903 1.00116.30 C
ATOM 13298 CZ3 TRP C 349 174.328 190.239 178.797 1.00116.30 C
ATOM 13299 CH2 TRP C 349 174.356 188.841 178.808 1.00116.30 C
ATOM 13300 N GLU C 350 170.373 192.336 175.486 1.00119.33 N
ATOM 13301 CA GLU C 350 171.484 192.409 174.550 1.00119.33 C
ATOM 13302 C GLU C 350 170.971 192.496 173.122 1.00119.33 C
ATOM 13303 O GLU C 350 169.952 191.893 172.772 1.00119.33 O
ATOM 13304 CB GLU C 350 172.414 191.201 174.703 1.00119.33 C
ATOM 13305 CG GLU C 350 173.611 191.262 173.788 1.00119.33 C
ATOM 13306 CD GLU C 350 174.449 192.492 174.049 1.00119.33 C
ATOM 13307 OE1 GLU C 350 174.408 193.005 175.187 1.00119.33 O
ATOM 13308 OE2 GLU C 350 175.141 192.953 173.118 1.00119.33 O

```
ATOM  13309  N   ALA C 351     171.698 193.260 172.305  1.00123.35           N
ATOM  13310  CA  ALA C 351     171.461 193.342 170.864  1.00123.35           C
ATOM  13311  C   ALA C 351     172.828 193.397 170.187  1.00123.35           C
ATOM  13312  O   ALA C 351     173.399 194.477 170.015  1.00123.35           O
ATOM  13313  CB  ALA C 351     170.610 194.553 170.503  1.00123.35           C
ATOM  13314  N   SER C 352     173.346 192.232 169.809  1.00117.36           N
ATOM  13315  CA  SER C 352     174.660 192.119 169.186  1.00117.36           C
ATOM  13316  C   SER C 352     174.481 192.028 167.676  1.00117.36           C
ATOM  13317  O   SER C 352     174.026 191.003 167.158  1.00117.36           O
ATOM  13318  CB  SER C 352     175.412 190.904 169.722  1.00117.36           C
ATOM  13319  OG  SER C 352     175.690 191.047 171.103  1.00117.36           O
ATOM  13320  N   GLU C 353     174.841 193.100 166.972  1.00120.29           N
ATOM  13321  CA  GLU C 353     174.821 193.120 165.518  1.00120.29           C
ATOM  13322  C   GLU C 353     176.164 192.730 164.911  1.00120.29           C
ATOM  13323  O   GLU C 353     176.392 192.971 163.721  1.00120.29           O
ATOM  13324  CB  GLU C 353     174.395 194.500 165.011  1.00120.29           C
ATOM  13325  CG  GLU C 353     175.397 195.608 165.283  1.00120.29           C
ATOM  13326  CD  GLU C 353     175.223 196.225 166.655  1.00120.29           C
ATOM  13327  OE1 GLU C 353     174.546 195.609 167.504  1.00120.29           O
ATOM  13328  OE2 GLU C 353     175.762 197.328 166.884  1.00120.29           O
ATOM  13329  N   ARG C 354     177.054 192.130 165.703  1.00114.44           N
ATOM  13330  CA  ARG C 354     178.362 191.707 165.206  1.00114.44           C
ATOM  13331  C   ARG C 354     178.836 190.549 166.080  1.00114.44           C
ATOM  13332  O   ARG C 354     179.316 190.768 167.196  1.00114.44           O
ATOM  13333  CB  ARG C 354     179.355 192.860 165.219  1.00114.44           C
ATOM  13334  CG  ARG C 354     180.749 192.476 164.753  1.00114.44           C
ATOM  13335  CD  ARG C 354     180.752 192.085 163.284  1.00114.44           C
ATOM  13336  NE  ARG C 354     180.441 193.219 162.420  1.00114.44           N
ATOM  13337  CZ  ARG C 354     180.128 193.112 161.133  1.00114.44           C
ATOM  13338  NH1 ARG C 354     180.081 191.920 160.556  1.00114.44           N
ATOM  13339  NH2 ARG C 354     179.861 194.200 160.423  1.00114.44           N
ATOM  13340  N   THR C 355     178.694 189.328 165.569  1.00103.83           N
ATOM  13341  CA  THR C 355     179.151 188.129 166.254  1.00103.83           C
ATOM  13342  C   THR C 355     179.760 187.188 165.223  1.00103.83           C
```

ATOM 13343 O THR C 355 179.892 187.527 164.044 1.00103.83 O
ATOM 13344 CB THR C 355 178.011 187.445 167.015 1.00103.83 C
ATOM 13345 OG1 THR C 355 176.989 187.051 166.093 1.00103.83 O
ATOM 13346 CG2 THR C 355 177.418 188.385 168.056 1.00103.83 C
ATOM 13347 N ILE C 356 180.135 185.994 165.674 1.00 95.38 N
ATOM 13348 CA ILE C 356 180.763 184.989 164.823 1.00 95.38 C
ATOM 13349 C ILE C 356 180.209 183.627 165.212 1.00 95.38 C
ATOM 13350 O ILE C 356 180.279 183.238 166.383 1.00 95.38 O
ATOM 13351 CB ILE C 356 182.296 184.994 164.942 1.00 95.38 C
ATOM 13352 CG1 ILE C 356 182.877 186.284 164.361 1.00 95.38 C
ATOM 13353 CG2 ILE C 356 182.880 183.771 164.266 1.00 95.38 C
ATOM 13354 CD1 ILE C 356 183.024 187.398 165.366 1.00 95.38 C
ATOM 13355 N ARG C 357 179.665 182.903 164.239 1.00 98.87 N
ATOM 13356 CA ARG C 357 178.981 181.635 164.485 1.00 98.87 C
ATOM 13357 C ARG C 357 179.888 180.506 164.006 1.00 98.87 C
ATOM 13358 O ARG C 357 179.782 180.038 162.872 1.00 98.87 O
ATOM 13359 CB ARG C 357 177.635 181.620 163.773 1.00 98.87 C
ATOM 13360 CG ARG C 357 176.738 180.455 164.116 1.00 98.87 C
ATOM 13361 CD ARG C 357 176.969 179.256 163.224 1.00 98.87 C
ATOM 13362 NE ARG C 357 175.916 178.266 163.399 1.00 98.87 N
ATOM 13363 CZ ARG C 357 174.895 178.100 162.564 1.00 98.87 C
ATOM 13364 NH1 ARG C 357 173.970 177.184 162.816 1.00 98.87 N
ATOM 13365 NH2 ARG C 357 174.829 178.818 161.450 1.00 98.87 N
ATOM 13366 N SER C 358 180.790 180.067 164.877 1.00103.51 N
ATOM 13367 CA SER C 358 181.686 178.976 164.529 1.00103.51 C
ATOM 13368 C SER C 358 180.994 177.628 164.722 1.00103.51 C
ATOM 13369 O SER C 358 179.857 177.540 165.192 1.00103.51 O
ATOM 13370 CB SER C 358 182.964 179.046 165.360 1.00103.51 C
ATOM 13371 OG SER C 358 182.689 178.823 166.729 1.00103.51 O
ATOM 13372 N GLU C 359 181.705 176.560 164.353 1.00110.11 N
ATOM 13373 CA GLU C 359 181.146 175.210 164.426 1.00110.11 C
ATOM 13374 C GLU C 359 182.318 174.230 164.461 1.00110.11 C
ATOM 13375 O GLU C 359 182.989 174.041 163.442 1.00110.11 O
ATOM 13376 CB GLU C 359 180.228 174.944 163.243 1.00110.11 C

ATOM 13377 CG GLU C 359 179.422 173.661 163.332 1.00110.11 C
ATOM 13378 CD GLU C 359 180.175 172.451 162.819 1.00110.11 C
ATOM 13379 OE1 GLU C 359 181.047 172.622 161.941 1.00110.11 O
ATOM 13380 OE2 GLU C 359 179.895 171.331 163.293 1.00110.11 O
ATOM 13381 N ALA C 360 182.564 173.620 165.623 1.00115.33 N
ATOM 13382 CA ALA C 360 183.696 172.698 165.704 1.00115.33 C
ATOM 13383 C ALA C 360 183.327 171.293 165.231 1.00115.33 C
ATOM 13384 O ALA C 360 183.700 170.883 164.129 1.00115.33 O
ATOM 13385 CB ALA C 360 184.233 172.666 167.139 1.00115.33 C
ATOM 13386 N GLU C 361 182.583 170.541 166.045 1.00116.84 N
ATOM 13387 CA GLU C 361 182.046 169.264 165.586 1.00116.84 C
ATOM 13388 C GLU C 361 180.561 169.108 165.883 1.00116.84 C
ATOM 13389 O GLU C 361 179.766 168.780 164.996 1.00116.84 O
ATOM 13390 CB GLU C 361 182.818 168.099 166.208 1.00116.84 C
ATOM 13391 CG GLU C 361 182.338 166.733 165.734 1.00116.84 C
ATOM 13392 CD GLU C 361 182.528 166.535 164.241 1.00116.84 C
ATOM 13393 OE1 GLU C 361 183.419 167.191 163.662 1.00116.84 O
ATOM 13394 OE2 GLU C 361 181.786 165.726 163.646 1.00116.84 O
ATOM 13395 N ASP C 362 180.187 169.346 167.142 1.00116.11 N
ATOM 13396 CA ASP C 362 178.887 168.932 167.652 1.00116.11 C
ATOM 13397 C ASP C 362 178.266 170.004 168.539 1.00116.11 C
ATOM 13398 O ASP C 362 177.292 169.719 169.248 1.00116.11 O
ATOM 13399 CB ASP C 362 179.031 167.614 168.434 1.00116.11 C
ATOM 13400 CG ASP C 362 177.711 166.891 168.628 1.00116.11 C
ATOM 13401 OD1 ASP C 362 176.683 167.369 168.110 1.00116.11 O
ATOM 13402 OD2 ASP C 362 177.701 165.845 169.311 1.00116.11 O
ATOM 13403 N SER C 363 178.803 171.219 168.533 1.00109.52 N
ATOM 13404 CA SER C 363 178.293 172.289 169.384 1.00109.52 C
ATOM 13405 C SER C 363 178.779 173.611 168.817 1.00109.52 C
ATOM 13406 O SER C 363 179.989 173.857 168.780 1.00109.52 O
ATOM 13407 CB SER C 363 178.765 172.102 170.823 1.00109.52 C
ATOM 13408 OG SER C 363 180.172 172.233 170.920 1.00109.52 O
ATOM 13409 N TYR C 364 177.848 174.457 168.377 1.00104.01 N
ATOM 13410 CA TYR C 364 178.210 175.739 167.787 1.00104.01 C

ATOM 13411 C TYR C 364 178.829 176.654 168.834 1.00104.01 C
ATOM 13412 O TYR C 364 178.866 176.314 170.020 1.00104.01 O
ATOM 13413 CB TYR C 364 176.990 176.418 167.161 1.00104.01 C
ATOM 13414 CG TYR C 364 176.369 175.660 166.012 1.00104.01 C
ATOM 13415 CD1 TYR C 364 176.952 175.662 164.755 1.00104.01 C
ATOM 13416 CD2 TYR C 364 175.181 174.962 166.180 1.00104.01 C
ATOM 13417 CE1 TYR C 364 176.379 174.978 163.699 1.00104.01 C
ATOM 13418 CE2 TYR C 364 174.601 174.274 165.134 1.00104.01 C
ATOM 13419 CZ TYR C 364 175.204 174.285 163.895 1.00104.01 C
ATOM 13420 OH TYR C 364 174.632 173.601 162.848 1.00104.01 O
ATOM 13421 N HIS C 365 179.308 177.819 168.407 1.00101.87 N
ATOM 13422 CA HIS C 365 179.870 178.808 169.313 1.00101.87 C
ATOM 13423 C HIS C 365 179.461 180.196 168.850 1.00101.87 C
ATOM 13424 O HIS C 365 179.293 180.445 167.654 1.00101.87 O
ATOM 13425 CB HIS C 365 181.397 178.719 169.383 1.00101.87 C
ATOM 13426 CG HIS C 365 181.904 177.430 169.947 1.00101.87 C
ATOM 13427 ND1 HIS C 365 181.888 177.150 171.296 1.00101.87 N
ATOM 13428 CD2 HIS C 365 182.439 176.343 169.343 1.00101.87 C
ATOM 13429 CE1 HIS C 365 182.397 175.948 171.499 1.00101.87 C
ATOM 13430 NE2 HIS C 365 182.737 175.437 170.330 1.00101.87 N
ATOM 13431 N PHE C 366 179.312 181.103 169.813 1.00 96.42 N
ATOM 13432 CA PHE C 366 178.893 182.477 169.549 1.00 96.42 C
ATOM 13433 C PHE C 366 179.934 183.393 170.180 1.00 96.42 C
ATOM 13434 O PHE C 366 179.777 183.833 171.321 1.00 96.42 O
ATOM 13435 CB PHE C 366 177.500 182.730 170.099 1.00 96.42 C
ATOM 13436 CG PHE C 366 176.437 181.907 169.439 1.00 96.42 C
ATOM 13437 CD1 PHE C 366 175.885 182.302 168.236 1.00 96.42 C
ATOM 13438 CD2 PHE C 366 176.000 180.727 170.015 1.00 96.42 C
ATOM 13439 CE1 PHE C 366 174.910 181.543 167.626 1.00 96.42 C
ATOM 13440 CE2 PHE C 366 175.025 179.965 169.408 1.00 96.42 C
ATOM 13441 CZ PHE C 366 174.479 180.373 168.213 1.00 96.42 C
ATOM 13442 N SER C 367 180.996 183.682 169.430 1.00 96.16 N
ATOM 13443 CA SER C 367 182.096 184.509 169.923 1.00 96.16 C
ATOM 13444 C SER C 367 181.730 185.976 169.724 1.00 96.16 C

ATOM 13445 O SER C 367 182.169 186.643 168.786 1.00 96.16 O
ATOM 13446 CB SER C 367 183.395 184.150 169.215 1.00 96.16 C
ATOM 13447 OG SER C 367 183.324 184.469 167.837 1.00 96.16 O
ATOM 13448 N SER C 368 180.897 186.478 170.632 1.00107.74 N
ATOM 13449 CA SER C 368 180.498 187.877 170.584 1.00107.74 C
ATOM 13450 C SER C 368 181.712 188.784 170.746 1.00107.74 C
ATOM 13451 O SER C 368 182.669 188.460 171.454 1.00107.74 O
ATOM 13452 CB SER C 368 179.465 188.173 171.672 1.00107.74 C
ATOM 13453 OG SER C 368 180.022 188.005 172.964 1.00107.74 O
ATOM 13454 N ALA C 369 181.664 189.934 170.078 1.00110.19 N
ATOM 13455 CA ALA C 369 182.776 190.876 170.057 1.00110.19 C
ATOM 13456 C ALA C 369 182.486 192.145 170.840 1.00110.19 C
ATOM 13457 O ALA C 369 183.268 192.523 171.718 1.00110.19 O
ATOM 13458 CB ALA C 369 183.134 191.232 168.607 1.00110.19 C
ATOM 13459 N LYS C 370 181.375 192.819 170.541 1.00117.58 N
ATOM 13460 CA LYS C 370 181.028 194.028 171.278 1.00117.58 C
ATOM 13461 C LYS C 370 180.724 193.714 172.737 1.00117.58 C
ATOM 13462 O LYS C 370 180.887 194.577 173.607 1.00117.58 O
ATOM 13463 CB LYS C 370 179.845 194.719 170.602 1.00117.58 C
ATOM 13464 CG LYS C 370 180.183 195.232 169.209 1.00117.58 C
ATOM 13465 CD LYS C 370 179.004 195.909 168.532 1.00117.58 C
ATOM 13466 CE LYS C 370 179.382 196.362 167.129 1.00117.58 C
ATOM 13467 NZ LYS C 370 178.251 197.003 166.408 1.00117.58 N
ATOM 13468 N MET C 371 180.279 192.494 173.019 1.00115.98 N
ATOM 13469 CA MET C 371 180.172 191.983 174.375 1.00115.98 C
ATOM 13470 C MET C 371 181.437 191.202 174.724 1.00115.98 C
ATOM 13471 O MET C 371 182.443 191.246 174.011 1.00115.98 O
ATOM 13472 CB MET C 371 178.925 191.116 174.521 1.00115.98 C
ATOM 13473 CG MET C 371 177.628 191.879 174.414 1.00115.98 C
ATOM 13474 SD MET C 371 177.477 193.118 175.711 1.00115.98 S
ATOM 13475 CE MET C 371 177.297 192.072 177.154 1.00115.98 C
ATOM 13476 N THR C 372 181.394 190.473 175.834 1.00110.90 N
ATOM 13477 CA THR C 372 182.455 189.560 176.242 1.00110.90 C
ATOM 13478 C THR C 372 181.868 188.189 176.542 1.00110.90 C

ATOM 13479 O THR C 372 182.179 187.553 177.551 1.00110.90 O
ATOM 13480 CB THR C 372 183.208 190.102 177.451 1.00110.90 C
ATOM 13481 OG1 THR C 372 182.303 190.248 178.552 1.00110.90 O
ATOM 13482 CG2 THR C 372 183.826 191.452 177.127 1.00110.90 C
ATOM 13483 N ALA C 373 181.000 187.717 175.653 1.00102.73 N
ATOM 13484 CA ALA C 373 180.248 186.489 175.860 1.00102.73 C
ATOM 13485 C ALA C 373 180.736 185.391 174.926 1.00102.73 C
ATOM 13486 O ALA C 373 181.092 185.651 173.773 1.00102.73 O
ATOM 13487 CB ALA C 373 178.751 186.722 175.644 1.00102.73 C
ATOM 13488 N THR C 374 180.747 184.161 175.437 1.00 97.53 N
ATOM 13489 CA THR C 374 181.065 182.974 174.653 1.00 97.53 C
ATOM 13490 C THR C 374 180.110 181.872 175.084 1.00 97.53 C
ATOM 13491 O THR C 374 180.109 181.473 176.252 1.00 97.53 O
ATOM 13492 CB THR C 374 182.522 182.543 174.850 1.00 97.53 C
ATOM 13493 OG1 THR C 374 182.751 182.241 176.231 1.00 97.53 O
ATOM 13494 CG2 THR C 374 183.469 183.650 174.415 1.00 97.53 C
ATOM 13495 N PHE C 375 179.304 181.384 174.148 1.00 96.08 N
ATOM 13496 CA PHE C 375 178.162 180.531 174.450 1.00 96.08 C
ATOM 13497 C PHE C 375 178.380 179.141 173.852 1.00 96.08 C
ATOM 13498 O PHE C 375 179.463 178.814 173.360 1.00 96.08 O
ATOM 13499 CB PHE C 375 176.874 181.171 173.929 1.00 96.08 C
ATOM 13500 CG PHE C 375 176.496 182.445 174.632 1.00 96.08 C
ATOM 13501 CD1 PHE C 375 177.043 182.769 175.862 1.00 96.08 C
ATOM 13502 CD2 PHE C 375 175.600 183.326 174.054 1.00 96.08 C
ATOM 13503 CE1 PHE C 375 176.700 183.943 176.502 1.00 96.08 C
ATOM 13504 CE2 PHE C 375 175.252 184.501 174.691 1.00 96.08 C
ATOM 13505 CZ PHE C 375 175.803 184.809 175.916 1.00 96.08 C
ATOM 13506 N LEU C 376 177.336 178.313 173.907 1.00100.43 N
ATOM 13507 CA LEU C 376 177.427 176.955 173.386 1.00100.43 C
ATOM 13508 C LEU C 376 176.049 176.315 173.254 1.00100.43 C
ATOM 13509 O LEU C 376 175.253 176.344 174.198 1.00100.43 O
ATOM 13510 CB LEU C 376 178.318 176.105 174.291 1.00100.43 C
ATOM 13511 CG LEU C 376 178.635 174.692 173.809 1.00100.43 C
ATOM 13512 CD1 LEU C 376 179.462 174.757 172.543 1.00100.43 C

ATOM 13513 CD2 LEU C 376 179.358 173.903 174.887 1.00100.43 C
ATOM 13514 N SER C 377 175.759 175.737 172.093 1.00104.87 N
ATOM 13515 CA SER C 377 174.523 175.006 171.841 1.00104.87 C
ATOM 13516 C SER C 377 174.863 173.593 171.373 1.00104.87 C
ATOM 13517 O SER C 377 176.032 173.218 171.265 1.00104.87 O
ATOM 13518 CB SER C 377 173.651 175.737 170.817 1.00104.87 C
ATOM 13519 OG SER C 377 172.454 175.021 170.571 1.00104.87 O
ATOM 13520 N LYS C 378 173.831 172.801 171.087 1.00106.27 N
ATOM 13521 CA LYS C 378 173.995 171.363 170.879 1.00106.27 C
ATOM 13522 C LYS C 378 173.367 170.914 169.562 1.00106.27 C
ATOM 13523 O LYS C 378 172.636 169.923 169.500 1.00106.27 O
ATOM 13524 CB LYS C 378 173.405 170.576 172.046 1.00106.27 C
ATOM 13525 CG LYS C 378 174.398 170.243 173.156 1.00106.27 C
ATOM 13526 CD LYS C 378 174.940 171.496 173.824 1.00106.27 C
ATOM 13527 CE LYS C 378 176.033 171.166 174.824 1.00106.27 C
ATOM 13528 NZ LYS C 378 175.529 170.298 175.922 1.00106.27 N
ATOM 13529 N LYS C 379 173.638 171.649 168.485 1.00111.87 N
ATOM 13530 CA LYS C 379 173.354 171.262 167.103 1.00111.87 C
ATOM 13531 C LYS C 379 171.873 171.223 166.749 1.00111.87 C
ATOM 13532 O LYS C 379 171.545 171.005 165.576 1.00111.87 O
ATOM 13533 CB LYS C 379 173.930 169.883 166.753 1.00111.87 C
ATOM 13534 CG LYS C 379 175.418 169.746 166.943 1.00111.87 C
ATOM 13535 CD LYS C 379 176.197 170.525 165.911 1.00111.87 C
ATOM 13536 CE LYS C 379 176.557 171.895 166.442 1.00111.87 C
ATOM 13537 NZ LYS C 379 177.466 172.610 165.515 1.00111.87 N
ATOM 13538 N GLN C 380 170.967 171.423 167.702 1.00105.33 N
ATOM 13539 CA GLN C 380 169.545 171.199 167.475 1.00105.33 C
ATOM 13540 C GLN C 380 168.780 172.460 167.837 1.00105.33 C
ATOM 13541 O GLN C 380 168.860 172.932 168.975 1.00105.33 O
ATOM 13542 CB GLN C 380 169.043 170.005 168.292 1.00105.33 C
ATOM 13543 CG GLN C 380 169.645 168.678 167.855 1.00105.33 C
ATOM 13544 CD GLN C 380 169.190 167.512 168.710 1.00105.33 C
ATOM 13545 OE1 GLN C 380 168.473 167.689 169.694 1.00105.33 O
ATOM 13546 NE2 GLN C 380 169.607 166.309 168.335 1.00105.33 N

ATOM 13547 N GLU C 381 168.047 173.002 166.869 1.00110.17 N
ATOM 13548 CA GLU C 381 167.261 174.199 167.109 1.00110.17 C
ATOM 13549 C GLU C 381 166.167 173.919 168.133 1.00110.17 C
ATOM 13550 O GLU C 381 165.848 172.769 168.446 1.00110.17 O
ATOM 13551 CB GLU C 381 166.641 174.704 165.808 1.00110.17 C
ATOM 13552 CG GLU C 381 167.650 175.210 164.797 1.00110.17 C
ATOM 13553 CD GLU C 381 167.000 175.666 163.508 1.00110.17 C
ATOM 13554 OE1 GLU C 381 165.775 175.472 163.362 1.00110.17 O
ATOM 13555 OE2 GLU C 381 167.713 176.217 162.643 1.00110.17 O
ATOM 13556 N VAL C 382 165.584 174.991 168.652 1.00102.94 N
ATOM 13557 CA VAL C 382 164.533 174.888 169.654 1.00102.94 C
ATOM 13558 C VAL C 382 163.187 174.816 168.949 1.00102.94 C
ATOM 13559 O VAL C 382 162.895 175.623 168.059 1.00102.94 O
ATOM 13560 CB VAL C 382 164.587 176.070 170.635 1.00102.94 C
ATOM 13561 CG1 VAL C 382 163.422 176.004 171.602 1.00102.94 C
ATOM 13562 CG2 VAL C 382 165.911 176.075 171.382 1.00102.94 C
ATOM 13563 N ASN C 383 162.382 173.828 169.333 1.00106.60 N
ATOM 13564 CA ASN C 383 161.047 173.639 168.776 1.00106.60 C
ATOM 13565 C ASN C 383 160.218 174.906 168.955 1.00106.60 C
ATOM 13566 O ASN C 383 160.072 175.407 170.074 1.00106.60 O
ATOM 13567 CB ASN C 383 160.378 172.466 169.483 1.00106.60 C
ATOM 13568 CG ASN C 383 159.377 171.732 168.615 1.00106.60 C
ATOM 13569 OD1 ASN C 383 158.972 170.629 168.979 1.00106.60 O
ATOM 13570 ND2 ASN C 383 158.991 172.327 167.466 1.00106.60 N
ATOM 13571 N MET C 384 159.671 175.424 167.858 1.00107.65 N
ATOM 13572 CA MET C 384 158.922 176.675 167.899 1.00107.65 C
ATOM 13573 C MET C 384 157.459 176.492 168.282 1.00107.65 C
ATOM 13574 O MET C 384 156.677 177.436 168.126 1.00107.65 O
ATOM 13575 CB MET C 384 159.008 177.388 166.550 1.00107.65 C
ATOM 13576 CG MET C 384 160.396 177.876 166.210 1.00107.65 C
ATOM 13577 SD MET C 384 161.017 179.055 167.423 1.00107.65 S
ATOM 13578 CE MET C 384 159.944 180.456 167.118 1.00107.65 C
ATOM 13579 N SER C 385 157.069 175.316 168.768 1.00114.65 N
ATOM 13580 CA SER C 385 155.701 175.051 169.203 1.00114.65 C

ATOM 13581 C SER C 385 155.598 175.019 170.725 1.00114.65 C
ATOM 13582 O SER C 385 154.831 174.240 171.295 1.00114.65 O
ATOM 13583 CB SER C 385 155.182 173.745 168.607 1.00114.65 C
ATOM 13584 OG SER C 385 155.895 172.625 169.103 1.00114.65 O
ATOM 13585 N ASP C 386 156.369 175.867 171.398 1.00122.41 N
ATOM 13586 CA ASP C 386 156.371 175.951 172.852 1.00122.41 C
ATOM 13587 C ASP C 386 155.603 177.193 173.283 1.00122.41 C
ATOM 13588 O ASP C 386 155.846 178.290 172.768 1.00122.41 O
ATOM 13589 CB ASP C 386 157.801 175.988 173.396 1.00122.41 C
ATOM 13590 CG ASP C 386 157.852 175.899 174.907 1.00122.41 C
ATOM 13591 OD1 ASP C 386 157.602 174.801 175.444 1.00122.41 O
ATOM 13592 OD2 ASP C 386 158.147 176.923 175.557 1.00122.41 O
ATOM 13593 N SER C 387 154.676 177.015 174.228 1.00125.35 N
ATOM 13594 CA SER C 387 153.828 178.117 174.664 1.00125.35 C
ATOM 13595 C SER C 387 154.610 179.202 175.392 1.00125.35 C
ATOM 13596 O SER C 387 154.153 180.349 175.439 1.00125.35 O
ATOM 13597 CB SER C 387 152.706 177.594 175.564 1.00125.35 C
ATOM 13598 OG SER C 387 151.881 178.652 176.021 1.00125.35 O
ATOM 13599 N ALA C 388 155.774 178.872 175.954 1.00126.21 N
ATOM 13600 CA ALA C 388 156.583 179.865 176.650 1.00126.21 C
ATOM 13601 C ALA C 388 157.217 180.879 175.707 1.00126.21 C
ATOM 13602 O ALA C 388 157.786 181.867 176.183 1.00126.21 O
ATOM 13603 CB ALA C 388 157.672 179.175 177.472 1.00126.21 C
ATOM 13604 N LEU C 389 157.137 180.661 174.396 1.00125.50 N
ATOM 13605 CA LEU C 389 157.700 181.582 173.420 1.00125.50 C
ATOM 13606 C LEU C 389 156.713 182.647 172.964 1.00125.50 C
ATOM 13607 O LEU C 389 157.124 183.592 172.282 1.00125.50 O
ATOM 13608 CB LEU C 389 158.207 180.808 172.199 1.00125.50 C
ATOM 13609 CG LEU C 389 159.379 179.855 172.435 1.00125.50 C
ATOM 13610 CD1 LEU C 389 159.669 179.053 171.177 1.00125.50 C
ATOM 13611 CD2 LEU C 389 160.613 180.618 172.883 1.00125.50 C
ATOM 13612 N ASP C 390 155.431 182.513 173.319 1.00124.17 N
ATOM 13613 CA ASP C 390 154.425 183.478 172.883 1.00124.17 C
ATOM 13614 C ASP C 390 154.766 184.882 173.364 1.00124.17 C

ATOM 13615 O ASP C 390 154.695 185.850 172.599 1.00124.17 O
ATOM 13616 CB ASP C 390 153.046 183.058 173.389 1.00124.17 C
ATOM 13617 CG ASP C 390 152.543 181.794 172.724 1.00124.17 C
ATOM 13618 OD1 ASP C 390 152.916 181.544 171.559 1.00124.17 O
ATOM 13619 OD2 ASP C 390 151.774 181.049 173.367 1.00124.17 O
ATOM 13620 N CYS C 391 155.141 185.011 174.633 1.00127.21 N
ATOM 13621 CA CYS C 391 155.588 186.283 175.180 1.00127.21 C
ATOM 13622 C CYS C 391 157.016 186.632 174.782 1.00127.21 C
ATOM 13623 O CYS C 391 157.528 187.666 175.225 1.00127.21 O
ATOM 13624 CB CYS C 391 155.466 186.263 176.705 1.00127.21 C
ATOM 13625 SG CYS C 391 156.490 185.010 177.502 1.00127.21 S
ATOM 13626 N VAL C 392 157.665 185.806 173.967 1.00122.60 N
ATOM 13627 CA VAL C 392 159.061 185.989 173.596 1.00122.60 C
ATOM 13628 C VAL C 392 159.232 186.076 172.083 1.00122.60 C
ATOM 13629 O VAL C 392 159.915 186.968 171.578 1.00122.60 O
ATOM 13630 CB VAL C 392 159.937 184.862 174.187 1.00122.60 C
ATOM 13631 CG1 VAL C 392 161.380 185.022 173.738 1.00122.60 C
ATOM 13632 CG2 VAL C 392 159.836 184.848 175.705 1.00122.60 C
ATOM 13633 N ARG C 393 158.618 185.149 171.342 1.00120.69 N
ATOM 13634 CA ARG C 393 158.857 185.076 169.903 1.00120.69 C
ATOM 13635 C ARG C 393 158.305 186.291 169.170 1.00120.69 C
ATOM 13636 O ARG C 393 158.882 186.714 168.162 1.00120.69 O
ATOM 13637 CB ARG C 393 158.254 183.795 169.326 1.00120.69 C
ATOM 13638 CG ARG C 393 156.738 183.748 169.351 1.00120.69 C
ATOM 13639 CD ARG C 393 156.222 182.440 168.782 1.00120.69 C
ATOM 13640 NE ARG C 393 156.516 182.317 167.358 1.00120.69 N
ATOM 13641 CZ ARG C 393 155.766 182.843 166.396 1.00120.69 C
ATOM 13642 NH1 ARG C 393 156.105 182.683 165.124 1.00120.69 N
ATOM 13643 NH2 ARG C 393 154.677 183.531 166.706 1.00120.69 N
ATOM 13644 N ASP C 394 157.191 186.856 169.643 1.00121.30 N
ATOM 13645 CA ASP C 394 156.640 188.038 168.990 1.00121.30 C
ATOM 13646 C ASP C 394 157.612 189.208 169.043 1.00121.30 C
ATOM 13647 O ASP C 394 157.665 190.014 168.107 1.00121.30 O
ATOM 13648 CB ASP C 394 155.305 188.419 169.627 1.00121.30 C

ATOM 13649 CG ASP C 394 154.204 187.430 169.301 1.00121.30 C
ATOM 13650 OD1 ASP C 394 154.276 186.796 168.227 1.00121.30 O
ATOM 13651 OD2 ASP C 394 153.264 187.290 170.112 1.00121.30 O
ATOM 13652 N GLU C 395 158.389 189.315 170.117 1.00120.41 N
ATOM 13653 CA GLU C 395 159.478 190.277 170.182 1.00120.41 C
ATOM 13654 C GLU C 395 160.754 189.751 169.541 1.00120.41 C
ATOM 13655 O GLU C 395 161.671 190.536 169.277 1.00120.41 O
ATOM 13656 CB GLU C 395 159.744 190.672 171.639 1.00120.41 C
ATOM 13657 CG GLU C 395 160.824 191.721 171.815 1.00120.41 C
ATOM 13658 CD GLU C 395 160.475 193.027 171.134 1.00120.41 C
ATOM 13659 OE1 GLU C 395 159.270 193.295 170.944 1.00120.41 O
ATOM 13660 OE2 GLU C 395 161.405 193.784 170.788 1.00120.41 O
ATOM 13661 N ALA C 396 160.824 188.444 169.275 1.00119.41 N
ATOM 13662 CA ALA C 396 161.996 187.876 168.617 1.00119.41 C
ATOM 13663 C ALA C 396 162.189 188.464 167.225 1.00119.41 C
ATOM 13664 O ALA C 396 163.324 188.653 166.774 1.00119.41 O
ATOM 13665 CB ALA C 396 161.865 186.355 168.543 1.00119.41 C
ATOM 13666 N ILE C 397 161.089 188.758 166.530 1.00117.03 N
ATOM 13667 CA ILE C 397 161.177 189.316 165.186 1.00117.03 C
ATOM 13668 C ILE C 397 161.387 190.826 165.205 1.00117.03 C
ATOM 13669 O ILE C 397 161.868 191.393 164.215 1.00117.03 O
ATOM 13670 CB ILE C 397 159.912 188.951 164.390 1.00117.03 C
ATOM 13671 CG1 ILE C 397 159.772 187.431 164.289 1.00117.03 C
ATOM 13672 CG2 ILE C 397 159.945 189.558 162.997 1.00117.03 C
ATOM 13673 CD1 ILE C 397 158.437 186.979 163.745 1.00117.03 C
ATOM 13674 N ASN C 398 161.060 191.492 166.313 1.00118.68 N
ATOM 13675 CA ASN C 398 161.082 192.951 166.342 1.00118.68 C
ATOM 13676 C ASN C 398 162.505 193.491 166.259 1.00118.68 C
ATOM 13677 O ASN C 398 162.850 194.226 165.327 1.00118.68 O
ATOM 13678 CB ASN C 398 160.389 193.457 167.609 1.00118.68 C
ATOM 13679 CG ASN C 398 158.892 193.216 167.591 1.00118.68 C
ATOM 13680 OD1 ASN C 398 158.237 193.383 166.563 1.00118.68 O
ATOM 13681 ND2 ASN C 398 158.342 192.829 168.736 1.00118.68 N
ATOM 13682 N LYS C 399 163.349 193.132 167.228 1.00116.62 N

ATOM 13683 CA LYS C 399 164.646 193.790 167.358 1.00116.62 C
ATOM 13684 C LYS C 399 165.596 193.435 166.220 1.00116.62 C
ATOM 13685 O LYS C 399 166.375 194.289 165.782 1.00116.62 O
ATOM 13686 CB LYS C 399 165.280 193.431 168.701 1.00116.62 C
ATOM 13687 CG LYS C 399 164.553 194.002 169.908 1.00116.62 C
ATOM 13688 CD LYS C 399 165.268 193.632 171.197 1.00116.62 C
ATOM 13689 CE LYS C 399 164.546 194.181 172.415 1.00116.62 C
ATOM 13690 NZ LYS C 399 165.245 193.808 173.676 1.00116.62 N
ATOM 13691 N LEU C 400 165.551 192.194 165.732 1.00117.41 N
ATOM 13692 CA LEU C 400 166.532 191.736 164.751 1.00117.41 C
ATOM 13693 C LEU C 400 166.427 192.522 163.448 1.00117.41 C
ATOM 13694 O LEU C 400 167.417 193.082 162.965 1.00117.41 O
ATOM 13695 CB LEU C 400 166.366 190.237 164.505 1.00117.41 C
ATOM 13696 CG LEU C 400 167.052 189.336 165.534 1.00117.41 C
ATOM 13697 CD1 LEU C 400 166.366 189.427 166.885 1.00117.41 C
ATOM 13698 CD2 LEU C 400 167.088 187.896 165.049 1.00117.41 C
ATOM 13699 N GLN C 401 165.230 192.566 162.856 1.00116.63 N
ATOM 13700 CA GLN C 401 165.025 193.417 161.687 1.00116.63 C
ATOM 13701 C GLN C 401 165.313 194.876 162.012 1.00116.63 C
ATOM 13702 O GLN C 401 165.767 195.630 161.144 1.00116.63 O
ATOM 13703 CB GLN C 401 163.601 193.257 161.159 1.00116.63 C
ATOM 13704 CG GLN C 401 163.305 191.879 160.592 1.00116.63 C
ATOM 13705 CD GLN C 401 161.882 191.747 160.089 1.00116.63 C
ATOM 13706 OE1 GLN C 401 161.082 192.674 160.208 1.00116.63 O
ATOM 13707 NE2 GLN C 401 161.558 190.589 159.526 1.00116.63 N
ATOM 13708 N GLN C 402 165.055 195.289 163.254 1.00118.89 N
ATOM 13709 CA GLN C 402 165.477 196.609 163.706 1.00118.89 C
ATOM 13710 C GLN C 402 166.997 196.709 163.744 1.00118.89 C
ATOM 13711 O GLN C 402 167.578 197.697 163.280 1.00118.89 O
ATOM 13712 CB GLN C 402 164.880 196.896 165.083 1.00118.89 C
ATOM 13713 CG GLN C 402 165.190 198.273 165.634 1.00118.89 C
ATOM 13714 CD GLN C 402 164.540 198.506 166.983 1.00118.89 C
ATOM 13715 OE1 GLN C 402 163.882 197.619 167.527 1.00118.89 O
ATOM 13716 NE2 GLN C 402 164.724 199.701 167.532 1.00118.89 N

ATOM 13717 N ILE C 403 167.659 195.689 164.297 1.00122.36 N
ATOM 13718 CA ILE C 403 169.116 195.704 164.365 1.00122.36 C
ATOM 13719 C ILE C 403 169.728 195.388 163.008 1.00122.36 C
ATOM 13720 O ILE C 403 170.783 195.931 162.656 1.00122.36 O
ATOM 13721 CB ILE C 403 169.612 194.730 165.448 1.00122.36 C
ATOM 13722 CG1 ILE C 403 169.075 195.141 166.819 1.00122.36 C
ATOM 13723 CG2 ILE C 403 171.127 194.692 165.469 1.00122.36 C
ATOM 13724 CD1 ILE C 403 169.532 196.513 167.262 1.00122.36 C
ATOM 13725 N PHE C 404 169.096 194.508 162.228 1.00124.33 N
ATOM 13726 CA PHE C 404 169.558 194.269 160.864 1.00124.33 C
ATOM 13727 C PHE C 404 169.477 195.541 160.035 1.00124.33 C
ATOM 13728 O PHE C 404 170.432 195.912 159.343 1.00124.33 O
ATOM 13729 CB PHE C 404 168.736 193.160 160.208 1.00124.33 C
ATOM 13730 CG PHE C 404 169.116 192.898 158.779 1.00124.33 C
ATOM 13731 CD1 PHE C 404 170.255 192.175 158.471 1.00124.33 C
ATOM 13732 CD2 PHE C 404 168.345 193.395 157.743 1.00124.33 C
ATOM 13733 CE1 PHE C 404 170.609 191.941 157.155 1.00124.33 C
ATOM 13734 CE2 PHE C 404 168.695 193.166 156.428 1.00124.33 C
ATOM 13735 CZ PHE C 404 169.827 192.438 156.134 1.00124.33 C
ATOM 13736 N ASN C 405 168.334 196.221 160.090 1.00125.82 N
ATOM 13737 CA ASN C 405 168.149 197.467 159.366 1.00125.82 C
ATOM 13738 C ASN C 405 168.776 198.651 160.093 1.00125.82 C
ATOM 13739 O ASN C 405 168.748 199.771 159.572 1.00125.82 O
ATOM 13740 CB ASN C 405 166.655 197.706 159.132 1.00125.82 C
ATOM 13741 CG ASN C 405 166.392 198.730 158.054 1.00125.82 C
ATOM 13742 OD1 ASN C 405 167.328 199.249 157.447 1.00125.82 O
ATOM 13743 ND2 ASN C 405 165.109 199.022 157.808 1.00125.82 N
ATOM 13744 N THR C 406 169.329 198.430 161.287 1.00125.99 N
ATOM 13745 CA THR C 406 170.112 199.471 161.942 1.00125.99 C
ATOM 13746 C THR C 406 171.294 199.886 161.075 1.00125.99 C
ATOM 13747 O THR C 406 171.378 201.035 160.628 1.00125.99 O
ATOM 13748 CB THR C 406 170.591 198.987 163.313 1.00125.99 C
ATOM 13749 OG1 THR C 406 169.461 198.706 164.148 1.00125.99 O
ATOM 13750 CG2 THR C 406 171.460 200.041 163.980 1.00125.99 C

ATOM 13751 N SER C 407 172.206 198.950 160.800 1.00129.57 N
ATOM 13752 CA SER C 407 173.414 199.244 160.042 1.00129.57 C
ATOM 13753 C SER C 407 173.528 198.482 158.730 1.00129.57 C
ATOM 13754 O SER C 407 174.593 198.525 158.105 1.00129.57 O
ATOM 13755 CB SER C 407 174.663 198.955 160.888 1.00129.57 C
ATOM 13756 OG SER C 407 175.843 199.176 160.136 1.00129.57 O
ATOM 13757 N TYR C 408 172.481 197.782 158.299 1.00129.06 N
ATOM 13758 CA TYR C 408 172.505 196.999 157.066 1.00129.06 C
ATOM 13759 C TYR C 408 171.181 197.227 156.340 1.00129.06 C
ATOM 13760 O TYR C 408 170.179 196.568 156.628 1.00129.06 O
ATOM 13761 CB TYR C 408 172.739 195.524 157.361 1.00129.06 C
ATOM 13762 CG TYR C 408 174.032 195.256 158.090 1.00129.06 C
ATOM 13763 CD1 TYR C 408 175.253 195.295 157.429 1.00129.06 C
ATOM 13764 CD2 TYR C 408 174.035 194.944 159.445 1.00129.06 C
ATOM 13765 CE1 TYR C 408 176.435 195.043 158.098 1.00129.06 C
ATOM 13766 CE2 TYR C 408 175.212 194.695 160.120 1.00129.06 C
ATOM 13767 CZ TYR C 408 176.411 194.752 159.440 1.00129.06 C
ATOM 13768 OH TYR C 408 177.589 194.505 160.106 1.00129.06 O
ATOM 13769 N ASN C 409 171.181 198.175 155.404 1.00131.34 N
ATOM 13770 CA ASN C 409 169.972 198.489 154.650 1.00131.34 C
ATOM 13771 C ASN C 409 169.760 197.515 153.494 1.00131.34 C
ATOM 13772 O ASN C 409 168.785 196.755 153.480 1.00131.34 O
ATOM 13773 CB ASN C 409 170.046 199.942 154.168 1.00131.34 C
ATOM 13774 CG ASN C 409 171.394 200.284 153.556 1.00131.34 C
ATOM 13775 OD1 ASN C 409 172.248 199.412 153.389 1.00131.34 O
ATOM 13776 ND2 ASN C 409 171.598 201.554 153.237 1.00131.34 N
ATOM 13777 N GLN C 410 170.660 197.525 152.513 1.00129.63 N
ATOM 13778 CA GLN C 410 170.651 196.485 151.491 1.00129.63 C
ATOM 13779 C GLN C 410 172.059 196.045 151.110 1.00129.63 C
ATOM 13780 O GLN C 410 172.201 195.264 150.159 1.00129.63 O
ATOM 13781 CB GLN C 410 169.885 196.950 150.243 1.00129.63 C
ATOM 13782 CG GLN C 410 170.533 198.093 149.488 1.00129.63 C
ATOM 13783 CD GLN C 410 170.104 199.449 150.011 1.00129.63 C
ATOM 13784 OE1 GLN C 410 169.586 199.563 151.121 1.00129.63 O

ATOM 13785 NE2 GLN C 410 170.303 200.484 149.204 1.00129.63 N
ATOM 13786 N THR C 411 173.099 196.521 151.798 1.00126.86 N
ATOM 13787 CA THR C 411 174.454 196.057 151.523 1.00126.86 C
ATOM 13788 C THR C 411 174.562 194.555 151.747 1.00126.86 C
ATOM 13789 O THR C 411 174.802 193.790 150.807 1.00126.86 O
ATOM 13790 CB THR C 411 175.457 196.811 152.398 1.00126.86 C
ATOM 13791 OG1 THR C 411 175.166 196.567 153.780 1.00126.86 O
ATOM 13792 CG2 THR C 411 175.384 198.306 152.123 1.00126.86 C
ATOM 13793 N TYR C 412 174.367 194.111 152.988 1.00120.76 N
ATOM 13794 CA TYR C 412 174.279 192.684 153.261 1.00120.76 C
ATOM 13795 C TYR C 412 172.856 192.198 153.029 1.00120.76 C
ATOM 13796 O TYR C 412 171.885 192.874 153.379 1.00120.76 O
ATOM 13797 CB TYR C 412 174.687 192.347 154.697 1.00120.76 C
ATOM 13798 CG TYR C 412 176.143 192.555 155.053 1.00120.76 C
ATOM 13799 CD1 TYR C 412 177.066 192.975 154.109 1.00120.76 C
ATOM 13800 CD2 TYR C 412 176.599 192.278 156.332 1.00120.76 C
ATOM 13801 CE1 TYR C 412 178.393 193.161 154.447 1.00120.76 C
ATOM 13802 CE2 TYR C 412 177.929 192.440 156.669 1.00120.76 C
ATOM 13803 CZ TYR C 412 178.820 192.880 155.722 1.00120.76 C
ATOM 13804 OH TYR C 412 180.146 193.052 156.053 1.00120.76 O
ATOM 13805 N GLU C 413 172.739 191.014 152.439 1.00120.84 N
ATOM 13806 CA GLU C 413 171.459 190.351 152.257 1.00120.84 C
ATOM 13807 C GLU C 413 171.261 189.309 153.347 1.00120.84 C
ATOM 13808 O GLU C 413 172.211 188.633 153.756 1.00120.84 O
ATOM 13809 CB GLU C 413 171.372 189.687 150.883 1.00120.84 C
ATOM 13810 CG GLU C 413 171.342 190.663 149.727 1.00120.84 C
ATOM 13811 CD GLU C 413 171.231 189.970 148.388 1.00120.84 C
ATOM 13812 OE1 GLU C 413 171.297 188.724 148.355 1.00120.84 O
ATOM 13813 OE2 GLU C 413 171.076 190.671 147.367 1.00120.84 O
ATOM 13814 N LYS C 414 170.023 189.188 153.816 1.00119.04 N
ATOM 13815 CA LYS C 414 169.700 188.213 154.844 1.00119.04 C
ATOM 13816 C LYS C 414 169.949 186.795 154.337 1.00119.04 C
ATOM 13817 O LYS C 414 169.893 186.513 153.137 1.00119.04 O
ATOM 13818 CB LYS C 414 168.244 188.361 155.281 1.00119.04 C

ATOM 13819 CG LYS C 414 167.951 189.621 156.071 1.00119.04 C
ATOM 13820 CD LYS C 414 166.457 189.800 156.276 1.00119.04 C
ATOM 13821 CE LYS C 414 165.891 188.757 157.222 1.00119.04 C
ATOM 13822 NZ LYS C 414 164.450 189.006 157.497 1.00119.04 N
ATOM 13823 N TYR C 415 170.224 185.894 155.276 1.00117.68 N
ATOM 13824 CA TYR C 415 170.445 184.487 154.969 1.00117.68 C
ATOM 13825 C TYR C 415 169.590 183.641 155.895 1.00117.68 C
ATOM 13826 O TYR C 415 169.752 183.698 157.118 1.00117.68 O
ATOM 13827 CB TYR C 415 171.919 184.107 155.114 1.00117.68 C
ATOM 13828 CG TYR C 415 172.196 182.655 154.797 1.00117.68 C
ATOM 13829 CD1 TYR C 415 172.196 182.199 153.485 1.00117.68 C
ATOM 13830 CD2 TYR C 415 172.465 181.742 155.807 1.00117.68 C
ATOM 13831 CE1 TYR C 415 172.451 180.875 153.191 1.00117.68 C
ATOM 13832 CE2 TYR C 415 172.724 180.416 155.521 1.00117.68 C
ATOM 13833 CZ TYR C 415 172.715 179.988 154.211 1.00117.68 C
ATOM 13834 OH TYR C 415 172.972 178.669 153.918 1.00117.68 O
ATOM 13835 N GLY C 416 168.689 182.856 155.314 1.00115.60 N
ATOM 13836 CA GLY C 416 167.850 181.977 156.102 1.00115.60 C
ATOM 13837 C GLY C 416 166.903 182.717 157.022 1.00115.60 C
ATOM 13838 O GLY C 416 166.742 183.936 156.916 1.00115.60 O
ATOM 13839 N ASN C 417 166.264 181.988 157.924 1.00108.57 N
ATOM 13840 CA ASN C 417 165.281 182.549 158.831 1.00108.57 C
ATOM 13841 C ASN C 417 165.892 182.637 160.225 1.00108.57 C
ATOM 13842 O ASN C 417 167.087 182.393 160.415 1.00108.57 O
ATOM 13843 CB ASN C 417 164.022 181.690 158.785 1.00108.57 C
ATOM 13844 CG ASN C 417 163.474 181.567 157.386 1.00108.57 C
ATOM 13845 OD1 ASN C 417 163.319 182.559 156.672 1.00108.57 O
ATOM 13846 ND2 ASN C 417 163.210 180.338 156.971 1.00108.57 N
ATOM 13847 N VAL C 418 165.077 182.992 161.217 1.00104.51 N
ATOM 13848 CA VAL C 418 165.551 182.970 162.593 1.00104.51 C
ATOM 13849 C VAL C 418 165.785 181.528 163.015 1.00104.51 C
ATOM 13850 O VAL C 418 165.064 180.612 162.597 1.00104.51 O
ATOM 13851 CB VAL C 418 164.551 183.669 163.528 1.00104.51 C
ATOM 13852 CG1 VAL C 418 163.241 182.903 163.561 1.00104.51 C

ATOM 13853 CG2 VAL C 418 165.132 183.796 164.929 1.00104.51 C
ATOM 13854 N SER C 419 166.805 181.315 163.841 1.00104.43 N
ATOM 13855 CA SER C 419 167.141 179.991 164.340 1.00104.43 C
ATOM 13856 C SER C 419 167.423 180.097 165.828 1.00104.43 C
ATOM 13857 O SER C 419 168.274 180.887 166.248 1.00104.43 O
ATOM 13858 CB SER C 419 168.350 179.409 163.599 1.00104.43 C
ATOM 13859 OG SER C 419 168.664 178.108 164.063 1.00104.43 O
ATOM 13860 N VAL C 420 166.716 179.297 166.617 1.00103.77 N
ATOM 13861 CA VAL C 420 166.770 179.362 168.071 1.00103.77 C
ATOM 13862 C VAL C 420 167.664 178.234 168.564 1.00103.77 C
ATOM 13863 O VAL C 420 167.454 177.065 168.216 1.00103.77 O
ATOM 13864 CB VAL C 420 165.365 179.276 168.682 1.00103.77 C
ATOM 13865 CG1 VAL C 420 164.578 180.529 168.355 1.00103.77 C
ATOM 13866 CG2 VAL C 420 164.641 178.077 168.118 1.00103.77 C
ATOM 13867 N PHE C 421 168.668 178.587 169.364 1.00101.79 N
ATOM 13868 CA PHE C 421 169.640 177.639 169.899 1.00101.79 C
ATOM 13869 C PHE C 421 169.633 177.751 171.417 1.00101.79 C
ATOM 13870 O PHE C 421 170.098 178.753 171.970 1.00101.79 O
ATOM 13871 CB PHE C 421 171.039 177.914 169.348 1.00101.79 C
ATOM 13872 CG PHE C 421 171.175 177.664 167.876 1.00101.79 C
ATOM 13873 CD1 PHE C 421 171.401 176.388 167.393 1.00101.79 C
ATOM 13874 CD2 PHE C 421 171.079 178.707 166.976 1.00101.79 C
ATOM 13875 CE1 PHE C 421 171.529 176.159 166.039 1.00101.79 C
ATOM 13876 CE2 PHE C 421 171.206 178.484 165.622 1.00101.79 C
ATOM 13877 CZ PHE C 421 171.430 177.209 165.153 1.00101.79 C
ATOM 13878 N GLU C 422 169.107 176.733 172.090 1.00102.03 N
ATOM 13879 CA GLU C 422 169.141 176.719 173.545 1.00102.03 C
ATOM 13880 C GLU C 422 170.564 176.465 174.026 1.00102.03 C
ATOM 13881 O GLU C 422 171.208 175.497 173.611 1.00102.03 O
ATOM 13882 CB GLU C 422 168.193 175.655 174.092 1.00102.03 C
ATOM 13883 CG GLU C 422 168.122 175.627 175.609 1.00102.03 C
ATOM 13884 CD GLU C 422 167.121 174.618 176.132 1.00102.03 C
ATOM 13885 OE1 GLU C 422 166.483 173.930 175.308 1.00102.03 O
ATOM 13886 OE2 GLU C 422 166.974 174.513 177.367 1.00102.03 O

ATOM 13887 N THR C 423 171.054 177.337 174.900 1.00101.09 N
ATOM 13888 CA THR C 423 172.421 177.244 175.395 1.00101.09 C
ATOM 13889 C THR C 423 172.500 176.193 176.500 1.00101.09 C
ATOM 13890 O THR C 423 171.569 175.415 176.722 1.00101.09 O
ATOM 13891 CB THR C 423 172.903 178.606 175.882 1.00101.09 C
ATOM 13892 OG1 THR C 423 172.080 179.041 176.971 1.00101.09 O
ATOM 13893 CG2 THR C 423 172.829 179.628 174.759 1.00101.09 C
ATOM 13894 N THR C 424 173.630 176.158 177.204 1.00106.37 N
ATOM 13895 CA THR C 424 173.821 175.230 178.312 1.00106.37 C
ATOM 13896 C THR C 424 173.236 175.770 179.612 1.00106.37 C
ATOM 13897 O THR C 424 172.546 175.044 180.335 1.00106.37 O
ATOM 13898 CB THR C 424 175.311 174.926 178.497 1.00106.37 C
ATOM 13899 OG1 THR C 424 176.012 176.135 178.811 1.00106.37 O
ATOM 13900 CG2 THR C 424 175.893 174.325 177.229 1.00106.37 C
ATOM 13901 N GLY C 425 173.500 177.036 179.922 1.00102.97 N
ATOM 13902 CA GLY C 425 173.006 177.634 181.146 1.00102.97 C
ATOM 13903 C GLY C 425 171.613 178.217 181.025 1.00102.97 C
ATOM 13904 O GLY C 425 171.321 179.266 181.606 1.00102.97 O
ATOM 13905 N GLY C 426 170.742 177.548 180.270 1.00 97.64 N
ATOM 13906 CA GLY C 426 169.365 177.966 180.124 1.00 97.64 C
ATOM 13907 C GLY C 426 169.129 179.144 179.206 1.00 97.64 C
ATOM 13908 O GLY C 426 167.976 179.399 178.839 1.00 97.64 O
ATOM 13909 N LEU C 427 170.174 179.875 178.822 1.00 97.34 N
ATOM 13910 CA LEU C 427 169.999 181.037 177.961 1.00 97.34 C
ATOM 13911 C LEU C 427 169.493 180.609 176.589 1.00 97.34 C
ATOM 13912 O LEU C 427 170.043 179.696 175.967 1.00 97.34 O
ATOM 13913 CB LEU C 427 171.317 181.799 177.824 1.00 97.34 C
ATOM 13914 CG LEU C 427 171.758 182.667 179.005 1.00 97.34 C
ATOM 13915 CD1 LEU C 427 172.243 181.807 180.162 1.00 97.34 C
ATOM 13916 CD2 LEU C 427 172.838 183.646 178.575 1.00 97.34 C
ATOM 13917 N VAL C 428 168.441 181.273 176.121 1.00 98.38 N
ATOM 13918 CA VAL C 428 167.816 180.970 174.840 1.00 98.38 C
ATOM 13919 C VAL C 428 168.184 182.075 173.860 1.00 98.38 C
ATOM 13920 O VAL C 428 167.936 183.257 174.126 1.00 98.38 O

ATOM 13921 CB VAL C 428 166.291 180.837 174.979 1.00 98.38 C
ATOM 13922 CG1 VAL C 428 165.650 180.623 173.620 1.00 98.38 C
ATOM 13923 CG2 VAL C 428 165.944 179.697 175.920 1.00 98.38 C
ATOM 13924 N VAL C 429 168.779 181.696 172.729 1.00102.03 N
ATOM 13925 CA VAL C 429 169.202 182.654 171.718 1.00102.03 C
ATOM 13926 C VAL C 429 168.551 182.302 170.387 1.00102.03 C
ATOM 13927 O VAL C 429 168.058 181.192 170.174 1.00102.03 O
ATOM 13928 CB VAL C 429 170.735 182.710 171.566 1.00102.03 C
ATOM 13929 CG1 VAL C 429 171.380 183.142 172.868 1.00102.03 C
ATOM 13930 CG2 VAL C 429 171.272 181.367 171.115 1.00102.03 C
ATOM 13931 N PHE C 430 168.565 183.276 169.483 1.00110.57 N
ATOM 13932 CA PHE C 430 167.970 183.134 168.164 1.00110.57 C
ATOM 13933 C PHE C 430 168.542 184.221 167.268 1.00110.57 C
ATOM 13934 O PHE C 430 168.893 185.304 167.741 1.00110.57 O
ATOM 13935 CB PHE C 430 166.442 183.218 168.232 1.00110.57 C
ATOM 13936 CG PHE C 430 165.933 184.515 168.789 1.00110.57 C
ATOM 13937 CD1 PHE C 430 165.761 184.674 170.153 1.00110.57 C
ATOM 13938 CD2 PHE C 430 165.618 185.570 167.952 1.00110.57 C
ATOM 13939 CE1 PHE C 430 165.293 185.864 170.671 1.00110.57 C
ATOM 13940 CE2 PHE C 430 165.152 186.761 168.465 1.00110.57 C
ATOM 13941 CZ PHE C 430 164.987 186.908 169.825 1.00110.57 C
ATOM 13942 N TRP C 431 168.629 183.929 165.975 1.00105.09 N
ATOM 13943 CA TRP C 431 169.358 184.814 165.073 1.00105.09 C
ATOM 13944 C TRP C 431 169.187 184.317 163.642 1.00105.09 C
ATOM 13945 O TRP C 431 168.519 183.310 163.384 1.00105.09 O
ATOM 13946 CB TRP C 431 170.827 184.879 165.479 1.00105.09 C
ATOM 13947 CG TRP C 431 171.499 183.563 165.392 1.00105.09 C
ATOM 13948 CD1 TRP C 431 171.485 182.576 166.329 1.00105.09 C
ATOM 13949 CD2 TRP C 431 172.310 183.087 164.321 1.00105.09 C
ATOM 13950 NE1 TRP C 431 172.224 181.502 165.900 1.00105.09 N
ATOM 13951 CE2 TRP C 431 172.745 181.794 164.669 1.00105.09 C
ATOM 13952 CE3 TRP C 431 172.710 183.625 163.097 1.00105.09 C
ATOM 13953 CZ2 TRP C 431 173.552 181.031 163.838 1.00105.09 C
ATOM 13954 CZ3 TRP C 431 173.516 182.867 162.272 1.00105.09 C

ATOM 13955 CH2 TRP C 431 173.930 181.583 162.648 1.00105.09 C
ATOM 13956 N GLN C 432 169.800 185.045 162.708 1.00112.48 N
ATOM 13957 CA GLN C 432 169.732 184.730 161.288 1.00112.48 C
ATOM 13958 C GLN C 432 171.043 185.128 160.623 1.00112.48 C
ATOM 13959 O GLN C 432 171.770 185.999 161.106 1.00112.48 O
ATOM 13960 CB GLN C 432 168.551 185.440 160.613 1.00112.48 C
ATOM 13961 CG GLN C 432 168.657 186.955 160.613 1.00112.48 C
ATOM 13962 CD GLN C 432 167.436 187.625 160.017 1.00112.48 C
ATOM 13963 OE1 GLN C 432 166.506 186.958 159.563 1.00112.48 O
ATOM 13964 NE2 GLN C 432 167.435 188.952 160.010 1.00112.48 N
ATOM 13965 N GLY C 433 171.338 184.475 159.496 1.00113.48 N
ATOM 13966 CA GLY C 433 172.585 184.717 158.804 1.00113.48 C
ATOM 13967 C GLY C 433 172.563 185.981 157.963 1.00113.48 C
ATOM 13968 O GLY C 433 171.518 186.454 157.520 1.00113.48 O
ATOM 13969 N ILE C 434 173.754 186.534 157.739 1.00114.95 N
ATOM 13970 CA ILE C 434 173.910 187.791 157.016 1.00114.95 C
ATOM 13971 C ILE C 434 175.113 187.689 156.087 1.00114.95 C
ATOM 13972 O ILE C 434 176.109 187.035 156.412 1.00114.95 O
ATOM 13973 CB ILE C 434 174.067 188.982 157.983 1.00114.95 C
ATOM 13974 CG1 ILE C 434 173.991 190.303 157.219 1.00114.95 C
ATOM 13975 CG2 ILE C 434 175.375 188.874 158.748 1.00114.95 C
ATOM 13976 CD1 ILE C 434 173.815 191.512 158.109 1.00114.95 C
ATOM 13977 N LYS C 435 175.014 188.338 154.929 1.00116.80 N
ATOM 13978 CA LYS C 435 176.103 188.405 153.961 1.00116.80 C
ATOM 13979 C LYS C 435 175.664 189.313 152.821 1.00116.80 C
ATOM 13980 O LYS C 435 174.511 189.745 152.758 1.00116.80 O
ATOM 13981 CB LYS C 435 176.493 187.024 153.430 1.00116.80 C
ATOM 13982 CG LYS C 435 175.405 186.326 152.637 1.00116.80 C
ATOM 13983 CD LYS C 435 175.935 185.057 152.003 1.00116.80 C
ATOM 13984 CE LYS C 435 176.243 184.020 153.054 1.00116.80 C
ATOM 13985 NZ LYS C 435 175.006 183.609 153.757 1.00116.80 N
ATOM 13986 N GLN C 436 176.596 189.588 151.912 1.00114.59 N
ATOM 13987 CA GLN C 436 176.310 190.456 150.772 1.00114.59 C
ATOM 13988 C GLN C 436 176.758 189.833 149.456 1.00114.59 C

ATOM 13989 O GLN C 436 176.937 190.538 148.462 1.00114.59 O
ATOM 13990 CB GLN C 436 176.988 191.813 150.948 1.00114.59 C
ATOM 13991 CG GLN C 436 178.484 191.790 150.726 1.00114.59 C
ATOM 13992 CD GLN C 436 179.232 191.306 151.941 1.00114.59 C
ATOM 13993 OE1 GLN C 436 178.663 190.648 152.810 1.00114.59 O
ATOM 13994 NE2 GLN C 436 180.506 191.661 152.031 1.00114.59 N
ATOM 13995 N GLN C 483 188.987 186.057 138.721 1.00103.14 N
ATOM 13996 CA GLN C 483 187.763 186.284 139.480 1.00103.14 C
ATOM 13997 C GLN C 483 187.827 187.567 140.299 1.00103.14 C
ATOM 13998 O GLN C 483 186.898 188.375 140.265 1.00103.14 O
ATOM 13999 CB GLN C 483 187.480 185.099 140.404 1.00103.14 C
ATOM 14000 CG GLN C 483 186.215 185.255 141.231 1.00103.14 C
ATOM 14001 CD GLN C 483 184.970 185.365 140.376 1.00103.14 C
ATOM 14002 OE1 GLN C 483 184.415 186.450 140.203 1.00103.14 O
ATOM 14003 NE2 GLN C 483 184.523 184.239 139.836 1.00103.14 N
ATOM 14004 N LEU C 484 188.918 187.719 141.056 1.00103.43 N
ATOM 14005 CA LEU C 484 189.175 188.871 141.919 1.00103.43 C
ATOM 14006 C LEU C 484 188.326 188.839 143.187 1.00103.43 C
ATOM 14007 O LEU C 484 188.495 189.683 144.073 1.00103.43 O
ATOM 14008 CB LEU C 484 188.950 190.183 141.156 1.00103.43 C
ATOM 14009 CG LEU C 484 189.216 191.497 141.894 1.00103.43 C
ATOM 14010 CD1 LEU C 484 190.666 191.580 142.335 1.00103.43 C
ATOM 14011 CD2 LEU C 484 188.849 192.687 141.022 1.00103.43 C
ATOM 14012 N GLN C 485 187.424 187.865 143.301 1.00102.65 N
ATOM 14013 CA GLN C 485 186.626 187.723 144.511 1.00102.65 C
ATOM 14014 C GLN C 485 187.249 186.752 145.500 1.00102.65 C
ATOM 14015 O GLN C 485 187.133 186.958 146.714 1.00102.65 O
ATOM 14016 CB GLN C 485 185.207 187.265 144.160 1.00102.65 C
ATOM 14017 CG GLN C 485 184.214 187.337 145.316 1.00102.65 C
ATOM 14018 CD GLN C 485 184.190 186.075 146.157 1.00102.65 C
ATOM 14019 OE1 GLN C 485 184.454 184.981 145.660 1.00102.65 O
ATOM 14020 NE2 GLN C 485 183.879 186.222 147.439 1.00102.65 N
ATOM 14021 N PHE C 486 187.903 185.698 145.007 1.00101.49 N
ATOM 14022 CA PHE C 486 188.512 184.717 145.899 1.00101.49 C

ATOM 14023 C PHE C 486 189.614 185.336 146.747 1.00101.49 C
ATOM 14024 O PHE C 486 189.893 184.854 147.850 1.00101.49 O
ATOM 14025 CB PHE C 486 189.056 183.543 145.089 1.00101.49 C
ATOM 14026 CG PHE C 486 189.662 182.462 145.928 1.00101.49 C
ATOM 14027 CD1 PHE C 486 188.858 181.596 146.648 1.00101.49 C
ATOM 14028 CD2 PHE C 486 191.034 182.307 145.997 1.00101.49 C
ATOM 14029 CE1 PHE C 486 189.412 180.598 147.422 1.00101.49 C
ATOM 14030 CE2 PHE C 486 191.595 181.310 146.768 1.00101.49 C
ATOM 14031 CZ PHE C 486 190.782 180.454 147.482 1.00101.49 C
ATOM 14032 N THR C 487 190.255 186.394 146.249 1.00 98.58 N
ATOM 14033 CA THR C 487 191.243 187.103 147.054 1.00 98.58 C
ATOM 14034 C THR C 487 190.594 187.761 148.264 1.00 98.58 C
ATOM 14035 O THR C 487 191.173 187.777 149.356 1.00 98.58 O
ATOM 14036 CB THR C 487 191.957 188.149 146.203 1.00 98.58 C
ATOM 14037 OG1 THR C 487 191.006 189.120 145.751 1.00 98.58 O
ATOM 14038 CG2 THR C 487 192.607 187.495 144.998 1.00 98.58 C
ATOM 14039 N TYR C 488 189.392 188.312 148.086 1.00 96.63 N
ATOM 14040 CA TYR C 488 188.743 189.044 149.168 1.00 96.63 C
ATOM 14041 C TYR C 488 188.276 188.111 150.279 1.00 96.63 C
ATOM 14042 O TYR C 488 188.339 188.469 151.460 1.00 96.63 O
ATOM 14043 CB TYR C 488 187.568 189.849 148.619 1.00 96.63 C
ATOM 14044 CG TYR C 488 186.855 190.680 149.658 1.00 96.63 C
ATOM 14045 CD1 TYR C 488 187.411 191.859 150.131 1.00 96.63 C
ATOM 14046 CD2 TYR C 488 185.626 190.286 150.164 1.00 96.63 C
ATOM 14047 CE1 TYR C 488 186.762 192.623 151.079 1.00 96.63 C
ATOM 14048 CE2 TYR C 488 184.969 191.044 151.113 1.00 96.63 C
ATOM 14049 CZ TYR C 488 185.542 192.211 151.567 1.00 96.63 C
ATOM 14050 OH TYR C 488 184.892 192.969 152.513 1.00 96.63 O
ATOM 14051 N ASP C 489 187.795 186.918 149.921 1.00 98.54 N
ATOM 14052 CA ASP C 489 187.273 186.000 150.929 1.00 98.54 C
ATOM 14053 C ASP C 489 188.365 185.573 151.901 1.00 98.54 C
ATOM 14054 O ASP C 489 188.246 185.779 153.115 1.00 98.54 O
ATOM 14055 CB ASP C 489 186.646 184.778 150.257 1.00 98.54 C
ATOM 14056 CG ASP C 489 185.838 183.928 151.225 1.00 98.54 C

ATOM 14057 OD1 ASP C 489 185.745 184.295 152.416 1.00 98.54 O
ATOM 14058 OD2 ASP C 489 185.299 182.887 150.796 1.00 98.54 O
ATOM 14059 N THR C 490 189.435 184.965 151.384 1.00 97.51 N
ATOM 14060 CA THR C 490 190.508 184.486 152.249 1.00 97.51 C
ATOM 14061 C THR C 490 191.149 185.630 153.021 1.00 97.51 C
ATOM 14062 O THR C 490 191.548 185.462 154.179 1.00 97.51 O
ATOM 14063 CB THR C 490 191.560 183.747 151.426 1.00 97.51 C
ATOM 14064 OG1 THR C 490 192.151 184.651 150.484 1.00 97.51 O
ATOM 14065 CG2 THR C 490 190.923 182.594 150.676 1.00 97.51 C
ATOM 14066 N LEU C 491 191.253 186.804 152.398 1.00 97.01 N
ATOM 14067 CA LEU C 491 191.816 187.952 153.094 1.00 97.01 C
ATOM 14068 C LEU C 491 190.815 188.593 154.045 1.00 97.01 C
ATOM 14069 O LEU C 491 191.195 189.472 154.825 1.00 97.01 O
ATOM 14070 CB LEU C 491 192.338 188.966 152.078 1.00 97.01 C
ATOM 14071 CG LEU C 491 193.055 190.193 152.630 1.00 97.01 C
ATOM 14072 CD1 LEU C 491 194.198 189.766 153.523 1.00 97.01 C
ATOM 14073 CD2 LEU C 491 193.584 191.006 151.473 1.00 97.01 C
ATOM 14074 N ARG C 492 189.550 188.176 153.999 1.00 96.01 N
ATOM 14075 CA ARG C 492 188.590 188.523 155.038 1.00 96.01 C
ATOM 14076 C ARG C 492 188.295 187.365 155.976 1.00 96.01 C
ATOM 14077 O ARG C 492 188.036 187.593 157.161 1.00 96.01 O
ATOM 14078 CB ARG C 492 187.272 189.003 154.427 1.00 96.01 C
ATOM 14079 CG ARG C 492 186.270 189.474 155.464 1.00 96.01 C
ATOM 14080 CD ARG C 492 184.969 189.892 154.817 1.00 96.01 C
ATOM 14081 NE ARG C 492 184.273 188.752 154.230 1.00 96.01 N
ATOM 14082 CZ ARG C 492 183.201 188.855 153.455 1.00 96.01 C
ATOM 14083 NH1 ARG C 492 182.627 187.767 152.962 1.00 96.01 N
ATOM 14084 NH2 ARG C 492 182.703 190.050 153.175 1.00 96.01 N
ATOM 14085 N GLY C 493 188.323 186.130 155.473 1.00 95.97 N
ATOM 14086 CA GLY C 493 188.199 184.976 156.343 1.00 95.97 C
ATOM 14087 C GLY C 493 189.373 184.798 157.279 1.00 95.97 C
ATOM 14088 O GLY C 493 189.246 184.105 158.293 1.00 95.97 O
ATOM 14089 N TYR C 494 190.515 185.405 156.957 1.00 94.54 N
ATOM 14090 CA TYR C 494 191.664 185.365 157.850 1.00 94.54 C

ATOM 14091 C TYR C 494 191.525 186.352 159.000 1.00 94.54 C
ATOM 14092 O TYR C 494 191.983 186.068 160.112 1.00 94.54 O
ATOM 14093 CB TYR C 494 192.943 185.649 157.067 1.00 94.54 C
ATOM 14094 CG TYR C 494 194.193 185.611 157.909 1.00 94.54 C
ATOM 14095 CD1 TYR C 494 194.738 184.403 158.320 1.00 94.54 C
ATOM 14096 CD2 TYR C 494 194.828 186.782 158.294 1.00 94.54 C
ATOM 14097 CE1 TYR C 494 195.882 184.363 159.091 1.00 94.54 C
ATOM 14098 CE2 TYR C 494 195.972 186.752 159.065 1.00 94.54 C
ATOM 14099 CZ TYR C 494 196.494 185.541 159.461 1.00 94.54 C
ATOM 14100 OH TYR C 494 197.635 185.507 160.229 1.00 94.54 O
ATOM 14101 N ILE C 495 190.906 187.509 158.755 1.00 89.66 N
ATOM 14102 CA ILE C 495 190.699 188.481 159.824 1.00 89.66 C
ATOM 14103 C ILE C 495 189.765 187.910 160.883 1.00 89.66 C
ATOM 14104 O ILE C 495 190.041 187.990 162.086 1.00 89.66 O
ATOM 14105 CB ILE C 495 190.160 189.802 159.252 1.00 89.66 C
ATOM 14106 CG1 ILE C 495 191.183 190.428 158.307 1.00 89.66 C
ATOM 14107 CG2 ILE C 495 189.817 190.763 160.374 1.00 89.66 C
ATOM 14108 CD1 ILE C 495 190.640 191.588 157.510 1.00 89.66 C
ATOM 14109 N ASN C 496 188.641 187.333 160.452 1.00 90.60 N
ATOM 14110 CA ASN C 496 187.776 186.618 161.384 1.00 90.60 C
ATOM 14111 C ASN C 496 188.509 185.453 162.030 1.00 90.60 C
ATOM 14112 O ASN C 496 188.224 185.097 163.179 1.00 90.60 O
ATOM 14113 CB ASN C 496 186.523 186.122 160.664 1.00 90.60 C
ATOM 14114 CG ASN C 496 185.622 187.253 160.220 1.00 90.60 C
ATOM 14115 OD1 ASN C 496 185.425 188.227 160.946 1.00 90.60 O
ATOM 14116 ND2 ASN C 496 185.067 187.129 159.022 1.00 90.60 N
ATOM 14117 N ARG C 497 189.452 184.847 161.306 1.00 95.25 N
ATOM 14118 CA ARG C 497 190.270 183.787 161.880 1.00 95.25 C
ATOM 14119 C ARG C 497 191.081 184.282 163.070 1.00 95.25 C
ATOM 14120 O ARG C 497 191.381 183.504 163.981 1.00 95.25 O
ATOM 14121 CB ARG C 497 191.195 183.210 160.809 1.00 95.25 C
ATOM 14122 CG ARG C 497 192.063 182.070 161.294 1.00 95.25 C
ATOM 14123 CD ARG C 497 191.271 180.782 161.379 1.00 95.25 C
ATOM 14124 NE ARG C 497 190.461 180.732 162.591 1.00 95.25 N

ATOM 14125 CZ ARG C 497 190.946 180.464 163.799 1.00 95.25 C
ATOM 14126 NH1 ARG C 497 190.138 180.438 164.849 1.00 95.25 N
ATOM 14127 NH2 ARG C 497 192.241 180.229 163.957 1.00 95.25 N
ATOM 14128 N ALA C 498 191.447 185.565 163.079 1.00 89.27 N
ATOM 14129 CA ALA C 498 192.259 186.099 164.167 1.00 89.27 C
ATOM 14130 C ALA C 498 191.400 186.597 165.322 1.00 89.27 C
ATOM 14131 O ALA C 498 191.785 186.457 166.488 1.00 89.27 O
ATOM 14132 CB ALA C 498 193.157 187.222 163.651 1.00 89.27 C
ATOM 14133 N LEU C 499 190.238 187.176 165.025 1.00 84.00 N
ATOM 14134 CA LEU C 499 189.369 187.710 166.067 1.00 84.00 C
ATOM 14135 C LEU C 499 188.711 186.628 166.912 1.00 84.00 C
ATOM 14136 O LEU C 499 188.069 186.957 167.914 1.00 84.00 O
ATOM 14137 CB LEU C 499 188.291 188.601 165.450 1.00 84.00 C
ATOM 14138 CG LEU C 499 188.791 189.892 164.803 1.00 84.00 C
ATOM 14139 CD1 LEU C 499 187.646 190.625 164.128 1.00 84.00 C
ATOM 14140 CD2 LEU C 499 189.468 190.777 165.836 1.00 84.00 C
ATOM 14141 N ALA C 500 188.847 185.357 166.539 1.00 90.12 N
ATOM 14142 CA ALA C 500 188.307 184.276 167.351 1.00 90.12 C
ATOM 14143 C ALA C 500 189.289 183.819 168.419 1.00 90.12 C
ATOM 14144 O ALA C 500 188.882 183.526 169.547 1.00 90.12 O
ATOM 14145 CB ALA C 500 187.911 183.094 166.464 1.00 90.12 C
ATOM 14146 N GLN C 501 190.580 183.765 168.094 1.00 92.54 N
ATOM 14147 CA GLN C 501 191.586 183.373 169.072 1.00 92.54 C
ATOM 14148 C GLN C 501 191.934 184.492 170.042 1.00 92.54 C
ATOM 14149 O GLN C 501 192.780 184.289 170.919 1.00 92.54 O
ATOM 14150 CB GLN C 501 192.851 182.885 168.365 1.00 92.54 C
ATOM 14151 CG GLN C 501 193.572 183.947 167.561 1.00 92.54 C
ATOM 14152 CD GLN C 501 194.780 183.394 166.834 1.00 92.54 C
ATOM 14153 OE1 GLN C 501 195.116 182.218 166.974 1.00 92.54 O
ATOM 14154 NE2 GLN C 501 195.439 184.238 166.052 1.00 92.54 N
ATOM 14155 N ILE C 502 191.315 185.663 169.905 1.00 88.94 N
ATOM 14156 CA ILE C 502 191.453 186.703 170.917 1.00 88.94 C
ATOM 14157 C ILE C 502 190.467 186.471 172.053 1.00 88.94 C
ATOM 14158 O ILE C 502 190.850 186.404 173.226 1.00 88.94 O

ATOM 14159 CB ILE C 502 191.269 188.093 170.284 1.00 88.94 C
ATOM 14160 CG1 ILE C 502 192.313 188.323 169.192 1.00 88.94 C
ATOM 14161 CG2 ILE C 502 191.367 189.176 171.343 1.00 88.94 C
ATOM 14162 CD1 ILE C 502 193.734 188.293 169.697 1.00 88.94 C
ATOM 14163 N ALA C 503 189.180 186.339 171.721 1.00 92.53 N
ATOM 14164 CA ALA C 503 188.175 186.091 172.748 1.00 92.53 C
ATOM 14165 C ALA C 503 188.347 184.719 173.388 1.00 92.53 C
ATOM 14166 O ALA C 503 187.898 184.504 174.518 1.00 92.53 O
ATOM 14167 CB ALA C 503 186.773 186.232 172.157 1.00 92.53 C
ATOM 14168 N GLU C 504 188.976 183.776 172.683 1.00 99.66 N
ATOM 14169 CA GLU C 504 189.279 182.488 173.300 1.00 99.66 C
ATOM 14170 C GLU C 504 190.255 182.658 174.455 1.00 99.66 C
ATOM 14171 O GLU C 504 190.148 181.970 175.477 1.00 99.66 O
ATOM 14172 CB GLU C 504 189.840 181.521 172.260 1.00 99.66 C
ATOM 14173 CG GLU C 504 188.827 181.092 171.219 1.00 99.66 C
ATOM 14174 CD GLU C 504 189.419 180.173 170.172 1.00 99.66 C
ATOM 14175 OE1 GLU C 504 190.647 179.948 170.201 1.00 99.66 O
ATOM 14176 OE2 GLU C 504 188.656 179.685 169.313 1.00 99.66 O
ATOM 14177 N ALA C 505 191.210 183.572 174.311 1.00 97.59 N
ATOM 14178 CA ALA C 505 192.085 183.966 175.405 1.00 97.59 C
ATOM 14179 C ALA C 505 191.467 185.050 176.273 1.00 97.59 C
ATOM 14180 O ALA C 505 192.192 185.742 176.996 1.00 97.59 O
ATOM 14181 CB ALA C 505 193.433 184.440 174.859 1.00 97.59 C
ATOM 14182 N TRP C 506 190.148 185.213 176.207 1.00103.21 N
ATOM 14183 CA TRP C 506 189.436 186.210 176.990 1.00103.21 C
ATOM 14184 C TRP C 506 188.698 185.618 178.178 1.00103.21 C
ATOM 14185 O TRP C 506 188.599 186.273 179.220 1.00103.21 O
ATOM 14186 CB TRP C 506 188.436 186.956 176.106 1.00103.21 C
ATOM 14187 CG TRP C 506 187.758 188.051 176.825 1.00103.21 C
ATOM 14188 CD1 TRP C 506 186.480 188.060 177.296 1.00103.21 C
ATOM 14189 CD2 TRP C 506 188.332 189.306 177.186 1.00103.21 C
ATOM 14190 NE1 TRP C 506 186.218 189.255 177.920 1.00103.21 N
ATOM 14191 CE2 TRP C 506 187.342 190.037 177.866 1.00103.21 C
ATOM 14192 CE3 TRP C 506 189.589 189.885 176.995 1.00103.21 C

ATOM 14193 CZ2 TRP C 506 187.569 191.318 178.356 1.00103.21 C
ATOM 14194 CZ3 TRP C 506 189.813 191.153 177.481 1.00103.21 C
ATOM 14195 CH2 TRP C 506 188.810 191.856 178.152 1.00103.21 C
ATOM 14196 N CYS C 507 188.177 184.398 178.042 1.00104.72 N
ATOM 14197 CA CYS C 507 187.498 183.745 179.154 1.00104.72 C
ATOM 14198 C CYS C 507 188.429 183.511 180.336 1.00104.72 C
ATOM 14199 O CYS C 507 187.956 183.421 181.474 1.00104.72 O
ATOM 14200 CB CYS C 507 186.895 182.420 178.687 1.00104.72 C
ATOM 14201 SG CYS C 507 185.922 181.541 179.927 1.00104.72 S
ATOM 14202 N VAL C 508 189.736 183.409 180.095 1.00 95.16 N
ATOM 14203 CA VAL C 508 190.680 183.204 181.188 1.00 95.16 C
ATOM 14204 C VAL C 508 190.833 184.472 182.015 1.00 95.16 C
ATOM 14205 O VAL C 508 191.037 184.411 183.232 1.00 95.16 O
ATOM 14206 CB VAL C 508 192.032 182.724 180.636 1.00 95.16 C
ATOM 14207 CG1 VAL C 508 193.048 182.623 181.758 1.00 95.16 C
ATOM 14208 CG2 VAL C 508 191.869 181.387 179.933 1.00 95.16 C
ATOM 14209 N ASP C 509 190.750 185.634 181.376 1.00 96.03 N
ATOM 14210 CA ASP C 509 190.825 186.904 182.084 1.00 96.03 C
ATOM 14211 C ASP C 509 189.490 187.322 182.677 1.00 96.03 C
ATOM 14212 O ASP C 509 189.423 188.356 183.350 1.00 96.03 O
ATOM 14213 CB ASP C 509 191.345 187.987 181.143 1.00 96.03 C
ATOM 14214 CG ASP C 509 192.791 187.772 180.767 1.00 96.03 C
ATOM 14215 OD1 ASP C 509 193.562 187.280 181.618 1.00 96.03 O
ATOM 14216 OD2 ASP C 509 193.147 188.057 179.609 1.00 96.03 O
ATOM 14217 N GLN C 510 188.435 186.548 182.438 1.00 87.40 N
ATOM 14218 CA GLN C 510 187.155 186.751 183.095 1.00 87.40 C
ATOM 14219 C GLN C 510 187.018 185.914 184.357 1.00 87.40 C
ATOM 14220 O GLN C 510 186.213 186.259 185.228 1.00 87.40 O
ATOM 14221 CB GLN C 510 186.014 186.430 182.115 1.00 87.40 C
ATOM 14222 CG GLN C 510 184.607 186.830 182.553 1.00 87.40 C
ATOM 14223 CD GLN C 510 183.943 185.800 183.445 1.00 87.40 C
ATOM 14224 OE1 GLN C 510 183.468 186.121 184.533 1.00 87.40 O
ATOM 14225 NE2 GLN C 510 183.917 184.553 182.992 1.00 87.40 N
ATOM 14226 N ARG C 511 187.799 184.844 184.489 1.00 78.01 N

ATOM 14227 CA ARG C 511 187.788 184.047 185.706 1.00 78.01 C
ATOM 14228 C ARG C 511 188.754 184.567 186.758 1.00 78.01 C
ATOM 14229 O ARG C 511 188.622 184.205 187.932 1.00 78.01 O
ATOM 14230 CB ARG C 511 188.117 182.589 185.384 1.00 78.01 C
ATOM 14231 CG ARG C 511 189.508 182.387 184.830 1.00 78.01 C
ATOM 14232 CD ARG C 511 189.746 180.935 184.472 1.00 78.01 C
ATOM 14233 NE ARG C 511 189.774 180.076 185.650 1.00 78.01 N
ATOM 14234 CZ ARG C 511 189.688 178.752 185.605 1.00 78.01 C
ATOM 14235 NH1 ARG C 511 189.567 178.135 184.438 1.00 78.01 N
ATOM 14236 NH2 ARG C 511 189.723 178.043 186.725 1.00 78.01 N
ATOM 14237 N ARG C 512 189.722 185.398 186.370 1.00 66.19 N
ATOM 14238 CA ARG C 512 190.553 186.070 187.363 1.00 66.19 C
ATOM 14239 C ARG C 512 189.725 187.050 188.181 1.00 66.19 C
ATOM 14240 O ARG C 512 189.757 187.028 189.417 1.00 66.19 O
ATOM 14241 CB ARG C 512 191.713 186.793 186.681 1.00 66.19 C
ATOM 14242 CG ARG C 512 192.665 185.896 185.915 1.00 66.19 C
ATOM 14243 CD ARG C 512 193.474 185.012 186.843 1.00 66.19 C
ATOM 14244 NE ARG C 512 194.492 184.263 186.113 1.00 66.19 N
ATOM 14245 CZ ARG C 512 195.292 183.355 186.663 1.00 66.19 C
ATOM 14246 NH1 ARG C 512 195.191 183.076 187.954 1.00 66.19 N
ATOM 14247 NH2 ARG C 512 196.192 182.726 185.921 1.00 66.19 N
ATOM 14248 N THR C 513 188.976 187.923 187.503 1.00 59.99 N
ATOM 14249 CA THR C 513 188.155 188.904 188.203 1.00 59.99 C
ATOM 14250 C THR C 513 187.104 188.240 189.083 1.00 59.99 C
ATOM 14251 O THR C 513 186.740 188.787 190.129 1.00 59.99 O
ATOM 14252 CB THR C 513 187.492 189.845 187.198 1.00 59.99 C
ATOM 14253 OG1 THR C 513 188.503 190.549 186.466 1.00 59.99 O
ATOM 14254 CG2 THR C 513 186.607 190.846 187.913 1.00 59.99 C
ATOM 14255 N LEU C 514 186.612 187.065 188.691 1.00 63.05 N
ATOM 14256 CA LEU C 514 185.689 186.309 189.530 1.00 63.05 C
ATOM 14257 C LEU C 514 186.398 185.491 190.596 1.00 63.05 C
ATOM 14258 O LEU C 514 185.777 184.622 191.218 1.00 63.05 O
ATOM 14259 CB LEU C 514 184.804 185.401 188.673 1.00 63.05 C
ATOM 14260 CG LEU C 514 183.511 186.023 188.144 1.00 63.05 C

ATOM 14261 CD1 LEU C 514 182.586 186.374 189.296 1.00 63.05 C
ATOM 14262 CD2 LEU C 514 183.798 187.252 187.302 1.00 63.05 C
ATOM 14263 N GLU C 515 187.685 185.742 190.811 1.00 57.01 N
ATOM 14264 CA GLU C 515 188.405 185.208 191.956 1.00 57.01 C
ATOM 14265 C GLU C 515 189.111 186.283 192.759 1.00 57.01 C
ATOM 14266 O GLU C 515 189.301 186.097 193.967 1.00 57.01 O
ATOM 14267 CB GLU C 515 189.431 184.155 191.506 1.00 57.01 C
ATOM 14268 CG GLU C 515 190.030 183.321 192.631 1.00 57.01 C
ATOM 14269 CD GLU C 515 191.249 183.962 193.262 1.00 57.01 C
ATOM 14270 OE1 GLU C 515 191.956 184.710 192.558 1.00 57.01 O
ATOM 14271 OE2 GLU C 515 191.492 183.726 194.463 1.00 57.01 O
ATOM 14272 N VAL C 516 189.501 187.398 192.141 1.00 52.84 N
ATOM 14273 CA VAL C 516 189.997 188.533 192.902 1.00 52.84 C
ATOM 14274 C VAL C 516 188.881 189.204 193.687 1.00 52.84 C
ATOM 14275 O VAL C 516 189.139 189.766 194.757 1.00 52.84 O
ATOM 14276 CB VAL C 516 190.681 189.548 191.974 1.00 52.84 C
ATOM 14277 CG1 VAL C 516 191.101 190.775 192.753 1.00 52.84 C
ATOM 14278 CG2 VAL C 516 191.877 188.912 191.291 1.00 52.84 C
ATOM 14279 N PHE C 517 187.643 189.152 193.196 1.00 50.97 N
ATOM 14280 CA PHE C 517 186.519 189.644 193.978 1.00 50.97 C
ATOM 14281 C PHE C 517 186.130 188.687 195.089 1.00 50.97 C
ATOM 14282 O PHE C 517 185.491 189.107 196.056 1.00 50.97 O
ATOM 14283 CB PHE C 517 185.303 189.893 193.087 1.00 50.97 C
ATOM 14284 CG PHE C 517 185.447 191.072 192.177 1.00 50.97 C
ATOM 14285 CD1 PHE C 517 186.447 192.004 192.381 1.00 50.97 C
ATOM 14286 CD2 PHE C 517 184.576 191.252 191.119 1.00 50.97 C
ATOM 14287 CE1 PHE C 517 186.579 193.090 191.542 1.00 50.97 C
ATOM 14288 CE2 PHE C 517 184.703 192.335 190.279 1.00 50.97 C
ATOM 14289 CZ PHE C 517 185.706 193.256 190.490 1.00 50.97 C
ATOM 14290 N LYS C 518 186.501 187.414 194.980 1.00 54.44 N
ATOM 14291 CA LYS C 518 186.165 186.472 196.036 1.00 54.44 C
ATOM 14292 C LYS C 518 186.935 186.751 197.318 1.00 54.44 C
ATOM 14293 O LYS C 518 186.526 186.283 198.385 1.00 54.44 O
ATOM 14294 CB LYS C 518 186.427 185.047 195.565 1.00 54.44 C

ATOM 14295 CG LYS C 518 185.905 183.988 196.506 1.00 54.44 C
ATOM 14296 CD LYS C 518 186.218 182.612 195.967 1.00 54.44 C
ATOM 14297 CE LYS C 518 185.076 182.068 195.132 1.00 54.44 C
ATOM 14298 NZ LYS C 518 185.026 182.690 193.778 1.00 54.44 N
ATOM 14299 N GLU C 519 188.034 187.497 197.238 1.00 48.55 N
ATOM 14300 CA GLU C 519 188.794 187.919 198.407 1.00 48.55 C
ATOM 14301 C GLU C 519 188.520 189.364 198.795 1.00 48.55 C
ATOM 14302 O GLU C 519 188.305 189.651 199.975 1.00 48.55 O
ATOM 14303 CB GLU C 519 190.291 187.731 198.158 1.00 48.55 C
ATOM 14304 CG GLU C 519 190.698 186.284 197.965 1.00 48.55 C
ATOM 14305 CD GLU C 519 190.493 185.455 199.212 1.00 48.55 C
ATOM 14306 OE1 GLU C 519 190.595 186.021 200.320 1.00 48.55 O
ATOM 14307 OE2 GLU C 519 190.237 184.239 199.090 1.00 48.55 O
ATOM 14308 N LEU C 520 188.521 190.284 197.826 1.00 43.62 N
ATOM 14309 CA LEU C 520 188.168 191.670 198.113 1.00 43.62 C
ATOM 14310 C LEU C 520 186.751 191.811 198.651 1.00 43.62 C
ATOM 14311 O LEU C 520 186.462 192.788 199.349 1.00 43.62 O
ATOM 14312 CB LEU C 520 188.338 192.533 196.864 1.00 43.62 C
ATOM 14313 CG LEU C 520 189.756 193.041 196.612 1.00 43.62 C
ATOM 14314 CD1 LEU C 520 190.676 191.909 196.209 1.00 43.62 C
ATOM 14315 CD2 LEU C 520 189.740 194.122 195.549 1.00 43.62 C
ATOM 14316 N SER C 521 185.862 190.867 198.352 1.00 42.61 N
ATOM 14317 CA SER C 521 184.536 190.855 198.956 1.00 42.61 C
ATOM 14318 C SER C 521 184.574 190.472 200.424 1.00 42.61 C
ATOM 14319 O SER C 521 183.555 190.591 201.113 1.00 42.61 O
ATOM 14320 CB SER C 521 183.615 189.895 198.203 1.00 42.61 C
ATOM 14321 OG SER C 521 184.037 188.555 198.376 1.00 42.61 O
ATOM 14322 N LYS C 522 185.724 190.019 200.913 1.00 38.82 N
ATOM 14323 CA LYS C 522 185.899 189.684 202.313 1.00 38.82 C
ATOM 14324 C LYS C 522 186.433 190.844 203.135 1.00 38.82 C
ATOM 14325 O LYS C 522 186.286 190.829 204.361 1.00 38.82 O
ATOM 14326 CB LYS C 522 186.839 188.481 202.448 1.00 38.82 C
ATOM 14327 CG LYS C 522 186.943 187.924 203.841 1.00 38.82 C
ATOM 14328 CD LYS C 522 187.819 186.694 203.832 1.00 38.82 C

ATOM 14329 CE LYS C 522 186.983 185.442 203.635 1.00 38.82 C
ATOM 14330 NZ LYS C 522 186.569 185.274 202.214 1.00 38.82 N
ATOM 14331 N ILE C 523 187.041 191.841 202.501 1.00 39.23 N
ATOM 14332 CA ILE C 523 187.392 193.068 203.204 1.00 39.23 C
ATOM 14333 C ILE C 523 186.159 193.914 203.470 1.00 39.23 C
ATOM 14334 O ILE C 523 185.769 194.101 204.623 1.00 39.23 O
ATOM 14335 CB ILE C 523 188.447 193.859 202.408 1.00 39.23 C
ATOM 14336 CG1 ILE C 523 189.766 193.095 202.357 1.00 39.23 C
ATOM 14337 CG2 ILE C 523 188.650 195.229 203.017 1.00 39.23 C
ATOM 14338 CD1 ILE C 523 190.777 193.707 201.426 1.00 39.23 C
ATOM 14339 N ASN C 524 185.507 194.399 202.419 1.00 38.17 N
ATOM 14340 CA ASN C 524 184.299 195.196 202.567 1.00 38.17 C
ATOM 14341 C ASN C 524 183.257 194.727 201.560 1.00 38.17 C
ATOM 14342 O ASN C 524 183.323 195.095 200.380 1.00 38.17 O
ATOM 14343 CB ASN C 524 184.599 196.681 202.375 1.00 38.17 C
ATOM 14344 CG ASN C 524 183.439 197.563 202.779 1.00 38.17 C
ATOM 14345 OD1 ASN C 524 182.396 197.075 203.210 1.00 38.17 O
ATOM 14346 ND2 ASN C 524 183.612 198.871 202.639 1.00 38.17 N
ATOM 14347 N PRO C 525 182.287 193.915 201.984 1.00 34.69 N
ATOM 14348 CA PRO C 525 181.307 193.389 201.025 1.00 34.69 C
ATOM 14349 C PRO C 525 180.404 194.455 200.439 1.00 34.69 C
ATOM 14350 O PRO C 525 179.994 194.331 199.279 1.00 34.69 O
ATOM 14351 CB PRO C 525 180.508 192.382 201.861 1.00 34.69 C
ATOM 14352 CG PRO C 525 181.401 192.043 203.005 1.00 34.69 C
ATOM 14353 CD PRO C 525 182.145 193.300 203.309 1.00 34.69 C
ATOM 14354 N SER C 526 180.076 195.497 201.204 1.00 36.64 N
ATOM 14355 CA SER C 526 179.150 196.510 200.712 1.00 36.64 C
ATOM 14356 C SER C 526 179.735 197.276 199.534 1.00 36.64 C
ATOM 14357 O SER C 526 179.039 197.531 198.546 1.00 36.64 O
ATOM 14358 CB SER C 526 178.777 197.469 201.840 1.00 36.64 C
ATOM 14359 OG SER C 526 178.088 196.790 202.874 1.00 36.64 O
ATOM 14360 N ALA C 527 181.011 197.650 199.616 1.00 37.61 N
ATOM 14361 CA ALA C 527 181.616 198.437 198.548 1.00 37.61 C
ATOM 14362 C ALA C 527 181.801 197.605 197.286 1.00 37.61 C

ATOM 14363 O ALA C 527 181.476 198.053 196.182 1.00 37.61 O
ATOM 14364 CB ALA C 527 182.952 199.014 199.013 1.00 37.61 C
ATOM 14365 N ILE C 528 182.331 196.390 197.430 1.00 41.06 N
ATOM 14366 CA ILE C 528 182.579 195.544 196.266 1.00 41.06 C
ATOM 14367 C ILE C 528 181.267 195.151 195.601 1.00 41.06 C
ATOM 14368 O ILE C 528 181.064 195.376 194.402 1.00 41.06 O
ATOM 14369 CB ILE C 528 183.396 194.305 196.667 1.00 41.06 C
ATOM 14370 CG1 ILE C 528 184.740 194.729 197.253 1.00 41.06 C
ATOM 14371 CG2 ILE C 528 183.595 193.397 195.472 1.00 41.06 C
ATOM 14372 CD1 ILE C 528 185.599 195.505 196.286 1.00 41.06 C
ATOM 14373 N LEU C 529 180.358 194.552 196.370 1.00 41.45 N
ATOM 14374 CA LEU C 529 179.100 194.068 195.819 1.00 41.45 C
ATOM 14375 C LEU C 529 178.211 195.183 195.290 1.00 41.45 C
ATOM 14376 O LEU C 529 177.326 194.907 194.475 1.00 41.45 O
ATOM 14377 CB LEU C 529 178.348 193.266 196.879 1.00 41.45 C
ATOM 14378 CG LEU C 529 177.049 192.608 196.429 1.00 41.45 C
ATOM 14379 CD1 LEU C 529 177.334 191.598 195.339 1.00 41.45 C
ATOM 14380 CD2 LEU C 529 176.363 191.945 197.607 1.00 41.45 C
ATOM 14381 N SER C 530 178.414 196.424 195.725 1.00 41.95 N
ATOM 14382 CA SER C 530 177.659 197.557 195.210 1.00 41.95 C
ATOM 14383 C SER C 530 178.389 198.290 194.097 1.00 41.95 C
ATOM 14384 O SER C 530 177.864 199.278 193.577 1.00 41.95 O
ATOM 14385 CB SER C 530 177.331 198.537 196.339 1.00 41.95 C
ATOM 14386 OG SER C 530 176.641 199.670 195.843 1.00 41.95 O
ATOM 14387 N ALA C 531 179.583 197.838 193.725 1.00 45.64 N
ATOM 14388 CA ALA C 531 180.318 198.445 192.627 1.00 45.64 C
ATOM 14389 C ALA C 531 180.107 197.724 191.306 1.00 45.64 C
ATOM 14390 O ALA C 531 180.303 198.330 190.247 1.00 45.64 O
ATOM 14391 CB ALA C 531 181.814 198.487 192.948 1.00 45.64 C
ATOM 14392 N ILE C 532 179.714 196.449 191.341 1.00 52.47 N
ATOM 14393 CA ILE C 532 179.441 195.689 190.129 1.00 52.47 C
ATOM 14394 C ILE C 532 177.968 195.699 189.760 1.00 52.47 C
ATOM 14395 O ILE C 532 177.585 195.095 188.750 1.00 52.47 O
ATOM 14396 CB ILE C 532 179.946 194.240 190.262 1.00 52.47 C

ATOM 14397 CG1 ILE C 532 179.192 193.516 191.374 1.00 52.47 C
ATOM 14398 CG2 ILE C 532 181.433 194.226 190.549 1.00 52.47 C
ATOM 14399 CD1 ILE C 532 179.475 192.036 191.428 1.00 52.47 C
ATOM 14400 N TYR C 533 177.127 196.366 190.552 1.00 57.68 N
ATOM 14401 CA TYR C 533 175.713 196.513 190.245 1.00 57.68 C
ATOM 14402 C TYR C 533 175.293 197.954 190.008 1.00 57.68 C
ATOM 14403 O TYR C 533 174.218 198.179 189.446 1.00 57.68 O
ATOM 14404 CB TYR C 533 174.855 195.931 191.378 1.00 57.68 C
ATOM 14405 CG TYR C 533 174.915 194.427 191.494 1.00 57.68 C
ATOM 14406 CD1 TYR C 533 175.401 193.650 190.455 1.00 57.68 C
ATOM 14407 CD2 TYR C 533 174.488 193.785 192.645 1.00 57.68 C
ATOM 14408 CE1 TYR C 533 175.457 192.275 190.558 1.00 57.68 C
ATOM 14409 CE2 TYR C 533 174.546 192.411 192.759 1.00 57.68 C
ATOM 14410 CZ TYR C 533 175.027 191.662 191.712 1.00 57.68 C
ATOM 14411 OH TYR C 533 175.082 190.293 191.820 1.00 57.68 O
ATOM 14412 N ASN C 534 176.107 198.926 190.418 1.00 55.93 N
ATOM 14413 CA ASN C 534 175.800 200.344 190.248 1.00 55.93 C
ATOM 14414 C ASN C 534 174.519 200.721 190.995 1.00 55.93 C
ATOM 14415 O ASN C 534 173.534 201.182 190.416 1.00 55.93 O
ATOM 14416 CB ASN C 534 175.704 200.708 188.764 1.00 55.93 C
ATOM 14417 CG ASN C 534 177.030 200.564 188.044 1.00 55.93 C
ATOM 14418 OD1 ASN C 534 177.183 199.724 187.158 1.00 55.93 O
ATOM 14419 ND2 ASN C 534 177.999 201.388 188.424 1.00 55.93 N
ATOM 14420 N LYS C 535 174.554 200.513 192.313 1.00 53.88 N
ATOM 14421 CA LYS C 535 173.444 200.878 193.177 1.00 53.88 C
ATOM 14422 C LYS C 535 173.908 200.767 194.617 1.00 53.88 C
ATOM 14423 O LYS C 535 174.702 199.869 194.925 1.00 53.88 O
ATOM 14424 CB LYS C 535 172.230 199.975 192.940 1.00 53.88 C
ATOM 14425 CG LYS C 535 170.993 200.383 193.721 1.00 53.88 C
ATOM 14426 CD LYS C 535 169.844 199.418 193.486 1.00 53.88 C
ATOM 14427 CE LYS C 535 168.905 199.924 192.406 1.00 53.88 C
ATOM 14428 NZ LYS C 535 169.473 199.724 191.046 1.00 53.88 N
ATOM 14429 N PRO C 536 173.451 201.638 195.513 1.00 49.06 N
ATOM 14430 CA PRO C 536 173.842 201.510 196.923 1.00 49.06 C

ATOM 14431 C PRO C 536 173.211 200.291 197.574 1.00 49.06 C
ATOM 14432 O PRO C 536 171.988 200.224 197.726 1.00 49.06 O
ATOM 14433 CB PRO C 536 173.334 202.814 197.546 1.00 49.06 C
ATOM 14434 CG PRO C 536 172.205 203.228 196.670 1.00 49.06 C
ATOM 14435 CD PRO C 536 172.583 202.804 195.281 1.00 49.06 C
ATOM 14436 N ILE C 537 174.038 199.324 197.963 1.00 43.16 N
ATOM 14437 CA ILE C 537 173.573 198.057 198.511 1.00 43.16 C
ATOM 14438 C ILE C 537 174.293 197.792 199.824 1.00 43.16 C
ATOM 14439 O ILE C 537 175.485 198.086 199.960 1.00 43.16 O
ATOM 14440 CB ILE C 537 173.804 196.895 197.523 1.00 43.16 C
ATOM 14441 CG1 ILE C 537 172.950 197.082 196.271 1.00 43.16 C
ATOM 14442 CG2 ILE C 537 173.498 195.567 198.175 1.00 43.16 C
ATOM 14443 CD1 ILE C 537 173.288 196.115 195.164 1.00 43.16 C
ATOM 14444 N ALA C 538 173.568 197.234 200.788 1.00 39.62 N
ATOM 14445 CA ALA C 538 174.118 196.856 202.083 1.00 39.62 C
ATOM 14446 C ALA C 538 174.101 195.339 202.195 1.00 39.62 C
ATOM 14447 O ALA C 538 173.027 194.730 202.232 1.00 39.62 O
ATOM 14448 CB ALA C 538 173.324 197.489 203.224 1.00 39.62 C
ATOM 14449 N ALA C 539 175.283 194.737 202.249 1.00 38.06 N
ATOM 14450 CA ALA C 539 175.428 193.293 202.322 1.00 38.06 C
ATOM 14451 C ALA C 539 176.129 192.907 203.616 1.00 38.06 C
ATOM 14452 O ALA C 539 176.624 193.755 204.362 1.00 38.06 O
ATOM 14453 CB ALA C 539 176.205 192.756 201.116 1.00 38.06 C
ATOM 14454 N ARG C 540 176.169 191.604 203.876 1.00 37.03 N
ATOM 14455 CA ARG C 540 176.779 191.078 205.087 1.00 37.03 C
ATOM 14456 C ARG C 540 176.903 189.572 204.952 1.00 37.03 C
ATOM 14457 O ARG C 540 175.994 188.920 204.436 1.00 37.03 O
ATOM 14458 CB ARG C 540 175.947 191.429 206.326 1.00 37.03 C
ATOM 14459 CG ARG C 540 176.550 190.946 207.626 1.00 37.03 C
ATOM 14460 CD ARG C 540 175.680 191.319 208.811 1.00 37.03 C
ATOM 14461 NE ARG C 540 174.383 190.652 208.778 1.00 37.03 N
ATOM 14462 CZ ARG C 540 174.171 189.414 209.210 1.00 37.03 C
ATOM 14463 NH1 ARG C 540 172.958 188.886 209.146 1.00 37.03 N
ATOM 14464 NH2 ARG C 540 175.172 188.700 209.703 1.00 37.03 N

ATOM 14465 N PHE C 541 178.025 189.026 205.413 1.00 37.08 N
ATOM 14466 CA PHE C 541 178.201 187.583 205.367 1.00 37.08 C
ATOM 14467 C PHE C 541 177.182 186.900 206.264 1.00 37.08 C
ATOM 14468 O PHE C 541 176.789 187.427 207.307 1.00 37.08 O
ATOM 14469 CB PHE C 541 179.614 187.192 205.786 1.00 37.08 C
ATOM 14470 CG PHE C 541 180.657 187.547 204.779 1.00 37.08 C
ATOM 14471 CD1 PHE C 541 180.837 186.766 203.652 1.00 37.08 C
ATOM 14472 CD2 PHE C 541 181.464 188.653 204.957 1.00 37.08 C
ATOM 14473 CE1 PHE C 541 181.795 187.086 202.719 1.00 37.08 C
ATOM 14474 CE2 PHE C 541 182.426 188.978 204.028 1.00 37.08 C
ATOM 14475 CZ PHE C 541 182.592 188.193 202.906 1.00 37.08 C
ATOM 14476 N MET C 542 176.755 185.716 205.846 1.00 36.35 N
ATOM 14477 CA MET C 542 175.733 184.941 206.532 1.00 36.35 C
ATOM 14478 C MET C 542 176.198 183.498 206.667 1.00 36.35 C
ATOM 14479 O MET C 542 175.485 182.542 206.360 1.00 36.35 O
ATOM 14480 CB MET C 542 174.406 185.075 205.790 1.00 36.35 C
ATOM 14481 CG MET C 542 173.218 184.456 206.489 1.00 36.35 C
ATOM 14482 SD MET C 542 171.660 184.865 205.679 1.00 36.35 S
ATOM 14483 CE MET C 542 171.770 183.889 204.184 1.00 36.35 C
ATOM 14484 N GLY C 543 177.429 183.340 207.144 1.00 36.73 N
ATOM 14485 CA GLY C 543 178.111 182.063 207.184 1.00 36.73 C
ATOM 14486 C GLY C 543 178.996 181.833 205.977 1.00 36.73 C
ATOM 14487 O GLY C 543 180.222 181.909 206.089 1.00 36.73 O
ATOM 14488 N ASP C 544 178.397 181.567 204.817 1.00 37.86 N
ATOM 14489 CA ASP C 544 179.158 181.454 203.579 1.00 37.86 C
ATOM 14490 C ASP C 544 178.440 182.083 202.394 1.00 37.86 C
ATOM 14491 O ASP C 544 178.894 181.912 201.256 1.00 37.86 O
ATOM 14492 CB ASP C 544 179.467 179.989 203.253 1.00 37.86 C
ATOM 14493 CG ASP C 544 180.545 179.405 204.137 1.00 37.86 C
ATOM 14494 OD1 ASP C 544 181.459 180.151 204.541 1.00 37.86 O
ATOM 14495 OD2 ASP C 544 180.479 178.194 204.429 1.00 37.86 O
ATOM 14496 N VAL C 545 177.345 182.804 202.617 1.00 35.98 N
ATOM 14497 CA VAL C 545 176.503 183.304 201.539 1.00 35.98 C
ATOM 14498 C VAL C 545 176.104 184.733 201.873 1.00 35.98 C

ATOM 14499 O VAL C 545 175.521 184.983 202.933 1.00 35.98 O
ATOM 14500 CB VAL C 545 175.251 182.436 201.337 1.00 35.98 C
ATOM 14501 CG1 VAL C 545 174.369 183.034 200.266 1.00 35.98 C
ATOM 14502 CG2 VAL C 545 175.645 181.017 200.979 1.00 35.98 C
ATOM 14503 N LEU C 546 176.419 185.666 200.980 1.00 37.57 N
ATOM 14504 CA LEU C 546 176.082 187.063 201.210 1.00 37.57 C
ATOM 14505 C LEU C 546 174.572 187.251 201.286 1.00 37.57 C
ATOM 14506 O LEU C 546 173.800 186.547 200.630 1.00 37.57 O
ATOM 14507 CB LEU C 546 176.655 187.936 200.097 1.00 37.57 C
ATOM 14508 CG LEU C 546 178.175 187.999 199.997 1.00 37.57 C
ATOM 14509 CD1 LEU C 546 178.583 188.785 198.769 1.00 37.57 C
ATOM 14510 CD2 LEU C 546 178.757 188.620 201.247 1.00 37.57 C
ATOM 14511 N GLY C 547 174.152 188.217 202.097 1.00 37.23 N
ATOM 14512 CA GLY C 547 172.749 188.558 202.205 1.00 37.23 C
ATOM 14513 C GLY C 547 172.465 189.962 201.717 1.00 37.23 C
ATOM 14514 O GLY C 547 172.869 190.939 202.351 1.00 37.23 O
ATOM 14515 N LEU C 548 171.768 190.076 200.592 1.00 39.69 N
ATOM 14516 CA LEU C 548 171.512 191.378 200.002 1.00 39.69 C
ATOM 14517 C LEU C 548 170.403 192.109 200.751 1.00 39.69 C
ATOM 14518 O LEU C 548 169.508 191.504 201.345 1.00 39.69 O
ATOM 14519 CB LEU C 548 171.126 191.236 198.530 1.00 39.69 C
ATOM 14520 CG LEU C 548 172.248 191.118 197.503 1.00 39.69 C
ATOM 14521 CD1 LEU C 548 173.068 192.387 197.475 1.00 39.69 C
ATOM 14522 CD2 LEU C 548 173.125 189.923 197.803 1.00 39.69 C
ATOM 14523 N ALA C 549 170.478 193.435 200.716 1.00 40.89 N
ATOM 14524 CA ALA C 549 169.423 194.302 201.216 1.00 40.89 C
ATOM 14525 C ALA C 549 169.818 195.733 200.895 1.00 40.89 C
ATOM 14526 O ALA C 549 171.005 196.064 200.832 1.00 40.89 O
ATOM 14527 CB ALA C 549 169.198 194.132 202.719 1.00 40.89 C
ATOM 14528 N SER C 550 168.813 196.580 200.700 1.00 46.28 N
ATOM 14529 CA SER C 550 169.064 197.992 200.451 1.00 46.28 C
ATOM 14530 C SER C 550 169.217 198.703 201.794 1.00 46.28 C
ATOM 14531 O SER C 550 169.309 198.069 202.848 1.00 46.28 O
ATOM 14532 CB SER C 550 167.964 198.587 199.579 1.00 46.28 C

ATOM 14533 OG SER C 550 166.721 198.585 200.249 1.00 46.28 O
ATOM 14534 N CYS C 551 169.239 200.031 201.776 1.00 42.08 N
ATOM 14535 CA CYS C 551 169.665 200.813 202.928 1.00 42.08 C
ATOM 14536 C CYS C 551 168.509 201.620 203.499 1.00 42.08 C
ATOM 14537 O CYS C 551 167.639 202.084 202.756 1.00 42.08 O
ATOM 14538 CB CYS C 551 170.815 201.736 202.541 1.00 42.08 C
ATOM 14539 SG CYS C 551 172.290 200.836 202.044 1.00 42.08 S
ATOM 14540 N VAL C 552 168.508 201.780 204.824 1.00 35.61 N
ATOM 14541 CA VAL C 552 167.532 202.639 205.471 1.00 35.61 C
ATOM 14542 C VAL C 552 167.782 204.083 205.037 1.00 35.61 C
ATOM 14543 O VAL C 552 168.868 204.442 204.568 1.00 35.61 O
ATOM 14544 CB VAL C 552 167.628 202.495 206.999 1.00 35.61 C
ATOM 14545 CG1 VAL C 552 166.493 203.229 207.703 1.00 35.61 C
ATOM 14546 CG2 VAL C 552 167.683 201.034 207.406 1.00 35.61 C
ATOM 14547 N THR C 553 166.762 204.921 205.199 1.00 33.50 N
ATOM 14548 CA THR C 553 166.864 206.348 204.913 1.00 33.50 C
ATOM 14549 C THR C 553 166.443 207.126 206.151 1.00 33.50 C
ATOM 14550 O THR C 553 165.302 207.002 206.607 1.00 33.50 O
ATOM 14551 CB THR C 553 166.000 206.738 203.713 1.00 33.50 C
ATOM 14552 OG1 THR C 553 166.445 206.034 202.548 1.00 33.50 O
ATOM 14553 CG2 THR C 553 166.093 208.231 203.458 1.00 33.50 C
ATOM 14554 N ILE C 554 167.361 207.928 206.688 1.00 37.21 N
ATOM 14555 CA ILE C 554 167.109 208.709 207.895 1.00 37.21 C
ATOM 14556 C ILE C 554 166.322 209.943 207.475 1.00 37.21 C
ATOM 14557 O ILE C 554 166.156 210.196 206.278 1.00 37.21 O
ATOM 14558 CB ILE C 554 168.420 209.074 208.616 1.00 37.21 C
ATOM 14559 CG1 ILE C 554 169.270 207.828 208.824 1.00 37.21 C
ATOM 14560 CG2 ILE C 554 168.153 209.631 210.002 1.00 37.21 C
ATOM 14561 CD1 ILE C 554 170.265 207.595 207.732 1.00 37.21 C
ATOM 14562 N ASN C 555 165.824 210.709 208.455 1.00 43.89 N
ATOM 14563 CA ASN C 555 164.875 211.789 208.202 1.00 43.89 C
ATOM 14564 C ASN C 555 165.381 212.809 207.185 1.00 43.89 C
ATOM 14565 O ASN C 555 164.564 213.504 206.571 1.00 43.89 O
ATOM 14566 CB ASN C 555 164.540 212.517 209.504 1.00 43.89 C

ATOM 14567 CG ASN C 555 163.210 213.228 209.431 1.00 43.89 C
ATOM 14568 OD1 ASN C 555 162.465 213.039 208.470 1.00 43.89 O
ATOM 14569 ND2 ASN C 555 162.904 214.058 210.427 1.00 43.89 N
ATOM 14570 N GLN C 556 166.700 212.938 207.021 1.00 42.77 N
ATOM 14571 CA GLN C 556 167.323 213.755 205.981 1.00 42.77 C
ATOM 14572 C GLN C 556 167.233 215.251 206.260 1.00 42.77 C
ATOM 14573 O GLN C 556 167.780 216.056 205.501 1.00 42.77 O
ATOM 14574 CB GLN C 556 166.702 213.471 204.610 1.00 42.77 C
ATOM 14575 CG GLN C 556 166.878 212.058 204.100 1.00 42.77 C
ATOM 14576 CD GLN C 556 168.322 211.712 203.832 1.00 42.77 C
ATOM 14577 OE1 GLN C 556 169.091 212.539 203.347 1.00 42.77 O
ATOM 14578 NE2 GLN C 556 168.700 210.481 204.147 1.00 42.77 N
ATOM 14579 N THR C 557 166.551 215.642 207.336 1.00 46.91 N
ATOM 14580 CA THR C 557 166.358 217.059 207.609 1.00 46.91 C
ATOM 14581 C THR C 557 166.564 217.422 209.073 1.00 46.91 C
ATOM 14582 O THR C 557 166.250 218.554 209.462 1.00 46.91 O
ATOM 14583 CB THR C 557 164.962 217.503 207.173 1.00 46.91 C
ATOM 14584 OG1 THR C 557 164.847 218.923 207.321 1.00 46.91 O
ATOM 14585 CG2 THR C 557 163.907 216.827 208.025 1.00 46.91 C
ATOM 14586 N SER C 558 167.075 216.508 209.898 1.00 44.40 N
ATOM 14587 CA SER C 558 167.324 216.804 211.302 1.00 44.40 C
ATOM 14588 C SER C 558 168.655 216.225 211.760 1.00 44.40 C
ATOM 14589 O SER C 558 168.818 215.889 212.937 1.00 44.40 O
ATOM 14590 CB SER C 558 166.193 216.279 212.186 1.00 44.40 C
ATOM 14591 OG SER C 558 166.465 216.521 213.554 1.00 44.40 O
ATOM 14592 N VAL C 559 169.610 216.102 210.846 1.00 36.99 N
ATOM 14593 CA VAL C 559 170.937 215.578 211.140 1.00 36.99 C
ATOM 14594 C VAL C 559 171.891 216.745 211.334 1.00 36.99 C
ATOM 14595 O VAL C 559 171.857 217.722 210.575 1.00 36.99 O
ATOM 14596 CB VAL C 559 171.421 214.648 210.014 1.00 36.99 C
ATOM 14597 CG1 VAL C 559 172.850 214.226 210.260 1.00 36.99 C
ATOM 14598 CG2 VAL C 559 170.515 213.437 209.913 1.00 36.99 C
ATOM 14599 N LYS C 560 172.754 216.647 212.347 1.00 32.30 N
ATOM 14600 CA LYS C 560 173.629 217.756 212.739 1.00 32.30 C

ATOM 14601 C LYS C 560 175.005 217.191 213.084 1.00 32.30 C
ATOM 14602 O LYS C 560 175.226 216.705 214.195 1.00 32.30 O
ATOM 14603 CB LYS C 560 173.030 218.525 213.908 1.00 32.30 C
ATOM 14604 CG LYS C 560 171.742 219.251 213.569 1.00 32.30 C
ATOM 14605 CD LYS C 560 171.244 220.075 214.742 1.00 32.30 C
ATOM 14606 CE LYS C 560 170.653 219.181 215.820 1.00 32.30 C
ATOM 14607 NZ LYS C 560 170.028 219.961 216.924 1.00 32.30 N
ATOM 14608 N VAL C 561 175.929 217.265 212.128 1.00 29.89 N
ATOM 14609 CA VAL C 561 177.295 216.816 212.370 1.00 29.89 C
ATOM 14610 C VAL C 561 177.955 217.758 213.368 1.00 29.89 C
ATOM 14611 O VAL C 561 178.078 218.962 213.118 1.00 29.89 O
ATOM 14612 CB VAL C 561 178.092 216.752 211.063 1.00 29.89 C
ATOM 14613 CG1 VAL C 561 179.538 216.420 211.355 1.00 29.89 C
ATOM 14614 CG2 VAL C 561 177.488 215.724 210.131 1.00 29.89 C
ATOM 14615 N LEU C 562 178.389 217.212 214.499 1.00 29.79 N
ATOM 14616 CA LEU C 562 179.016 218.031 215.526 1.00 29.79 C
ATOM 14617 C LEU C 562 180.380 218.521 215.062 1.00 29.79 C
ATOM 14618 O LEU C 562 181.143 217.785 214.433 1.00 29.79 O
ATOM 14619 CB LEU C 562 179.157 217.242 216.825 1.00 29.79 C
ATOM 14620 CG LEU C 562 177.846 216.848 217.505 1.00 29.79 C
ATOM 14621 CD1 LEU C 562 178.111 216.003 218.735 1.00 29.79 C
ATOM 14622 CD2 LEU C 562 177.042 218.082 217.863 1.00 29.79 C
ATOM 14623 N ARG C 563 180.685 219.775 215.381 1.00 39.57 N
ATOM 14624 CA ARG C 563 181.953 220.395 214.999 1.00 39.57 C
ATOM 14625 C ARG C 563 183.013 220.215 216.081 1.00 39.57 C
ATOM 14626 O ARG C 563 183.670 221.162 216.510 1.00 39.57 O
ATOM 14627 CB ARG C 563 181.730 221.869 214.683 1.00 39.57 C
ATOM 14628 CG ARG C 563 181.276 222.700 215.870 1.00 39.57 C
ATOM 14629 CD ARG C 563 181.068 224.155 215.489 1.00 39.57 C
ATOM 14630 NE ARG C 563 179.968 224.320 214.544 1.00 39.57 N
ATOM 14631 CZ ARG C 563 180.121 224.672 213.273 1.00 39.57 C
ATOM 14632 NH1 ARG C 563 179.061 224.796 212.486 1.00 39.57 N
ATOM 14633 NH2 ARG C 563 181.333 224.906 212.789 1.00 39.57 N
ATOM 14634 N ASP C 564 183.203 218.975 216.519 1.00 39.46 N

ATOM 14635 CA ASP C 564 184.170 218.685 217.567 1.00 39.46 C
ATOM 14636 C ASP C 564 184.428 217.187 217.579 1.00 39.46 C
ATOM 14637 O ASP C 564 183.551 216.394 217.233 1.00 39.46 O
ATOM 14638 CB ASP C 564 183.666 219.157 218.935 1.00 39.46 C
ATOM 14639 CG ASP C 564 184.741 219.116 219.996 1.00 39.46 C
ATOM 14640 OD1 ASP C 564 185.877 218.707 219.681 1.00 39.46 O
ATOM 14641 OD2 ASP C 564 184.449 219.495 221.150 1.00 39.46 O
ATOM 14642 N MET C 565 185.641 216.812 217.980 1.00 38.49 N
ATOM 14643 CA MET C 565 186.037 215.414 217.993 1.00 38.49 C
ATOM 14644 C MET C 565 186.756 214.996 219.266 1.00 38.49 C
ATOM 14645 O MET C 565 187.155 213.832 219.373 1.00 38.49 O
ATOM 14646 CB MET C 565 186.925 215.100 216.781 1.00 38.49 C
ATOM 14647 CG MET C 565 186.198 215.188 215.454 1.00 38.49 C
ATOM 14648 SD MET C 565 187.278 214.917 214.038 1.00 38.49 S
ATOM 14649 CE MET C 565 187.618 213.170 214.200 1.00 38.49 C
ATOM 14650 N ASN C 566 186.943 215.899 220.223 1.00 38.14 N
ATOM 14651 CA ASN C 566 187.553 215.536 221.493 1.00 38.14 C
ATOM 14652 C ASN C 566 186.517 214.882 222.396 1.00 38.14 C
ATOM 14653 O ASN C 566 185.412 215.406 222.565 1.00 38.14 O
ATOM 14654 CB ASN C 566 188.142 216.769 222.175 1.00 38.14 C
ATOM 14655 CG ASN C 566 189.369 217.296 221.467 1.00 38.14 C
ATOM 14656 OD1 ASN C 566 190.229 216.530 221.039 1.00 38.14 O
ATOM 14657 ND2 ASN C 566 189.458 218.614 221.339 1.00 38.14 N
ATOM 14658 N VAL C 567 186.870 213.732 222.971 1.00 43.83 N
ATOM 14659 CA VAL C 567 185.989 213.092 223.940 1.00 43.83 C
ATOM 14660 C VAL C 567 185.869 214.001 225.152 1.00 43.83 C
ATOM 14661 O VAL C 567 186.875 214.393 225.754 1.00 43.83 O
ATOM 14662 CB VAL C 567 186.513 211.708 224.321 1.00 43.83 C
ATOM 14663 CG1 VAL C 567 185.647 211.104 225.407 1.00 43.83 C
ATOM 14664 CG2 VAL C 567 186.545 210.806 223.105 1.00 43.83 C
ATOM 14665 N LYS C 568 184.631 214.340 225.518 1.00 48.87 N
ATOM 14666 CA LYS C 568 184.410 215.402 226.494 1.00 48.87 C
ATOM 14667 C LYS C 568 184.932 215.040 227.878 1.00 48.87 C
ATOM 14668 O LYS C 568 185.243 215.934 228.672 1.00 48.87 O

ATOM 14669 CB LYS C 568 182.923 215.740 226.567 1.00 48.87 C
ATOM 14670 CG LYS C 568 182.601 216.880 227.513 1.00 48.87 C
ATOM 14671 CD LYS C 568 181.118 217.197 227.503 1.00 48.87 C
ATOM 14672 CE LYS C 568 180.806 218.391 228.386 1.00 48.87 C
ATOM 14673 NZ LYS C 568 181.034 218.082 229.823 1.00 48.87 N
ATOM 14674 N GLU C 569 185.036 213.751 228.192 1.00 51.50 N
ATOM 14675 CA GLU C 569 185.420 213.335 229.536 1.00 51.50 C
ATOM 14676 C GLU C 569 186.854 212.831 229.629 1.00 51.50 C
ATOM 14677 O GLU C 569 187.555 213.162 230.589 1.00 51.50 O
ATOM 14678 CB GLU C 569 184.461 212.256 230.050 1.00 51.50 C
ATOM 14679 CG GLU C 569 184.476 210.963 229.255 1.00 51.50 C
ATOM 14680 CD GLU C 569 183.468 209.958 229.768 1.00 51.50 C
ATOM 14681 OE1 GLU C 569 182.751 210.278 230.739 1.00 51.50 O
ATOM 14682 OE2 GLU C 569 183.388 208.849 229.199 1.00 51.50 O
ATOM 14683 N SER C 570 187.315 212.041 228.660 1.00 49.81 N
ATOM 14684 CA SER C 570 188.638 211.440 228.734 1.00 49.81 C
ATOM 14685 C SER C 570 189.674 212.408 228.181 1.00 49.81 C
ATOM 14686 O SER C 570 189.683 212.659 226.967 1.00 49.81 O
ATOM 14687 CB SER C 570 188.673 210.129 227.965 1.00 49.81 C
ATOM 14688 OG SER C 570 187.804 209.179 228.552 1.00 49.81 O
ATOM 14689 N PRO C 571 190.557 212.968 229.011 1.00 48.77 N
ATOM 14690 CA PRO C 571 191.603 213.865 228.501 1.00 48.77 C
ATOM 14691 C PRO C 571 192.646 213.069 227.731 1.00 48.77 C
ATOM 14692 O PRO C 571 193.194 212.089 228.238 1.00 48.77 O
ATOM 14693 CB PRO C 571 192.192 214.479 229.776 1.00 48.77 C
ATOM 14694 CG PRO C 571 191.953 213.444 230.818 1.00 48.77 C
ATOM 14695 CD PRO C 571 190.640 212.795 230.471 1.00 48.77 C
ATOM 14696 N GLY C 572 192.918 213.493 226.500 1.00 46.21 N
ATOM 14697 CA GLY C 572 193.873 212.797 225.663 1.00 46.21 C
ATOM 14698 C GLY C 572 193.245 211.600 224.984 1.00 46.21 C
ATOM 14699 O GLY C 572 193.847 210.526 224.909 1.00 46.21 O
ATOM 14700 N ARG C 573 192.025 211.778 224.485 1.00 44.16 N
ATOM 14701 CA ARG C 573 191.296 210.678 223.865 1.00 44.16 C
ATOM 14702 C ARG C 573 190.311 211.288 222.880 1.00 44.16 C

ATOM 14703 O ARG C 573 189.348 211.941 223.289 1.00 44.16 O
ATOM 14704 CB ARG C 573 190.596 209.837 224.922 1.00 44.16 C
ATOM 14705 CG ARG C 573 189.913 208.605 224.389 1.00 44.16 C
ATOM 14706 CD ARG C 573 190.919 207.718 223.693 1.00 44.16 C
ATOM 14707 NE ARG C 573 192.027 207.355 224.569 1.00 44.16 N
ATOM 14708 CZ ARG C 573 193.131 206.742 224.153 1.00 44.16 C
ATOM 14709 NH1 ARG C 573 193.258 206.408 222.879 1.00 44.16 N
ATOM 14710 NH2 ARG C 573 194.101 206.460 225.009 1.00 44.16 N
ATOM 14711 N CYS C 574 190.559 211.085 221.593 1.00 39.44 N
ATOM 14712 CA CYS C 574 189.859 211.797 220.541 1.00 39.44 C
ATOM 14713 C CYS C 574 189.116 210.803 219.658 1.00 39.44 C
ATOM 14714 O CYS C 574 189.548 209.663 219.479 1.00 39.44 O
ATOM 14715 CB CYS C 574 190.852 212.621 219.713 1.00 39.44 C
ATOM 14716 SG CYS C 574 191.823 213.821 220.688 1.00 39.44 S
ATOM 14717 N TYR C 575 187.982 211.238 219.109 1.00 36.31 N
ATOM 14718 CA TYR C 575 187.234 210.386 218.196 1.00 36.31 C
ATOM 14719 C TYR C 575 188.029 210.168 216.913 1.00 36.31 C
ATOM 14720 O TYR C 575 189.088 210.759 216.691 1.00 36.31 O
ATOM 14721 CB TYR C 575 185.873 210.989 217.862 1.00 36.31 C
ATOM 14722 CG TYR C 575 184.899 211.044 219.009 1.00 36.31 C
ATOM 14723 CD1 TYR C 575 184.276 209.898 219.468 1.00 36.31 C
ATOM 14724 CD2 TYR C 575 184.564 212.250 219.598 1.00 36.31 C
ATOM 14725 CE1 TYR C 575 183.379 209.946 220.507 1.00 36.31 C
ATOM 14726 CE2 TYR C 575 183.664 212.308 220.634 1.00 36.31 C
ATOM 14727 CZ TYR C 575 183.074 211.154 221.084 1.00 36.31 C
ATOM 14728 OH TYR C 575 182.173 211.205 222.119 1.00 36.31 O
ATOM 14729 N SER C 576 187.494 209.314 216.043 1.00 37.30 N
ATOM 14730 CA SER C 576 188.109 209.045 214.755 1.00 37.30 C
ATOM 14731 C SER C 576 187.250 209.466 213.575 1.00 37.30 C
ATOM 14732 O SER C 576 187.758 209.508 212.450 1.00 37.30 O
ATOM 14733 CB SER C 576 188.442 207.552 214.618 1.00 37.30 C
ATOM 14734 OG SER C 576 188.999 207.271 213.347 1.00 37.30 O
ATOM 14735 N ARG C 577 185.976 209.778 213.793 1.00 35.45 N
ATOM 14736 CA ARG C 577 185.092 210.273 212.750 1.00 35.45 C

ATOM 14737 C ARG C 577 184.061 211.178 213.397 1.00 35.45 C
ATOM 14738 O ARG C 577 183.750 211.010 214.582 1.00 35.45 O
ATOM 14739 CB ARG C 577 184.402 209.129 211.996 1.00 35.45 C
ATOM 14740 CG ARG C 577 185.352 208.296 211.166 1.00 35.45 C
ATOM 14741 CD ARG C 577 184.621 207.226 210.392 1.00 35.45 C
ATOM 14742 NE ARG C 577 185.549 206.385 209.647 1.00 35.45 N
ATOM 14743 CZ ARG C 577 185.993 206.670 208.428 1.00 35.45 C
ATOM 14744 NH1 ARG C 577 185.597 207.779 207.820 1.00 35.45 N
ATOM 14745 NH2 ARG C 577 186.837 205.850 207.819 1.00 35.45 N
ATOM 14746 N PRO C 578 183.524 212.147 212.660 1.00 29.91 N
ATOM 14747 CA PRO C 578 182.613 213.128 213.266 1.00 29.91 C
ATOM 14748 C PRO C 578 181.351 212.463 213.788 1.00 29.91 C
ATOM 14749 O PRO C 578 180.633 211.789 213.048 1.00 29.91 O
ATOM 14750 CB PRO C 578 182.308 214.082 212.107 1.00 29.91 C
ATOM 14751 CG PRO C 578 183.436 213.894 211.150 1.00 29.91 C
ATOM 14752 CD PRO C 578 183.804 212.451 211.251 1.00 29.91 C
ATOM 14753 N VAL C 579 181.078 212.659 215.077 1.00 34.14 N
ATOM 14754 CA VAL C 579 179.886 212.074 215.675 1.00 34.14 C
ATOM 14755 C VAL C 579 178.652 212.808 215.169 1.00 34.14 C
ATOM 14756 O VAL C 579 178.614 214.045 215.125 1.00 34.14 O
ATOM 14757 CB VAL C 579 179.979 212.112 217.208 1.00 34.14 C
ATOM 14758 CG1 VAL C 579 180.023 213.540 217.697 1.00 34.14 C
ATOM 14759 CG2 VAL C 579 178.809 211.369 217.825 1.00 34.14 C
ATOM 14760 N VAL C 580 177.635 212.044 214.779 1.00 21.09 N
ATOM 14761 CA VAL C 580 176.436 212.578 214.148 1.00 21.09 C
ATOM 14762 C VAL C 580 175.235 212.251 215.021 1.00 21.09 C
ATOM 14763 O VAL C 580 175.199 211.216 215.693 1.00 21.09 O
ATOM 14764 CB VAL C 580 176.252 212.001 212.727 1.00 21.09 C
ATOM 14765 CG1 VAL C 580 174.983 212.519 212.093 1.00 21.09 C
ATOM 14766 CG2 VAL C 580 177.453 212.325 211.868 1.00 21.09 C
ATOM 14767 N ILE C 581 174.247 213.136 215.008 1.00 32.29 N
ATOM 14768 CA ILE C 581 172.999 212.937 215.741 1.00 32.29 C
ATOM 14769 C ILE C 581 171.870 212.960 214.715 1.00 32.29 C
ATOM 14770 O ILE C 581 171.326 214.010 214.364 1.00 32.29 O

ATOM 14771 CB ILE C 581 172.795 213.977 216.846 1.00 32.29 C
ATOM 14772 CG1 ILE C 581 172.902 215.400 216.300 1.00 32.29 C
ATOM 14773 CG2 ILE C 581 173.811 213.781 217.945 1.00 32.29 C
ATOM 14774 CD1 ILE C 581 172.479 216.460 217.284 1.00 32.29 C
ATOM 14775 N PHE C 582 171.507 211.784 214.214 1.00 36.13 N
ATOM 14776 CA PHE C 582 170.419 211.661 213.259 1.00 36.13 C
ATOM 14777 C PHE C 582 169.123 211.346 214.003 1.00 36.13 C
ATOM 14778 O PHE C 582 169.050 211.430 215.231 1.00 36.13 O
ATOM 14779 CB PHE C 582 170.753 210.609 212.204 1.00 36.13 C
ATOM 14780 CG PHE C 582 170.934 209.230 212.757 1.00 36.13 C
ATOM 14781 CD1 PHE C 582 172.173 208.804 213.189 1.00 36.13 C
ATOM 14782 CD2 PHE C 582 169.871 208.354 212.833 1.00 36.13 C
ATOM 14783 CE1 PHE C 582 172.347 207.538 213.695 1.00 36.13 C
ATOM 14784 CE2 PHE C 582 170.040 207.085 213.339 1.00 36.13 C
ATOM 14785 CZ PHE C 582 171.280 206.677 213.770 1.00 36.13 C
ATOM 14786 N ASN C 583 168.082 210.983 213.261 1.00 41.61 N
ATOM 14787 CA ASN C 583 166.786 210.689 213.865 1.00 41.61 C
ATOM 14788 C ASN C 583 165.966 209.889 212.869 1.00 41.61 C
ATOM 14789 O ASN C 583 165.738 210.351 211.746 1.00 41.61 O
ATOM 14790 CB ASN C 583 166.068 211.978 214.250 1.00 41.61 C
ATOM 14791 CG ASN C 583 164.842 211.729 215.094 1.00 41.61 C
ATOM 14792 OD1 ASN C 583 164.495 210.586 215.385 1.00 41.61 O
ATOM 14793 ND2 ASN C 583 164.177 212.803 215.498 1.00 41.61 N
ATOM 14794 N PHE C 584 165.526 208.700 213.271 1.00 39.86 N
ATOM 14795 CA PHE C 584 164.736 207.862 212.383 1.00 39.86 C
ATOM 14796 C PHE C 584 163.408 208.532 212.047 1.00 39.86 C
ATOM 14797 O PHE C 584 162.978 209.487 212.697 1.00 39.86 O
ATOM 14798 CB PHE C 584 164.480 206.494 213.011 1.00 39.86 C
ATOM 14799 CG PHE C 584 165.695 205.624 213.084 1.00 39.86 C
ATOM 14800 CD1 PHE C 584 166.142 204.949 211.965 1.00 39.86 C
ATOM 14801 CD2 PHE C 584 166.384 205.468 214.271 1.00 39.86 C
ATOM 14802 CE1 PHE C 584 167.257 204.143 212.024 1.00 39.86 C
ATOM 14803 CE2 PHE C 584 167.501 204.661 214.334 1.00 39.86 C
ATOM 14804 CZ PHE C 584 167.936 203.998 213.208 1.00 39.86 C

ATOM 14805 N ALA C 585 162.760 208.015 211.006 1.00 40.78 N
ATOM 14806 CA ALA C 585 161.486 208.567 210.570 1.00 40.78 C
ATOM 14807 C ALA C 585 160.427 208.407 211.654 1.00 40.78 C
ATOM 14808 O ALA C 585 160.432 207.440 212.420 1.00 40.78 O
ATOM 14809 CB ALA C 585 161.027 207.886 209.282 1.00 40.78 C
ATOM 14810 N ASN C 586 159.534 209.397 211.733 1.00 47.64 N
ATOM 14811 CA ASN C 586 158.386 209.401 212.638 1.00 47.64 C
ATOM 14812 C ASN C 586 158.757 209.632 214.097 1.00 47.64 C
ATOM 14813 O ASN C 586 157.869 209.808 214.937 1.00 47.64 O
ATOM 14814 CB ASN C 586 157.619 208.081 212.568 1.00 47.64 C
ATOM 14815 CG ASN C 586 156.942 207.848 211.244 1.00 47.64 C
ATOM 14816 OD1 ASN C 586 157.332 206.959 210.491 1.00 47.64 O
ATOM 14817 ND2 ASN C 586 155.905 208.620 210.958 1.00 47.64 N
ATOM 14818 N SER C 587 160.043 209.642 214.420 1.00 47.46 N
ATOM 14819 CA SER C 587 160.467 209.562 215.808 1.00 47.46 C
ATOM 14820 C SER C 587 160.785 210.942 216.371 1.00 47.46 C
ATOM 14821 O SER C 587 160.839 211.946 215.659 1.00 47.46 O
ATOM 14822 CB SER C 587 161.679 208.637 215.944 1.00 47.46 C
ATOM 14823 OG SER C 587 162.811 209.179 215.289 1.00 47.46 O
ATOM 14824 N SER C 588 160.991 210.973 217.688 1.00 50.70 N
ATOM 14825 CA SER C 588 161.360 212.200 218.381 1.00 50.70 C
ATOM 14826 C SER C 588 162.433 211.945 219.431 1.00 50.70 C
ATOM 14827 O SER C 588 162.585 212.749 220.358 1.00 50.70 O
ATOM 14828 CB SER C 588 160.135 212.842 219.035 1.00 50.70 C
ATOM 14829 OG SER C 588 160.496 214.004 219.759 1.00 50.70 O
ATOM 14830 N TYR C 589 163.175 210.849 219.311 1.00 50.66 N
ATOM 14831 CA TYR C 589 164.179 210.443 220.290 1.00 50.66 C
ATOM 14832 C TYR C 589 165.515 210.374 219.560 1.00 50.66 C
ATOM 14833 O TYR C 589 165.741 209.472 218.748 1.00 50.66 O
ATOM 14834 CB TYR C 589 163.805 209.107 220.926 1.00 50.66 C
ATOM 14835 CG TYR C 589 162.568 209.165 221.801 1.00 50.66 C
ATOM 14836 CD1 TYR C 589 162.101 210.372 222.306 1.00 50.66 C
ATOM 14837 CD2 TYR C 589 161.853 208.016 222.102 1.00 50.66 C
ATOM 14838 CE1 TYR C 589 160.968 210.426 223.099 1.00 50.66 C

ATOM 14839 CE2 TYR C 589 160.719 208.059 222.889 1.00 50.66 C
ATOM 14840 CZ TYR C 589 160.281 209.266 223.386 1.00 50.66 C
ATOM 14841 OH TYR C 589 159.153 209.312 224.172 1.00 50.66 O
ATOM 14842 N VAL C 590 166.395 211.334 219.846 1.00 43.65 N
ATOM 14843 CA VAL C 590 167.634 211.471 219.093 1.00 43.65 C
ATOM 14844 C VAL C 590 168.561 210.297 219.380 1.00 43.65 C
ATOM 14845 O VAL C 590 168.426 209.597 220.391 1.00 43.65 O
ATOM 14846 CB VAL C 590 168.317 212.805 219.434 1.00 43.65 C
ATOM 14847 CG1 VAL C 590 167.417 213.967 219.058 1.00 43.65 C
ATOM 14848 CG2 VAL C 590 168.662 212.849 220.909 1.00 43.65 C
ATOM 14849 N GLN C 591 169.517 210.080 218.478 1.00 39.72 N
ATOM 14850 CA GLN C 591 170.516 209.036 218.669 1.00 39.72 C
ATOM 14851 C GLN C 591 171.913 209.556 218.365 1.00 39.72 C
ATOM 14852 O GLN C 591 172.111 210.764 218.210 1.00 39.72 O
ATOM 14853 CB GLN C 591 170.208 207.822 217.799 1.00 39.72 C
ATOM 14854 CG GLN C 591 168.936 207.113 218.185 1.00 39.72 C
ATOM 14855 CD GLN C 591 168.716 205.857 217.380 1.00 39.72 C
ATOM 14856 OE1 GLN C 591 169.507 205.524 216.501 1.00 39.72 O
ATOM 14857 NE2 GLN C 591 167.636 205.149 217.675 1.00 39.72 N
ATOM 14858 N TYR C 592 172.889 208.655 218.289 1.00 35.85 N
ATOM 14859 CA TYR C 592 174.271 209.040 218.045 1.00 35.85 C
ATOM 14860 C TYR C 592 174.921 208.033 217.114 1.00 35.85 C
ATOM 14861 O TYR C 592 174.845 206.825 217.349 1.00 35.85 O
ATOM 14862 CB TYR C 592 175.059 209.123 219.353 1.00 35.85 C
ATOM 14863 CG TYR C 592 174.588 210.224 220.263 1.00 35.85 C
ATOM 14864 CD1 TYR C 592 175.040 211.524 220.105 1.00 35.85 C
ATOM 14865 CD2 TYR C 592 173.672 209.966 221.266 1.00 35.85 C
ATOM 14866 CE1 TYR C 592 174.603 212.532 220.934 1.00 35.85 C
ATOM 14867 CE2 TYR C 592 173.228 210.965 222.097 1.00 35.85 C
ATOM 14868 CZ TYR C 592 173.695 212.246 221.928 1.00 35.85 C
ATOM 14869 OH TYR C 592 173.250 213.244 222.762 1.00 35.85 O
ATOM 14870 N GLY C 593 175.563 208.538 216.068 1.00 34.22 N
ATOM 14871 CA GLY C 593 176.277 207.689 215.136 1.00 34.22 C
ATOM 14872 C GLY C 593 177.353 208.495 214.446 1.00 34.22 C

ATOM 14873 O GLY C 593 177.267 209.721 214.339 1.00 34.22 O
ATOM 14874 N GLN C 594 178.372 207.791 213.973 1.00 31.62 N
ATOM 14875 CA GLN C 594 179.550 208.423 213.405 1.00 31.62 C
ATOM 14876 C GLN C 594 179.484 208.400 211.886 1.00 31.62 C
ATOM 14877 O GLN C 594 179.131 207.382 211.285 1.00 31.62 O
ATOM 14878 CB GLN C 594 180.820 207.731 213.888 1.00 31.62 C
ATOM 14879 CG GLN C 594 181.059 207.888 215.370 1.00 31.62 C
ATOM 14880 CD GLN C 594 182.306 207.179 215.813 1.00 31.62 C
ATOM 14881 OE1 GLN C 594 182.966 206.525 215.014 1.00 31.62 O
ATOM 14882 NE2 GLN C 594 182.638 207.295 217.090 1.00 31.62 N
ATOM 14883 N LEU C 595 179.822 209.533 211.277 1.00 32.41 N
ATOM 14884 CA LEU C 595 179.803 209.657 209.828 1.00 32.41 C
ATOM 14885 C LEU C 595 180.767 208.665 209.191 1.00 32.41 C
ATOM 14886 O LEU C 595 181.753 208.251 209.804 1.00 32.41 O
ATOM 14887 CB LEU C 595 180.171 211.081 209.420 1.00 32.41 C
ATOM 14888 CG LEU C 595 180.111 211.415 207.932 1.00 32.41 C
ATOM 14889 CD1 LEU C 595 178.686 211.309 207.432 1.00 32.41 C
ATOM 14890 CD2 LEU C 595 180.669 212.799 207.674 1.00 32.41 C
ATOM 14891 N GLY C 596 180.477 208.285 207.951 1.00 39.67 N
ATOM 14892 CA GLY C 596 181.298 207.320 207.249 1.00 39.67 C
ATOM 14893 C GLY C 596 181.692 207.768 205.859 1.00 39.67 C
ATOM 14894 O GLY C 596 181.568 208.948 205.521 1.00 39.67 O
ATOM 14895 N GLU C 597 182.169 206.833 205.042 1.00 50.03 N
ATOM 14896 CA GLU C 597 182.623 207.176 203.703 1.00 50.03 C
ATOM 14897 C GLU C 597 181.440 207.331 202.756 1.00 50.03 C
ATOM 14898 O GLU C 597 180.440 206.617 202.860 1.00 50.03 O
ATOM 14899 CB GLU C 597 183.577 206.106 203.172 1.00 50.03 C
ATOM 14900 CG GLU C 597 184.887 205.988 203.940 1.00 50.03 C
ATOM 14901 CD GLU C 597 184.779 205.076 205.150 1.00 50.03 C
ATOM 14902 OE1 GLU C 597 183.700 204.477 205.350 1.00 50.03 O
ATOM 14903 OE2 GLU C 597 185.771 204.956 205.901 1.00 50.03 O
ATOM 14904 N ASP C 598 181.563 208.277 201.826 1.00 50.62 N
ATOM 14905 CA ASP C 598 180.565 208.504 200.782 1.00 50.62 C
ATOM 14906 C ASP C 598 179.211 208.885 201.377 1.00 50.62 C

ATOM 14907 O ASP C 598 178.159 208.593 200.805 1.00 50.62 O
ATOM 14908 CB ASP C 598 180.437 207.281 199.869 1.00 50.62 C
ATOM 14909 CG ASP C 598 179.811 207.616 198.529 1.00 50.62 C
ATOM 14910 OD1 ASP C 598 179.448 208.791 198.320 1.00 50.62 O
ATOM 14911 OD2 ASP C 598 179.699 206.707 197.678 1.00 50.62 O
ATOM 14912 N ASN C 599 179.243 209.548 202.533 1.00 43.75 N
ATOM 14913 CA ASN C 599 178.068 210.130 203.180 1.00 43.75 C
ATOM 14914 C ASN C 599 177.026 209.061 203.525 1.00 43.75 C
ATOM 14915 O ASN C 599 175.914 209.035 202.997 1.00 43.75 O
ATOM 14916 CB ASN C 599 177.451 211.221 202.300 1.00 43.75 C
ATOM 14917 CG ASN C 599 176.701 212.253 203.106 1.00 43.75 C
ATOM 14918 OD1 ASN C 599 176.334 213.310 202.597 1.00 43.75 O
ATOM 14919 ND2 ASN C 599 176.508 211.970 204.386 1.00 43.75 N
ATOM 14920 N GLU C 600 177.419 208.179 204.441 1.00 40.01 N
ATOM 14921 CA GLU C 600 176.498 207.180 204.973 1.00 40.01 C
ATOM 14922 C GLU C 600 176.776 206.995 206.455 1.00 40.01 C
ATOM 14923 O GLU C 600 177.914 206.725 206.846 1.00 40.01 O
ATOM 14924 CB GLU C 600 176.617 205.855 204.211 1.00 40.01 C
ATOM 14925 CG GLU C 600 177.969 205.165 204.263 1.00 40.01 C
ATOM 14926 CD GLU C 600 178.074 204.177 205.403 1.00 40.01 C
ATOM 14927 OE1 GLU C 600 177.022 203.794 205.951 1.00 40.01 O
ATOM 14928 OE2 GLU C 600 179.206 203.773 205.743 1.00 40.01 O
ATOM 14929 N ILE C 601 175.741 207.168 207.278 1.00 32.77 N
ATOM 14930 CA ILE C 601 175.894 207.031 208.720 1.00 32.77 C
ATOM 14931 C ILE C 601 176.149 205.574 209.075 1.00 32.77 C
ATOM 14932 O ILE C 601 175.596 204.657 208.455 1.00 32.77 O
ATOM 14933 CB ILE C 601 174.649 207.562 209.449 1.00 32.77 C
ATOM 14934 CG1 ILE C 601 174.499 209.067 209.242 1.00 32.77 C
ATOM 14935 CG2 ILE C 601 174.711 207.241 210.927 1.00 32.77 C
ATOM 14936 CD1 ILE C 601 173.178 209.605 209.736 1.00 32.77 C
ATOM 14937 N LEU C 602 176.994 205.356 210.077 1.00 31.93 N
ATOM 14938 CA LEU C 602 177.219 204.040 210.651 1.00 31.93 C
ATOM 14939 C LEU C 602 176.978 204.109 212.152 1.00 31.93 C
ATOM 14940 O LEU C 602 177.376 205.074 212.810 1.00 31.93 O

ATOM 14941 CB LEU C 602 178.632 203.534 210.342 1.00 31.93 C
ATOM 14942 CG LEU C 602 179.826 204.387 210.766 1.00 31.93 C
ATOM 14943 CD1 LEU C 602 180.213 204.128 212.206 1.00 31.93 C
ATOM 14944 CD2 LEU C 602 181.003 204.125 209.845 1.00 31.93 C
ATOM 14945 N LEU C 603 176.330 203.078 212.685 1.00 33.27 N
ATOM 14946 CA LEU C 603 175.788 203.129 214.033 1.00 33.27 C
ATOM 14947 C LEU C 603 176.893 203.102 215.084 1.00 33.27 C
ATOM 14948 O LEU C 603 178.052 202.784 214.806 1.00 33.27 O
ATOM 14949 CB LEU C 603 174.833 201.960 214.256 1.00 33.27 C
ATOM 14950 CG LEU C 603 173.569 201.961 213.399 1.00 33.27 C
ATOM 14951 CD1 LEU C 603 172.822 200.654 213.556 1.00 33.27 C
ATOM 14952 CD2 LEU C 603 172.683 203.127 213.782 1.00 33.27 C
ATOM 14953 N GLY C 604 176.512 203.443 216.309 1.00 35.17 N
ATOM 14954 CA GLY C 604 177.400 203.364 217.448 1.00 35.17 C
ATOM 14955 C GLY C 604 178.275 204.595 217.601 1.00 35.17 C
ATOM 14956 O GLY C 604 178.518 205.350 216.662 1.00 35.17 O
ATOM 14957 N ASN C 605 178.745 204.805 218.835 1.00 37.60 N
ATOM 14958 CA ASN C 605 179.675 205.891 219.152 1.00 37.60 C
ATOM 14959 C ASN C 605 180.821 205.305 219.973 1.00 37.60 C
ATOM 14960 O ASN C 605 180.852 205.443 221.197 1.00 37.60 O
ATOM 14961 CB ASN C 605 178.943 206.988 219.910 1.00 37.60 C
ATOM 14962 CG ASN C 605 179.626 208.325 219.810 1.00 37.60 C
ATOM 14963 OD1 ASN C 605 179.042 209.353 220.146 1.00 37.60 O
ATOM 14964 ND2 ASN C 605 180.861 208.327 219.332 1.00 37.60 N
ATOM 14965 N HIS C 606 181.778 204.654 219.299 1.00 40.09 N
ATOM 14966 CA HIS C 606 182.920 204.130 220.042 1.00 40.09 C
ATOM 14967 C HIS C 606 184.235 204.099 219.265 1.00 40.09 C
ATOM 14968 O HIS C 606 185.133 203.346 219.655 1.00 40.09 O
ATOM 14969 CB HIS C 606 182.601 202.734 220.559 1.00 40.09 C
ATOM 14970 CG HIS C 606 182.340 201.738 219.477 1.00 40.09 C
ATOM 14971 ND1 HIS C 606 181.130 201.649 218.826 1.00 40.09 N
ATOM 14972 CD2 HIS C 606 183.131 200.782 218.936 1.00 40.09 C
ATOM 14973 CE1 HIS C 606 181.189 200.686 217.924 1.00 40.09 C
ATOM 14974 NE2 HIS C 606 182.390 200.140 217.975 1.00 40.09 N

ATOM 14975 N ARG C 607 184.391 204.869 218.192 1.00 35.44 N
ATOM 14976 CA ARG C 607 185.619 204.811 217.398 1.00 35.44 C
ATOM 14977 C ARG C 607 186.649 205.821 217.911 1.00 35.44 C
ATOM 14978 O ARG C 607 187.131 206.682 217.179 1.00 35.44 O
ATOM 14979 CB ARG C 607 185.315 205.057 215.925 1.00 35.44 C
ATOM 14980 CG ARG C 607 184.778 203.875 215.134 1.00 35.44 C
ATOM 14981 CD ARG C 607 183.309 203.608 215.418 1.00 35.44 C
ATOM 14982 NE ARG C 607 182.725 202.669 214.463 1.00 35.44 N
ATOM 14983 CZ ARG C 607 181.476 202.213 214.520 1.00 35.44 C
ATOM 14984 NH1 ARG C 607 180.667 202.615 215.486 1.00 35.44 N
ATOM 14985 NH2 ARG C 607 181.036 201.359 213.603 1.00 35.44 N
ATOM 14986 N THR C 608 186.989 205.707 219.193 1.00 38.65 N
ATOM 14987 CA THR C 608 187.948 206.622 219.791 1.00 38.65 C
ATOM 14988 C THR C 608 189.356 206.332 219.274 1.00 38.65 C
ATOM 14989 O THR C 608 189.586 205.391 218.513 1.00 38.65 O
ATOM 14990 CB THR C 608 187.895 206.535 221.315 1.00 38.65 C
ATOM 14991 OG1 THR C 608 188.204 205.202 221.732 1.00 38.65 O
ATOM 14992 CG2 THR C 608 186.515 206.913 221.820 1.00 38.65 C
ATOM 14993 N GLU C 609 190.313 207.160 219.687 1.00 42.35 N
ATOM 14994 CA GLU C 609 191.705 206.993 219.291 1.00 42.35 C
ATOM 14995 C GLU C 609 192.556 207.974 220.080 1.00 42.35 C
ATOM 14996 O GLU C 609 192.079 209.039 220.479 1.00 42.35 O
ATOM 14997 CB GLU C 609 191.903 207.224 217.789 1.00 42.35 C
ATOM 14998 CG GLU C 609 191.729 208.665 217.336 1.00 42.35 C
ATOM 14999 CD GLU C 609 191.917 208.839 215.836 1.00 42.35 C
ATOM 15000 OE1 GLU C 609 192.156 207.831 215.140 1.00 42.35 O
ATOM 15001 OE2 GLU C 609 191.828 209.987 215.352 1.00 42.35 O
ATOM 15002 N GLU C 610 193.819 207.610 220.289 1.00 45.34 N
ATOM 15003 CA GLU C 610 194.748 208.523 220.935 1.00 45.34 C
ATOM 15004 C GLU C 610 194.911 209.773 220.072 1.00 45.34 C
ATOM 15005 O GLU C 610 194.553 209.794 218.892 1.00 45.34 O
ATOM 15006 CB GLU C 610 196.089 207.830 221.180 1.00 45.34 C
ATOM 15007 CG GLU C 610 197.105 208.643 221.953 1.00 45.34 C
ATOM 15008 CD GLU C 610 196.656 208.936 223.369 1.00 45.34 C

ATOM 15009 OE1 GLU C 610 195.870 208.142 223.928 1.00 45.34 O
ATOM 15010 OE2 GLU C 610 197.087 209.967 223.922 1.00 45.34 O
ATOM 15011 N CYS C 611 195.425 210.837 220.679 1.00 45.47 N
ATOM 15012 CA CYS C 611 195.457 212.145 220.041 1.00 45.47 C
ATOM 15013 C CYS C 611 196.893 212.484 219.660 1.00 45.47 C
ATOM 15014 O CYS C 611 197.801 212.394 220.492 1.00 45.47 O
ATOM 15015 CB CYS C 611 194.866 213.201 220.974 1.00 45.47 C
ATOM 15016 SG CYS C 611 193.238 212.699 221.629 1.00 45.47 S
ATOM 15017 N GLN C 612 197.091 212.869 218.403 1.00 48.71 N
ATOM 15018 CA GLN C 612 198.409 213.006 217.793 1.00 48.71 C
ATOM 15019 C GLN C 612 198.532 214.340 217.073 1.00 48.71 C
ATOM 15020 O GLN C 612 198.815 214.400 215.874 1.00 48.71 O
ATOM 15021 CB GLN C 612 198.693 211.837 216.855 1.00 48.71 C
ATOM 15022 CG GLN C 612 198.913 210.525 217.573 1.00 48.71 C
ATOM 15023 CD GLN C 612 200.090 210.578 218.525 1.00 48.71 C
ATOM 15024 OE1 GLN C 612 199.925 210.508 219.742 1.00 48.71 O
ATOM 15025 NE2 GLN C 612 201.287 210.730 217.973 1.00 48.71 N
ATOM 15026 N LEU C 613 198.237 215.417 217.800 1.00 41.41 N
ATOM 15027 CA LEU C 613 198.438 216.778 217.322 1.00 41.41 C
ATOM 15028 C LEU C 613 199.809 216.918 216.662 1.00 41.41 C
ATOM 15029 O LEU C 613 200.802 216.403 217.192 1.00 41.41 O
ATOM 15030 CB LEU C 613 198.350 217.760 218.494 1.00 41.41 C
ATOM 15031 CG LEU C 613 197.022 218.246 219.072 1.00 41.41 C
ATOM 15032 CD1 LEU C 613 196.233 219.011 218.031 1.00 41.41 C
ATOM 15033 CD2 LEU C 613 196.212 217.096 219.640 1.00 41.41 C
ATOM 15034 N PRO C 614 199.911 217.600 215.511 1.00 39.16 N
ATOM 15035 CA PRO C 614 198.830 218.176 214.704 1.00 39.16 C
ATOM 15036 C PRO C 614 198.152 217.123 213.832 1.00 39.16 C
ATOM 15037 O PRO C 614 198.704 216.039 213.664 1.00 39.16 O
ATOM 15038 CB PRO C 614 199.554 219.207 213.831 1.00 39.16 C
ATOM 15039 CG PRO C 614 200.864 219.447 214.509 1.00 39.16 C
ATOM 15040 CD PRO C 614 201.221 218.127 215.104 1.00 39.16 C
ATOM 15041 N SER C 615 196.981 217.433 213.283 1.00 38.73 N
ATOM 15042 CA SER C 615 196.266 216.501 212.423 1.00 38.73 C

ATOM 15043 C SER C 615 195.510 217.279 211.358 1.00 38.73 C
ATOM 15044 O SER C 615 195.135 218.434 211.565 1.00 38.73 O
ATOM 15045 CB SER C 615 195.301 215.625 213.226 1.00 38.73 C
ATOM 15046 OG SER C 615 196.009 214.813 214.146 1.00 38.73 O
ATOM 15047 N LEU C 616 195.307 216.644 210.207 1.00 35.01 N
ATOM 15048 CA LEU C 616 194.667 217.293 209.066 1.00 35.01 C
ATOM 15049 C LEU C 616 193.655 216.347 208.429 1.00 35.01 C
ATOM 15050 O LEU C 616 193.660 216.106 207.223 1.00 35.01 O
ATOM 15051 CB LEU C 616 195.718 217.771 208.064 1.00 35.01 C
ATOM 15052 CG LEU C 616 195.318 218.787 206.989 1.00 35.01 C
ATOM 15053 CD1 LEU C 616 196.488 219.703 206.750 1.00 35.01 C
ATOM 15054 CD2 LEU C 616 194.929 218.150 205.671 1.00 35.01 C
ATOM 15055 N LYS C 617 192.788 215.764 209.250 1.00 36.12 N
ATOM 15056 CA LYS C 617 191.785 214.844 208.733 1.00 36.12 C
ATOM 15057 C LYS C 617 190.828 215.560 207.787 1.00 36.12 C
ATOM 15058 O LYS C 617 190.363 216.666 208.074 1.00 36.12 O
ATOM 15059 CB LYS C 617 191.011 214.216 209.886 1.00 36.12 C
ATOM 15060 CG LYS C 617 191.844 213.305 210.757 1.00 36.12 C
ATOM 15061 CD LYS C 617 190.996 212.655 211.828 1.00 36.12 C
ATOM 15062 CE LYS C 617 191.848 211.798 212.740 1.00 36.12 C
ATOM 15063 NZ LYS C 617 192.409 210.628 212.014 1.00 36.12 N
ATOM 15064 N ILE C 618 190.530 214.919 206.659 1.00 35.69 N
ATOM 15065 CA ILE C 618 189.657 215.472 205.626 1.00 35.69 C
ATOM 15066 C ILE C 618 188.685 214.375 205.211 1.00 35.69 C
ATOM 15067 O ILE C 618 189.075 213.415 204.540 1.00 35.69 O
ATOM 15068 CB ILE C 618 190.438 215.994 204.418 1.00 35.69 C
ATOM 15069 CG1 ILE C 618 191.239 217.238 204.795 1.00 35.69 C
ATOM 15070 CG2 ILE C 618 189.501 216.271 203.263 1.00 35.69 C
ATOM 15071 CD1 ILE C 618 192.224 217.667 203.738 1.00 35.69 C
ATOM 15072 N PHE C 619 187.421 214.517 205.593 1.00 35.33 N
ATOM 15073 CA PHE C 619 186.406 213.518 205.295 1.00 35.33 C
ATOM 15074 C PHE C 619 185.611 213.902 204.054 1.00 35.33 C
ATOM 15075 O PHE C 619 185.269 215.068 203.847 1.00 35.33 O
ATOM 15076 CB PHE C 619 185.467 213.347 206.486 1.00 35.33 C

ATOM 15077 CG PHE C 619 186.139 212.795 207.703 1.00 35.33 C
ATOM 15078 CD1 PHE C 619 186.366 211.440 207.825 1.00 35.33 C
ATOM 15079 CD2 PHE C 619 186.555 213.633 208.718 1.00 35.33 C
ATOM 15080 CE1 PHE C 619 186.989 210.929 208.940 1.00 35.33 C
ATOM 15081 CE2 PHE C 619 187.177 213.127 209.835 1.00 35.33 C
ATOM 15082 CZ PHE C 619 187.395 211.774 209.946 1.00 35.33 C
ATOM 15083 N ILE C 620 185.295 212.897 203.240 1.00 40.28 N
ATOM 15084 CA ILE C 620 184.650 213.090 201.946 1.00 40.28 C
ATOM 15085 C ILE C 620 183.148 212.909 202.106 1.00 40.28 C
ATOM 15086 O ILE C 620 182.684 212.098 202.915 1.00 40.28 O
ATOM 15087 CB ILE C 620 185.211 212.108 200.898 1.00 40.28 C
ATOM 15088 CG1 ILE C 620 184.841 212.555 199.487 1.00 40.28 C
ATOM 15089 CG2 ILE C 620 184.697 210.707 201.161 1.00 40.28 C
ATOM 15090 CD1 ILE C 620 185.527 213.829 199.065 1.00 40.28 C
ATOM 15091 N ALA C 621 182.378 213.675 201.325 1.00 42.92 N
ATOM 15092 CA ALA C 621 180.928 213.650 201.462 1.00 42.92 C
ATOM 15093 C ALA C 621 180.147 213.711 200.155 1.00 42.92 C
ATOM 15094 O ALA C 621 178.916 213.785 200.212 1.00 42.92 O
ATOM 15095 CB ALA C 621 180.462 214.799 202.369 1.00 42.92 C
ATOM 15096 N GLY C 622 180.798 213.688 198.991 1.00 48.43 N
ATOM 15097 CA GLY C 622 180.057 213.628 197.743 1.00 48.43 C
ATOM 15098 C GLY C 622 179.156 214.819 197.480 1.00 48.43 C
ATOM 15099 O GLY C 622 177.931 214.705 197.592 1.00 48.43 O
ATOM 15100 N ASN C 623 179.735 215.966 197.138 1.00 50.61 N
ATOM 15101 CA ASN C 623 181.134 216.036 196.745 1.00 50.61 C
ATOM 15102 C ASN C 623 181.970 216.934 197.646 1.00 50.61 C
ATOM 15103 O ASN C 623 183.191 216.827 197.671 1.00 50.61 O
ATOM 15104 CB ASN C 623 181.239 216.515 195.297 1.00 50.61 C
ATOM 15105 CG ASN C 623 180.580 217.863 195.080 1.00 50.61 C
ATOM 15106 OD1 ASN C 623 180.093 218.492 196.019 1.00 50.61 O
ATOM 15107 ND2 ASN C 623 180.568 218.318 193.834 1.00 50.61 N
ATOM 15108 N SER C 624 181.315 217.830 198.375 1.00 45.00 N
ATOM 15109 CA SER C 624 182.030 218.639 199.348 1.00 45.00 C
ATOM 15110 C SER C 624 182.616 217.744 200.430 1.00 45.00 C

ATOM 15111 O SER C 624 182.090 216.666 200.718 1.00 45.00 O
ATOM 15112 CB SER C 624 181.097 219.680 199.961 1.00 45.00 C
ATOM 15113 OG SER C 624 180.641 220.589 198.975 1.00 45.00 O
ATOM 15114 N ALA C 625 183.718 218.185 201.025 1.00 39.16 N
ATOM 15115 CA ALA C 625 184.412 217.417 202.047 1.00 39.16 C
ATOM 15116 C ALA C 625 184.698 218.304 203.246 1.00 39.16 C
ATOM 15117 O ALA C 625 185.150 219.442 203.087 1.00 39.16 O
ATOM 15118 CB ALA C 625 185.715 216.829 201.510 1.00 39.16 C
ATOM 15119 N TYR C 626 184.429 217.783 204.438 1.00 37.95 N
ATOM 15120 CA TYR C 626 184.774 218.487 205.658 1.00 37.95 C
ATOM 15121 C TYR C 626 186.290 218.512 205.825 1.00 37.95 C
ATOM 15122 O TYR C 626 187.030 217.798 205.147 1.00 37.95 O
ATOM 15123 CB TYR C 626 184.113 217.814 206.857 1.00 37.95 C
ATOM 15124 CG TYR C 626 182.606 217.806 206.784 1.00 37.95 C
ATOM 15125 CD1 TYR C 626 181.860 218.885 207.227 1.00 37.95 C
ATOM 15126 CD2 TYR C 626 181.932 216.724 206.242 1.00 37.95 C
ATOM 15127 CE1 TYR C 626 180.483 218.877 207.151 1.00 37.95 C
ATOM 15128 CE2 TYR C 626 180.562 216.707 206.159 1.00 37.95 C
ATOM 15129 CZ TYR C 626 179.841 217.784 206.614 1.00 37.95 C
ATOM 15130 OH TYR C 626 178.470 217.767 206.532 1.00 37.95 O
ATOM 15131 N GLU C 627 186.755 219.344 206.753 1.00 39.77 N
ATOM 15132 CA GLU C 627 188.190 219.455 207.009 1.00 39.77 C
ATOM 15133 C GLU C 627 188.380 219.845 208.470 1.00 39.77 C
ATOM 15134 O GLU C 627 188.118 220.991 208.846 1.00 39.77 O
ATOM 15135 CB GLU C 627 188.844 220.467 206.083 1.00 39.77 C
ATOM 15136 CG GLU C 627 190.343 220.561 206.285 1.00 39.77 C
ATOM 15137 CD GLU C 627 190.999 221.587 205.388 1.00 39.77 C
ATOM 15138 OE1 GLU C 627 190.277 222.271 204.637 1.00 39.77 O
ATOM 15139 OE2 GLU C 627 192.240 221.710 205.435 1.00 39.77 O
ATOM 15140 N TYR C 628 188.834 218.897 209.278 1.00 34.73 N
ATOM 15141 CA TYR C 628 189.173 219.170 210.664 1.00 34.73 C
ATOM 15142 C TYR C 628 190.671 219.404 210.798 1.00 34.73 C
ATOM 15143 O TYR C 628 191.482 218.739 210.149 1.00 34.73 O
ATOM 15144 CB TYR C 628 188.742 218.011 211.559 1.00 34.73 C

ATOM 15145 CG TYR C 628 187.248 217.833 211.643 1.00 34.73 C
ATOM 15146 CD1 TYR C 628 186.488 218.585 212.524 1.00 34.73 C
ATOM 15147 CD2 TYR C 628 186.595 216.922 210.831 1.00 34.73 C
ATOM 15148 CE1 TYR C 628 185.122 218.425 212.600 1.00 34.73 C
ATOM 15149 CE2 TYR C 628 185.231 216.757 210.899 1.00 34.73 C
ATOM 15150 CZ TYR C 628 184.501 217.511 211.784 1.00 34.73 C
ATOM 15151 OH TYR C 628 183.140 217.347 211.853 1.00 34.73 O
ATOM 15152 N VAL C 629 191.033 220.355 211.655 1.00 35.43 N
ATOM 15153 CA VAL C 629 192.429 220.705 211.893 1.00 35.43 C
ATOM 15154 C VAL C 629 192.645 220.758 213.396 1.00 35.43 C
ATOM 15155 O VAL C 629 192.037 221.585 214.084 1.00 35.43 O
ATOM 15156 CB VAL C 629 192.815 222.047 211.251 1.00 35.43 C
ATOM 15157 CG1 VAL C 629 194.242 222.405 211.613 1.00 35.43 C
ATOM 15158 CG2 VAL C 629 192.645 221.976 209.750 1.00 35.43 C
ATOM 15159 N ASP C 630 193.512 219.885 213.906 1.00 40.08 N
ATOM 15160 CA ASP C 630 193.693 219.714 215.344 1.00 40.08 C
ATOM 15161 C ASP C 630 192.387 219.323 216.024 1.00 40.08 C
ATOM 15162 O ASP C 630 192.134 219.699 217.170 1.00 40.08 O
ATOM 15163 CB ASP C 630 194.275 220.972 215.992 1.00 40.08 C
ATOM 15164 CG ASP C 630 195.716 221.212 215.599 1.00 40.08 C
ATOM 15165 OD1 ASP C 630 196.415 220.228 215.285 1.00 40.08 O
ATOM 15166 OD2 ASP C 630 196.153 222.381 215.614 1.00 40.08 O
ATOM 15167 N TYR C 631 191.548 218.566 215.315 1.00 39.78 N
ATOM 15168 CA TYR C 631 190.308 218.035 215.873 1.00 39.78 C
ATOM 15169 C TYR C 631 189.317 219.157 216.192 1.00 39.78 C
ATOM 15170 O TYR C 631 188.746 219.221 217.280 1.00 39.78 O
ATOM 15171 CB TYR C 631 190.609 217.184 217.107 1.00 39.78 C
ATOM 15172 CG TYR C 631 191.359 215.916 216.774 1.00 39.78 C
ATOM 15173 CD1 TYR C 631 191.304 215.368 215.503 1.00 39.78 C
ATOM 15174 CD2 TYR C 631 192.161 215.297 217.714 1.00 39.78 C
ATOM 15175 CE1 TYR C 631 191.994 214.215 215.193 1.00 39.78 C
ATOM 15176 CE2 TYR C 631 192.858 214.144 217.415 1.00 39.78 C
ATOM 15177 CZ TYR C 631 192.773 213.608 216.153 1.00 39.78 C
ATOM 15178 OH TYR C 631 193.468 212.462 215.848 1.00 39.78 O

ATOM 15179 N LEU C 632 189.122 220.045 215.220 1.00 39.21 N
ATOM 15180 CA LEU C 632 188.131 221.110 215.293 1.00 39.21 C
ATOM 15181 C LEU C 632 187.752 221.491 213.871 1.00 39.21 C
ATOM 15182 O LEU C 632 188.633 221.666 213.025 1.00 39.21 O
ATOM 15183 CB LEU C 632 188.665 222.332 216.047 1.00 39.21 C
ATOM 15184 CG LEU C 632 188.904 222.182 217.548 1.00 39.21 C
ATOM 15185 CD1 LEU C 632 189.567 223.426 218.115 1.00 39.21 C
ATOM 15186 CD2 LEU C 632 187.593 221.905 218.255 1.00 39.21 C
ATOM 15187 N PHE C 633 186.452 221.608 213.611 1.00 37.67 N
ATOM 15188 CA PHE C 633 185.983 221.907 212.265 1.00 37.67 C
ATOM 15189 C PHE C 633 186.491 223.265 211.800 1.00 37.67 C
ATOM 15190 O PHE C 633 186.479 224.243 212.551 1.00 37.67 O
ATOM 15191 CB PHE C 633 184.458 221.871 212.221 1.00 37.67 C
ATOM 15192 CG PHE C 633 183.884 222.201 210.878 1.00 37.67 C
ATOM 15193 CD1 PHE C 633 183.965 221.302 209.835 1.00 37.67 C
ATOM 15194 CD2 PHE C 633 183.251 223.409 210.664 1.00 37.67 C
ATOM 15195 CE1 PHE C 633 183.436 221.605 208.602 1.00 37.67 C
ATOM 15196 CE2 PHE C 633 182.719 223.717 209.433 1.00 37.67 C
ATOM 15197 CZ PHE C 633 182.811 222.814 208.401 1.00 37.67 C
ATOM 15198 N LYS C 634 186.947 223.319 210.548 1.00 39.22 N
ATOM 15199 CA LYS C 634 187.540 224.532 209.997 1.00 39.22 C
ATOM 15200 C LYS C 634 186.721 225.123 208.857 1.00 39.22 C
ATOM 15201 O LYS C 634 186.285 226.274 208.954 1.00 39.22 O
ATOM 15202 CB LYS C 634 188.969 224.232 209.530 1.00 39.22 C
ATOM 15203 CG LYS C 634 189.705 225.432 208.977 1.00 39.22 C
ATOM 15204 CD LYS C 634 189.878 226.500 210.039 1.00 39.22 C
ATOM 15205 CE LYS C 634 190.781 226.018 211.162 1.00 39.22 C
ATOM 15206 NZ LYS C 634 192.189 225.850 210.711 1.00 39.22 N
ATOM 15207 N ARG C 635 186.494 224.378 207.780 1.00 43.29 N
ATOM 15208 CA ARG C 635 185.751 224.913 206.644 1.00 43.29 C
ATOM 15209 C ARG C 635 185.347 223.757 205.733 1.00 43.29 C
ATOM 15210 O ARG C 635 185.445 222.586 206.118 1.00 43.29 O
ATOM 15211 CB ARG C 635 186.579 225.978 205.908 1.00 43.29 C
ATOM 15212 CG ARG C 635 187.796 225.432 205.191 1.00 43.29 C

ATOM 15213 CD ARG C 635 188.611 226.554 204.574 1.00 43.29 C
ATOM 15214 NE ARG C 635 189.742 226.044 203.808 1.00 43.29 N
ATOM 15215 CZ ARG C 635 190.928 225.757 204.333 1.00 43.29 C
ATOM 15216 NH1 ARG C 635 191.140 225.931 205.630 1.00 43.29 N
ATOM 15217 NH2 ARG C 635 191.902 225.295 203.562 1.00 43.29 N
ATOM 15218 N MET C 636 184.891 224.088 204.528 1.00 39.91 N
ATOM 15219 CA MET C 636 184.450 223.114 203.539 1.00 39.91 C
ATOM 15220 C MET C 636 185.321 223.222 202.296 1.00 39.91 C
ATOM 15221 O MET C 636 185.560 224.326 201.796 1.00 39.91 O
ATOM 15222 CB MET C 636 182.984 223.342 203.167 1.00 39.91 C
ATOM 15223 CG MET C 636 182.005 223.115 204.301 1.00 39.91 C
ATOM 15224 SD MET C 636 181.987 221.409 204.866 1.00 39.91 S
ATOM 15225 CE MET C 636 181.243 220.609 203.450 1.00 39.91 C
ATOM 15226 N ILE C 637 185.795 222.081 201.805 1.00 44.53 N
ATOM 15227 CA ILE C 637 186.523 222.001 200.545 1.00 44.53 C
ATOM 15228 C ILE C 637 185.583 221.444 199.487 1.00 44.53 C
ATOM 15229 O ILE C 637 184.708 220.621 199.778 1.00 44.53 O
ATOM 15230 CB ILE C 637 187.791 221.134 200.685 1.00 44.53 C
ATOM 15231 CG1 ILE C 637 188.758 221.768 201.682 1.00 44.53 C
ATOM 15232 CG2 ILE C 637 188.475 220.945 199.343 1.00 44.53 C
ATOM 15233 CD1 ILE C 637 189.900 220.863 202.065 1.00 44.53 C
ATOM 15234 N ASP C 638 185.763 221.889 198.244 1.00 50.79 N
ATOM 15235 CA ASP C 638 184.883 221.515 197.143 1.00 50.79 C
ATOM 15236 C ASP C 638 185.474 220.413 196.266 1.00 50.79 C
ATOM 15237 O ASP C 638 185.026 220.208 195.136 1.00 50.79 O
ATOM 15238 CB ASP C 638 184.543 222.744 196.303 1.00 50.79 C
ATOM 15239 CG ASP C 638 185.775 223.434 195.752 1.00 50.79 C
ATOM 15240 OD1 ASP C 638 186.900 223.003 196.080 1.00 50.79 O
ATOM 15241 OD2 ASP C 638 185.619 224.411 194.990 1.00 50.79 O
ATOM 15242 N LEU C 639 186.469 219.689 196.778 1.00 51.58 N
ATOM 15243 CA LEU C 639 187.092 218.579 196.053 1.00 51.58 C
ATOM 15244 C LEU C 639 187.668 219.031 194.713 1.00 51.58 C
ATOM 15245 O LEU C 639 187.508 218.372 193.685 1.00 51.58 O
ATOM 15246 CB LEU C 639 186.111 217.422 195.864 1.00 51.58 C

ATOM 15247 CG LEU C 639 186.158 216.359 196.959 1.00 51.58 C
ATOM 15248 CD1 LEU C 639 187.474 215.623 196.888 1.00 51.58 C
ATOM 15249 CD2 LEU C 639 186.021 217.007 198.310 1.00 51.58 C
ATOM 15250 N SER C 640 188.341 220.169 194.732 1.00 53.99 N
ATOM 15251 CA SER C 640 189.147 220.601 193.600 1.00 53.99 C
ATOM 15252 C SER C 640 190.632 220.572 193.906 1.00 53.99 C
ATOM 15253 O SER C 640 191.439 220.322 193.008 1.00 53.99 O
ATOM 15254 CB SER C 640 188.744 222.013 193.157 1.00 53.99 C
ATOM 15255 OG SER C 640 189.534 222.440 192.061 1.00 53.99 O
ATOM 15256 N SER C 641 191.010 220.823 195.159 1.00 53.47 N
ATOM 15257 CA SER C 641 192.416 220.769 195.538 1.00 53.47 C
ATOM 15258 C SER C 641 192.965 219.353 195.436 1.00 53.47 C
ATOM 15259 O SER C 641 194.075 219.146 194.932 1.00 53.47 O
ATOM 15260 CB SER C 641 192.591 221.314 196.955 1.00 53.47 C
ATOM 15261 OG SER C 641 193.934 221.202 197.386 1.00 53.47 O
ATOM 15262 N ILE C 642 192.207 218.364 195.907 1.00 51.10 N
ATOM 15263 CA ILE C 642 192.683 216.988 195.897 1.00 51.10 C
ATOM 15264 C ILE C 642 192.779 216.494 194.461 1.00 51.10 C
ATOM 15265 O ILE C 642 191.811 216.569 193.694 1.00 51.10 O
ATOM 15266 CB ILE C 642 191.760 216.093 196.735 1.00 51.10 C
ATOM 15267 CG1 ILE C 642 191.788 216.524 198.202 1.00 51.10 C
ATOM 15268 CG2 ILE C 642 192.172 214.641 196.605 1.00 51.10 C
ATOM 15269 CD1 ILE C 642 190.754 217.563 198.555 1.00 51.10 C
ATOM 15270 N SER C 643 193.949 215.986 194.091 1.00 56.60 N
ATOM 15271 CA SER C 643 194.212 215.516 192.738 1.00 56.60 C
ATOM 15272 C SER C 643 193.994 214.012 192.666 1.00 56.60 C
ATOM 15273 O SER C 643 194.565 213.260 193.461 1.00 56.60 O
ATOM 15274 CB SER C 643 195.637 215.863 192.310 1.00 56.60 C
ATOM 15275 OG SER C 643 195.825 217.266 192.260 1.00 56.60 O
ATOM 15276 N THR C 644 193.170 213.581 191.715 1.00 66.57 N
ATOM 15277 CA THR C 644 192.891 212.161 191.557 1.00 66.57 C
ATOM 15278 C THR C 644 194.164 211.413 191.177 1.00 66.57 C
ATOM 15279 O THR C 644 195.066 211.962 190.539 1.00 66.57 O
ATOM 15280 CB THR C 644 191.809 211.951 190.498 1.00 66.57 C

ATOM 15281 OG1 THR C 644 190.647 212.710 190.850 1.00 66.57 O
ATOM 15282 CG2 THR C 644 191.417 210.490 190.421 1.00 66.57 C
ATOM 15283 N VAL C 645 194.234 210.142 191.580 1.00 71.06 N
ATOM 15284 CA VAL C 645 195.465 209.377 191.410 1.00 71.06 C
ATOM 15285 C VAL C 645 195.779 209.140 189.938 1.00 71.06 C
ATOM 15286 O VAL C 645 196.949 209.165 189.539 1.00 71.06 O
ATOM 15287 CB VAL C 645 195.382 208.050 192.185 1.00 71.06 C
ATOM 15288 CG1 VAL C 645 194.278 207.173 191.625 1.00 71.06 C
ATOM 15289 CG2 VAL C 645 196.714 207.330 192.128 1.00 71.06 C
ATOM 15290 N ASP C 646 194.763 208.906 189.106 1.00 80.81 N
ATOM 15291 CA ASP C 646 194.980 208.670 187.685 1.00 80.81 C
ATOM 15292 C ASP C 646 195.042 209.962 186.878 1.00 80.81 C
ATOM 15293 O ASP C 646 195.034 209.913 185.643 1.00 80.81 O
ATOM 15294 CB ASP C 646 193.901 207.737 187.126 1.00 80.81 C
ATOM 15295 CG ASP C 646 192.500 208.300 187.266 1.00 80.81 C
ATOM 15296 OD1 ASP C 646 192.343 209.388 187.853 1.00 80.81 O
ATOM 15297 OD2 ASP C 646 191.550 207.648 186.786 1.00 80.81 O
ATOM 15298 N SER C 647 195.105 211.112 187.547 1.00 88.12 N
ATOM 15299 CA SER C 647 195.303 212.393 186.887 1.00 88.12 C
ATOM 15300 C SER C 647 196.718 212.921 187.065 1.00 88.12 C
ATOM 15301 O SER C 647 197.045 213.982 186.524 1.00 88.12 O
ATOM 15302 CB SER C 647 194.297 213.424 187.410 1.00 88.12 C
ATOM 15303 OG SER C 647 192.970 213.050 187.086 1.00 88.12 O
ATOM 15304 N MET C 648 197.559 212.208 187.810 1.00 93.64 N
ATOM 15305 CA MET C 648 198.967 212.545 187.985 1.00 93.64 C
ATOM 15306 C MET C 648 199.813 211.287 187.875 1.00 93.64 C
ATOM 15307 O MET C 648 200.742 211.069 188.660 1.00 93.64 O
ATOM 15308 CB MET C 648 199.208 213.246 189.321 1.00 93.64 C
ATOM 15309 CG MET C 648 198.532 214.600 189.435 1.00 93.64 C
ATOM 15310 SD MET C 648 199.156 215.785 188.229 1.00 93.64 S
ATOM 15311 CE MET C 648 198.019 217.146 188.470 1.00 93.64 C
ATOM 15312 N ILE C 649 199.492 210.438 186.894 1.00 92.82 N
ATOM 15313 CA ILE C 649 200.150 209.141 186.757 1.00 92.82 C
ATOM 15314 C ILE C 649 201.643 209.301 186.504 1.00 92.82 C

ATOM 15315 O ILE C 649 202.434 208.404 186.819 1.00 92.82 O
ATOM 15316 CB ILE C 649 199.473 208.324 185.638 1.00 92.82 C
ATOM 15317 CG1 ILE C 649 198.014 208.036 185.996 1.00 92.82 C
ATOM 15318 CG2 ILE C 649 200.222 207.025 185.389 1.00 92.82 C
ATOM 15319 CD1 ILE C 649 197.205 207.461 184.853 1.00 92.82 C
ATOM 15320 N ALA C 650 202.055 210.432 185.941 1.00 96.15 N
ATOM 15321 CA ALA C 650 203.458 210.686 185.642 1.00 96.15 C
ATOM 15322 C ALA C 650 204.104 211.711 186.557 1.00 96.15 C
ATOM 15323 O ALA C 650 205.236 211.503 186.999 1.00 96.15 O
ATOM 15324 CB ALA C 650 203.612 211.146 184.188 1.00 96.15 C
ATOM 15325 N LEU C 651 203.422 212.812 186.859 1.00 94.81 N
ATOM 15326 CA LEU C 651 204.046 213.966 187.504 1.00 94.81 C
ATOM 15327 C LEU C 651 203.487 214.150 188.915 1.00 94.81 C
ATOM 15328 O LEU C 651 202.460 214.798 189.119 1.00 94.81 O
ATOM 15329 CB LEU C 651 203.849 215.223 186.659 1.00 94.81 C
ATOM 15330 CG LEU C 651 204.637 216.463 187.085 1.00 94.81 C
ATOM 15331 CD1 LEU C 651 204.946 217.328 185.877 1.00 94.81 C
ATOM 15332 CD2 LEU C 651 203.881 217.270 188.129 1.00 94.81 C
ATOM 15333 N ASP C 652 204.177 213.560 189.883 1.00 83.07 N
ATOM 15334 CA ASP C 652 204.136 213.933 191.293 1.00 83.07 C
ATOM 15335 C ASP C 652 205.562 213.978 191.818 1.00 83.07 C
ATOM 15336 O ASP C 652 205.891 213.416 192.864 1.00 83.07 O
ATOM 15337 CB ASP C 652 203.266 212.984 192.111 1.00 83.07 C
ATOM 15338 CG ASP C 652 203.748 211.550 192.054 1.00 83.07 C
ATOM 15339 OD1 ASP C 652 204.673 211.251 191.271 1.00 83.07 O
ATOM 15340 OD2 ASP C 652 203.215 210.723 192.816 1.00 83.07 O
ATOM 15341 N ILE C 653 206.408 214.700 191.072 1.00 79.98 N
ATOM 15342 CA ILE C 653 207.834 214.389 190.937 1.00 79.98 C
ATOM 15343 C ILE C 653 208.529 214.249 192.284 1.00 79.98 C
ATOM 15344 O ILE C 653 209.442 213.429 192.441 1.00 79.98 O
ATOM 15345 CB ILE C 653 208.521 215.452 190.060 1.00 79.98 C
ATOM 15346 CG1 ILE C 653 207.846 215.520 188.689 1.00 79.98 C
ATOM 15347 CG2 ILE C 653 210.003 215.143 189.915 1.00 79.98 C
ATOM 15348 CD1 ILE C 653 207.877 214.212 187.927 1.00 79.98 C

ATOM 15349 N ASP C 654 208.123 215.033 193.273 1.00 68.56 N
ATOM 15350 CA ASP C 654 208.779 214.863 194.561 1.00 68.56 C
ATOM 15351 C ASP C 654 207.901 215.280 195.733 1.00 68.56 C
ATOM 15352 O ASP C 654 207.537 216.455 195.863 1.00 68.56 O
ATOM 15353 CB ASP C 654 210.102 215.634 194.595 1.00 68.56 C
ATOM 15354 CG ASP C 654 209.937 217.106 194.263 1.00 68.56 C
ATOM 15355 OD1 ASP C 654 208.834 217.513 193.840 1.00 68.56 O
ATOM 15356 OD2 ASP C 654 210.913 217.863 194.444 1.00 68.56 O
ATOM 15357 N PRO C 655 207.539 214.346 196.602 1.00 56.97 N
ATOM 15358 CA PRO C 655 207.017 214.731 197.917 1.00 56.97 C
ATOM 15359 C PRO C 655 208.128 215.333 198.761 1.00 56.97 C
ATOM 15360 O PRO C 655 209.284 215.345 198.329 1.00 56.97 O
ATOM 15361 CB PRO C 655 206.499 213.408 198.490 1.00 56.97 C
ATOM 15362 CG PRO C 655 207.306 212.360 197.792 1.00 56.97 C
ATOM 15363 CD PRO C 655 207.563 212.886 196.413 1.00 56.97 C
ATOM 15364 N LEU C 656 207.818 215.823 199.959 1.00 48.35 N
ATOM 15365 CA LEU C 656 208.784 216.584 200.738 1.00 48.35 C
ATOM 15366 C LEU C 656 209.525 215.768 201.790 1.00 48.35 C
ATOM 15367 O LEU C 656 210.505 216.267 202.349 1.00 48.35 O
ATOM 15368 CB LEU C 656 208.101 217.778 201.414 1.00 48.35 C
ATOM 15369 CG LEU C 656 207.631 218.898 200.491 1.00 48.35 C
ATOM 15370 CD1 LEU C 656 206.866 219.939 201.284 1.00 48.35 C
ATOM 15371 CD2 LEU C 656 208.821 219.524 199.792 1.00 48.35 C
ATOM 15372 N GLU C 657 209.118 214.529 202.060 1.00 45.22 N
ATOM 15373 CA GLU C 657 209.753 213.720 203.100 1.00 45.22 C
ATOM 15374 C GLU C 657 209.609 214.396 204.468 1.00 45.22 C
ATOM 15375 O GLU C 657 210.568 214.856 205.085 1.00 45.22 O
ATOM 15376 CB GLU C 657 211.219 213.447 202.739 1.00 45.22 C
ATOM 15377 CG GLU C 657 211.924 212.391 203.568 1.00 45.22 C
ATOM 15378 CD GLU C 657 212.715 212.985 204.704 1.00 45.22 C
ATOM 15379 OE1 GLU C 657 213.192 214.127 204.549 1.00 45.22 O
ATOM 15380 OE2 GLU C 657 212.860 212.329 205.753 1.00 45.22 O
ATOM 15381 N ASN C 658 208.359 214.485 204.907 1.00 42.86 N
ATOM 15382 CA ASN C 658 208.024 215.120 206.168 1.00 42.86 C

ATOM 15383 C ASN C 658 208.282 214.188 207.346 1.00 42.86 C
ATOM 15384 O ASN C 658 208.521 212.989 207.177 1.00 42.86 O
ATOM 15385 CB ASN C 658 206.563 215.562 206.145 1.00 42.86 C
ATOM 15386 CG ASN C 658 205.626 214.438 205.771 1.00 42.86 C
ATOM 15387 OD1 ASN C 658 206.036 213.287 205.649 1.00 42.86 O
ATOM 15388 ND2 ASN C 658 204.363 214.772 205.556 1.00 42.86 N
ATOM 15389 N THR C 659 208.238 214.756 208.545 1.00 41.16 N
ATOM 15390 CA THR C 659 208.476 214.028 209.783 1.00 41.16 C
ATOM 15391 C THR C 659 207.372 214.342 210.789 1.00 41.16 C
ATOM 15392 O THR C 659 206.400 215.038 210.484 1.00 41.16 O
ATOM 15393 CB THR C 659 209.849 214.371 210.361 1.00 41.16 C
ATOM 15394 OG1 THR C 659 209.889 215.762 210.702 1.00 41.16 O
ATOM 15395 CG2 THR C 659 210.935 214.076 209.350 1.00 41.16 C
ATOM 15396 N ASP C 660 207.536 213.823 212.006 1.00 40.22 N
ATOM 15397 CA ASP C 660 206.575 214.061 213.081 1.00 40.22 C
ATOM 15398 C ASP C 660 207.322 213.900 214.402 1.00 40.22 C
ATOM 15399 O ASP C 660 207.600 212.776 214.827 1.00 40.22 O
ATOM 15400 CB ASP C 660 205.394 213.108 212.983 1.00 40.22 C
ATOM 15401 CG ASP C 660 204.267 213.485 213.918 1.00 40.22 C
ATOM 15402 OD1 ASP C 660 203.568 214.478 213.631 1.00 40.22 O
ATOM 15403 OD2 ASP C 660 204.076 212.796 214.940 1.00 40.22 O
ATOM 15404 N PHE C 661 207.632 215.022 215.045 1.00 39.13 N
ATOM 15405 CA PHE C 661 208.475 215.029 216.233 1.00 39.13 C
ATOM 15406 C PHE C 661 207.748 214.621 217.505 1.00 39.13 C
ATOM 15407 O PHE C 661 208.353 214.675 218.580 1.00 39.13 O
ATOM 15408 CB PHE C 661 209.079 216.418 216.433 1.00 39.13 C
ATOM 15409 CG PHE C 661 210.033 216.819 215.358 1.00 39.13 C
ATOM 15410 CD1 PHE C 661 211.350 216.404 215.392 1.00 39.13 C
ATOM 15411 CD2 PHE C 661 209.610 217.603 214.304 1.00 39.13 C
ATOM 15412 CE1 PHE C 661 212.228 216.773 214.398 1.00 39.13 C
ATOM 15413 CE2 PHE C 661 210.482 217.973 213.308 1.00 39.13 C
ATOM 15414 CZ PHE C 661 211.793 217.558 213.354 1.00 39.13 C
ATOM 15415 N ARG C 662 206.483 214.229 217.433 1.00 40.54 N
ATOM 15416 CA ARG C 662 205.736 213.901 218.641 1.00 40.54 C

ATOM 15417 C ARG C 662 205.446 212.419 218.791 1.00 40.54 C
ATOM 15418 O ARG C 662 205.628 211.874 219.879 1.00 40.54 O
ATOM 15419 CB ARG C 662 204.425 214.687 218.677 1.00 40.54 C
ATOM 15420 CG ARG C 662 204.634 216.184 218.779 1.00 40.54 C
ATOM 15421 CD ARG C 662 203.323 216.926 218.688 1.00 40.54 C
ATOM 15422 NE ARG C 662 202.461 216.695 219.840 1.00 40.54 N
ATOM 15423 CZ ARG C 662 202.453 217.460 220.926 1.00 40.54 C
ATOM 15424 NH1 ARG C 662 203.256 218.511 221.004 1.00 40.54 N
ATOM 15425 NH2 ARG C 662 201.631 217.177 221.923 1.00 40.54 N
ATOM 15426 N VAL C 663 205.009 211.740 217.726 1.00 41.21 N
ATOM 15427 CA VAL C 663 204.889 210.283 217.769 1.00 41.21 C
ATOM 15428 C VAL C 663 206.238 209.598 217.662 1.00 41.21 C
ATOM 15429 O VAL C 663 206.320 208.373 217.815 1.00 41.21 O
ATOM 15430 CB VAL C 663 203.978 209.758 216.641 1.00 41.21 C
ATOM 15431 CG1 VAL C 663 204.659 209.918 215.301 1.00 41.21 C
ATOM 15432 CG2 VAL C 663 203.599 208.309 216.876 1.00 41.21 C
ATOM 15433 N LEU C 664 207.305 210.353 217.420 1.00 39.14 N
ATOM 15434 CA LEU C 664 208.634 209.801 217.231 1.00 39.14 C
ATOM 15435 C LEU C 664 209.526 209.989 218.450 1.00 39.14 C
ATOM 15436 O LEU C 664 210.632 209.439 218.482 1.00 39.14 O
ATOM 15437 CB LEU C 664 209.275 210.440 215.988 1.00 39.14 C
ATOM 15438 CG LEU C 664 210.521 209.856 215.326 1.00 39.14 C
ATOM 15439 CD1 LEU C 664 210.534 210.180 213.849 1.00 39.14 C
ATOM 15440 CD2 LEU C 664 211.762 210.433 215.975 1.00 39.14 C
ATOM 15441 N GLU C 665 209.074 210.734 219.457 1.00 45.00 N
ATOM 15442 CA GLU C 665 209.763 210.826 220.735 1.00 45.00 C
ATOM 15443 C GLU C 665 209.252 209.808 221.743 1.00 45.00 C
ATOM 15444 O GLU C 665 209.821 209.690 222.833 1.00 45.00 O
ATOM 15445 CB GLU C 665 209.629 212.236 221.314 1.00 45.00 C
ATOM 15446 CG GLU C 665 210.380 213.297 220.534 1.00 45.00 C
ATOM 15447 CD GLU C 665 210.243 214.682 221.140 1.00 45.00 C
ATOM 15448 OE1 GLU C 665 209.466 214.840 222.104 1.00 45.00 O
ATOM 15449 OE2 GLU C 665 210.915 215.614 220.649 1.00 45.00 O
ATOM 15450 N LEU C 666 208.186 209.085 221.410 1.00 46.24 N

ATOM 15451 CA LEU C 666 207.719 207.960 222.208 1.00 46.24 C
ATOM 15452 C LEU C 666 208.495 206.688 221.916 1.00 46.24 C
ATOM 15453 O LEU C 666 208.739 205.890 222.825 1.00 46.24 O
ATOM 15454 CB LEU C 666 206.232 207.706 221.954 1.00 46.24 C
ATOM 15455 CG LEU C 666 205.255 208.800 222.376 1.00 46.24 C
ATOM 15456 CD1 LEU C 666 203.844 208.437 221.946 1.00 46.24 C
ATOM 15457 CD2 LEU C 666 205.321 209.025 223.873 1.00 46.24 C
ATOM 15458 N TYR C 667 208.871 206.478 220.654 1.00 41.41 N
ATOM 15459 CA TYR C 667 209.648 205.301 220.289 1.00 41.41 C
ATOM 15460 C TYR C 667 210.990 205.282 221.005 1.00 41.41 C
ATOM 15461 O TYR C 667 211.358 204.278 221.625 1.00 41.41 O
ATOM 15462 CB TYR C 667 209.833 205.258 218.775 1.00 41.41 C
ATOM 15463 CG TYR C 667 208.575 204.883 218.035 1.00 41.41 C
ATOM 15464 CD1 TYR C 667 207.557 204.197 218.671 1.00 41.41 C
ATOM 15465 CD2 TYR C 667 208.392 205.243 216.710 1.00 41.41 C
ATOM 15466 CE1 TYR C 667 206.407 203.853 218.002 1.00 41.41 C
ATOM 15467 CE2 TYR C 667 207.238 204.909 216.033 1.00 41.41 C
ATOM 15468 CZ TYR C 667 206.248 204.214 216.685 1.00 41.41 C
ATOM 15469 OH TYR C 667 205.096 203.877 216.016 1.00 41.41 O
ATOM 15470 N SER C 668 211.736 206.380 220.941 1.00 44.91 N
ATOM 15471 CA SER C 668 213.014 206.427 221.650 1.00 44.91 C
ATOM 15472 C SER C 668 212.847 206.953 223.070 1.00 44.91 C
ATOM 15473 O SER C 668 213.603 207.801 223.538 1.00 44.91 O
ATOM 15474 CB SER C 668 214.010 207.277 220.872 1.00 44.91 C
ATOM 15475 OG SER C 668 215.237 207.380 221.572 1.00 44.91 O
ATOM 15476 N GLN C 669 211.838 206.439 223.767 1.00 50.88 N
ATOM 15477 CA GLN C 669 211.747 206.587 225.212 1.00 50.88 C
ATOM 15478 C GLN C 669 211.222 205.334 225.898 1.00 50.88 C
ATOM 15479 O GLN C 669 211.305 205.250 227.127 1.00 50.88 O
ATOM 15480 CB GLN C 669 210.866 207.789 225.575 1.00 50.88 C
ATOM 15481 CG GLN C 669 210.919 208.188 227.040 1.00 50.88 C
ATOM 15482 CD GLN C 669 210.027 209.372 227.350 1.00 50.88 C
ATOM 15483 OE1 GLN C 669 209.316 209.872 226.478 1.00 50.88 O
ATOM 15484 NE2 GLN C 669 210.060 209.829 228.595 1.00 50.88 N

ATOM 15485 N LYS C 670 210.684 204.365 225.151 1.00 55.32 N
ATOM 15486 CA LYS C 670 210.198 203.089 225.684 1.00 55.32 C
ATOM 15487 C LYS C 670 208.912 203.242 226.501 1.00 55.32 C
ATOM 15488 O LYS C 670 208.770 202.645 227.568 1.00 55.32 O
ATOM 15489 CB LYS C 670 211.275 202.381 226.509 1.00 55.32 C
ATOM 15490 CG LYS C 670 212.264 201.572 225.687 1.00 55.32 C
ATOM 15491 CD LYS C 670 213.260 202.459 224.964 1.00 55.32 C
ATOM 15492 CE LYS C 670 214.310 201.624 224.245 1.00 55.32 C
ATOM 15493 NZ LYS C 670 215.243 202.463 223.443 1.00 55.32 N
ATOM 15494 N GLU C 671 207.966 204.040 225.997 1.00 60.75 N
ATOM 15495 CA GLU C 671 206.594 204.042 226.501 1.00 60.75 C
ATOM 15496 C GLU C 671 205.603 203.654 225.413 1.00 60.75 C
ATOM 15497 O GLU C 671 204.439 204.063 225.459 1.00 60.75 O
ATOM 15498 CB GLU C 671 206.206 205.402 227.085 1.00 60.75 C
ATOM 15499 CG GLU C 671 206.943 205.783 228.348 1.00 60.75 C
ATOM 15500 CD GLU C 671 208.284 206.379 228.031 1.00 60.75 C
ATOM 15501 OE1 GLU C 671 208.584 206.468 226.826 1.00 60.75 O
ATOM 15502 OE2 GLU C 671 209.021 206.764 228.962 1.00 60.75 O
ATOM 15503 N LEU C 672 206.044 202.869 224.437 1.00 61.19 N
ATOM 15504 CA LEU C 672 205.222 202.561 223.278 1.00 61.19 C
ATOM 15505 C LEU C 672 204.121 201.572 223.643 1.00 61.19 C
ATOM 15506 O LEU C 672 204.232 200.370 223.381 1.00 61.19 O
ATOM 15507 CB LEU C 672 206.116 202.046 222.143 1.00 61.19 C
ATOM 15508 CG LEU C 672 206.849 200.704 222.238 1.00 61.19 C
ATOM 15509 CD1 LEU C 672 207.339 200.271 220.867 1.00 61.19 C
ATOM 15510 CD2 LEU C 672 208.003 200.770 223.228 1.00 61.19 C
ATOM 15511 N ARG C 673 203.051 202.069 224.254 1.00 64.66 N
ATOM 15512 CA ARG C 673 201.937 201.193 224.603 1.00 64.66 C
ATOM 15513 C ARG C 673 200.571 201.734 224.197 1.00 64.66 C
ATOM 15514 O ARG C 673 199.683 200.942 223.873 1.00 64.66 O
ATOM 15515 CB ARG C 673 201.972 200.916 226.114 1.00 64.66 C
ATOM 15516 CG ARG C 673 200.956 199.900 226.594 1.00 64.66 C
ATOM 15517 CD ARG C 673 201.125 199.648 228.082 1.00 64.66 C
ATOM 15518 NE ARG C 673 200.808 200.833 228.872 1.00 64.66 N

ATOM 15519 CZ ARG C 673 201.065 200.956 230.170 1.00 64.66 C
ATOM 15520 NH1 ARG C 673 200.741 202.071 230.809 1.00 64.66 N
ATOM 15521 NH2 ARG C 673 201.653 199.967 230.828 1.00 64.66 N
ATOM 15522 N SER C 674 200.376 203.056 224.202 1.00 65.51 N
ATOM 15523 CA SER C 674 199.080 203.651 223.887 1.00 65.51 C
ATOM 15524 C SER C 674 199.117 204.474 222.608 1.00 65.51 C
ATOM 15525 O SER C 674 198.424 204.156 221.637 1.00 65.51 O
ATOM 15526 CB SER C 674 198.624 204.545 225.045 1.00 65.51 C
ATOM 15527 OG SER C 674 198.516 203.813 226.240 1.00 65.51 O
ATOM 15528 N SER C 675 199.931 205.526 222.584 1.00 62.78 N
ATOM 15529 CA SER C 675 200.275 206.237 221.365 1.00 62.78 C
ATOM 15530 C SER C 675 201.479 205.609 220.688 1.00 62.78 C
ATOM 15531 O SER C 675 202.128 206.259 219.862 1.00 62.78 O
ATOM 15532 CB SER C 675 200.539 207.715 221.666 1.00 62.78 C
ATOM 15533 OG SER C 675 200.860 208.428 220.484 1.00 62.78 O
ATOM 15534 N ASN C 676 201.814 204.378 221.085 1.00 61.04 N
ATOM 15535 CA ASN C 676 202.797 203.541 220.413 1.00 61.04 C
ATOM 15536 C ASN C 676 202.620 203.604 218.912 1.00 61.04 C
ATOM 15537 O ASN C 676 203.441 204.167 218.181 1.00 61.04 O
ATOM 15538 CB ASN C 676 202.605 202.100 220.895 1.00 61.04 C
ATOM 15539 CG ASN C 676 203.635 201.142 220.340 1.00 61.04 C
ATOM 15540 OD1 ASN C 676 204.548 201.530 219.612 1.00 61.04 O
ATOM 15541 ND2 ASN C 676 203.488 199.868 220.682 1.00 61.04 N
ATOM 15542 N VAL C 677 201.506 203.059 218.458 1.00 59.96 N
ATOM 15543 CA VAL C 677 201.108 203.068 217.074 1.00 59.96 C
ATOM 15544 C VAL C 677 199.606 203.302 217.043 1.00 59.96 C
ATOM 15545 O VAL C 677 198.924 203.241 218.068 1.00 59.96 O
ATOM 15546 CB VAL C 677 201.469 201.752 216.354 1.00 59.96 C
ATOM 15547 CG1 VAL C 677 202.969 201.529 216.375 1.00 59.96 C
ATOM 15548 CG2 VAL C 677 200.746 200.577 217.004 1.00 59.96 C
ATOM 15549 N PHE C 678 199.090 203.554 215.855 1.00 48.00 N
ATOM 15550 CA PHE C 678 197.661 203.590 215.654 1.00 48.00 C
ATOM 15551 C PHE C 678 197.149 202.465 214.791 1.00 48.00 C
ATOM 15552 O PHE C 678 195.948 202.177 214.838 1.00 48.00 O

ATOM 15553 CB PHE C 678 197.229 204.919 215.024 1.00 48.00 C
ATOM 15554 CG PHE C 678 197.064 206.003 216.012 1.00 48.00 C
ATOM 15555 CD1 PHE C 678 197.078 205.701 217.353 1.00 48.00 C
ATOM 15556 CD2 PHE C 678 196.851 207.306 215.619 1.00 48.00 C
ATOM 15557 CE1 PHE C 678 196.916 206.669 218.282 1.00 48.00 C
ATOM 15558 CE2 PHE C 678 196.684 208.289 216.556 1.00 48.00 C
ATOM 15559 CZ PHE C 678 196.719 207.967 217.894 1.00 48.00 C
ATOM 15560 N ASP C 679 198.011 201.813 214.021 1.00 45.24 N
ATOM 15561 CA ASP C 679 197.540 200.969 212.941 1.00 45.24 C
ATOM 15562 C ASP C 679 196.663 201.806 212.013 1.00 45.24 C
ATOM 15563 O ASP C 679 195.448 201.649 211.958 1.00 45.24 O
ATOM 15564 CB ASP C 679 196.790 199.750 213.484 1.00 45.24 C
ATOM 15565 CG ASP C 679 197.697 198.784 214.217 1.00 45.24 C
ATOM 15566 OD1 ASP C 679 198.888 198.689 213.855 1.00 45.24 O
ATOM 15567 OD2 ASP C 679 197.221 198.117 215.160 1.00 45.24 O
ATOM 15568 N LEU C 680 197.279 202.786 211.355 1.00 43.50 N
ATOM 15569 CA LEU C 680 196.512 203.640 210.457 1.00 43.50 C
ATOM 15570 C LEU C 680 196.319 202.964 209.108 1.00 43.50 C
ATOM 15571 O LEU C 680 195.209 202.943 208.564 1.00 43.50 O
ATOM 15572 CB LEU C 680 197.204 204.990 210.307 1.00 43.50 C
ATOM 15573 CG LEU C 680 197.252 205.812 211.597 1.00 43.50 C
ATOM 15574 CD1 LEU C 680 198.135 207.030 211.428 1.00 43.50 C
ATOM 15575 CD2 LEU C 680 195.855 206.230 212.016 1.00 43.50 C
ATOM 15576 N GLU C 681 197.389 202.401 208.560 1.00 44.73 N
ATOM 15577 CA GLU C 681 197.303 201.469 207.438 1.00 44.73 C
ATOM 15578 C GLU C 681 197.149 200.045 207.967 1.00 44.73 C
ATOM 15579 O GLU C 681 197.868 199.118 207.600 1.00 44.73 O
ATOM 15580 CB GLU C 681 198.536 201.611 206.551 1.00 44.73 C
ATOM 15581 CG GLU C 681 199.845 201.266 207.247 1.00 44.73 C
ATOM 15582 CD GLU C 681 201.054 201.534 206.374 1.00 44.73 C
ATOM 15583 OE1 GLU C 681 200.871 202.023 205.241 1.00 44.73 O
ATOM 15584 OE2 GLU C 681 202.187 201.259 206.820 1.00 44.73 O
ATOM 15585 N GLU C 682 196.151 199.884 208.835 1.00 46.71 N
ATOM 15586 CA GLU C 682 196.156 198.779 209.787 1.00 46.71 C

ATOM 15587 C GLU C 682 196.052 197.405 209.132 1.00 46.71 C
ATOM 15588 O GLU C 682 196.713 196.460 209.571 1.00 46.71 O
ATOM 15589 CB GLU C 682 195.077 199.008 210.850 1.00 46.71 C
ATOM 15590 CG GLU C 682 193.799 199.686 210.408 1.00 46.71 C
ATOM 15591 CD GLU C 682 193.022 200.199 211.610 1.00 46.71 C
ATOM 15592 OE1 GLU C 682 193.307 199.753 212.738 1.00 46.71 O
ATOM 15593 OE2 GLU C 682 192.219 201.143 211.458 1.00 46.71 O
ATOM 15594 N ILE C 683 195.286 197.271 208.053 1.00 39.93 N
ATOM 15595 CA ILE C 683 195.135 195.953 207.434 1.00 39.93 C
ATOM 15596 C ILE C 683 196.479 195.374 206.981 1.00 39.93 C
ATOM 15597 O ILE C 683 196.611 194.158 206.809 1.00 39.93 O
ATOM 15598 CB ILE C 683 194.108 196.003 206.289 1.00 39.93 C
ATOM 15599 CG1 ILE C 683 192.763 196.442 206.857 1.00 39.93 C
ATOM 15600 CG2 ILE C 683 193.946 194.638 205.642 1.00 39.93 C
ATOM 15601 CD1 ILE C 683 192.294 195.560 207.989 1.00 39.93 C
ATOM 15602 N MET C 684 197.498 196.222 206.827 1.00 42.50 N
ATOM 15603 CA MET C 684 198.884 195.761 206.802 1.00 42.50 C
ATOM 15604 C MET C 684 199.574 195.903 208.153 1.00 42.50 C
ATOM 15605 O MET C 684 200.335 195.021 208.558 1.00 42.50 O
ATOM 15606 CB MET C 684 199.691 196.522 205.745 1.00 42.50 C
ATOM 15607 CG MET C 684 201.132 196.065 205.616 1.00 42.50 C
ATOM 15608 SD MET C 684 201.279 194.383 205.008 1.00 42.50 S
ATOM 15609 CE MET C 684 202.917 193.956 205.593 1.00 42.50 C
ATOM 15610 N ARG C 685 199.353 197.011 208.853 1.00 44.38 N
ATOM 15611 CA ARG C 685 200.080 197.261 210.090 1.00 44.38 C
ATOM 15612 C ARG C 685 199.444 196.592 211.303 1.00 44.38 C
ATOM 15613 O ARG C 685 200.147 196.322 212.280 1.00 44.38 O
ATOM 15614 CB ARG C 685 200.187 198.763 210.332 1.00 44.38 C
ATOM 15615 CG ARG C 685 200.938 199.145 211.589 1.00 44.38 C
ATOM 15616 CD ARG C 685 202.396 198.747 211.493 1.00 44.38 C
ATOM 15617 NE ARG C 685 203.154 199.242 212.635 1.00 44.38 N
ATOM 15618 CZ ARG C 685 203.780 200.415 212.656 1.00 44.38 C
ATOM 15619 NH1 ARG C 685 203.753 201.204 211.590 1.00 44.38 N
ATOM 15620 NH2 ARG C 685 204.444 200.795 213.735 1.00 44.38 N

ATOM 15621 N GLU C 686 198.141 196.316 211.259 1.00 38.91 N
ATOM 15622 CA GLU C 686 197.434 195.829 212.438 1.00 38.91 C
ATOM 15623 C GLU C 686 197.693 194.357 212.719 1.00 38.91 C
ATOM 15624 O GLU C 686 197.511 193.922 213.859 1.00 38.91 O
ATOM 15625 CB GLU C 686 195.935 196.091 212.293 1.00 38.91 C
ATOM 15626 CG GLU C 686 195.086 195.784 213.504 1.00 38.91 C
ATOM 15627 CD GLU C 686 194.599 194.355 213.518 1.00 38.91 C
ATOM 15628 OE1 GLU C 686 194.483 193.754 212.431 1.00 38.91 O
ATOM 15629 OE2 GLU C 686 194.334 193.833 214.617 1.00 38.91 O
ATOM 15630 N PHE C 687 198.116 193.572 211.729 1.00 39.14 N
ATOM 15631 CA PHE C 687 198.343 192.155 211.963 1.00 39.14 C
ATOM 15632 C PHE C 687 199.782 191.868 212.374 1.00 39.14 C
ATOM 15633 O PHE C 687 200.054 190.812 212.951 1.00 39.14 O
ATOM 15634 CB PHE C 687 197.951 191.321 210.740 1.00 39.14 C
ATOM 15635 CG PHE C 687 198.853 191.480 209.532 1.00 39.14 C
ATOM 15636 CD1 PHE C 687 198.551 192.395 208.547 1.00 39.14 C
ATOM 15637 CD2 PHE C 687 199.986 190.691 209.373 1.00 39.14 C
ATOM 15638 CE1 PHE C 687 199.364 192.503 207.419 1.00 39.14 C
ATOM 15639 CE2 PHE C 687 200.788 190.815 208.284 1.00 39.14 C
ATOM 15640 CZ PHE C 687 200.487 191.717 207.308 1.00 39.14 C
ATOM 15641 N ASN C 688 200.703 192.787 212.095 1.00 37.61 N
ATOM 15642 CA ASN C 688 202.035 192.690 212.690 1.00 37.61 C
ATOM 15643 C ASN C 688 201.978 192.802 214.208 1.00 37.61 C
ATOM 15644 O ASN C 688 202.789 192.196 214.906 1.00 37.61 O
ATOM 15645 CB ASN C 688 202.948 193.790 212.116 1.00 37.61 C
ATOM 15646 CG ASN C 688 203.405 193.498 210.706 1.00 37.61 C
ATOM 15647 OD1 ASN C 688 203.668 192.351 210.352 1.00 37.61 O
ATOM 15648 ND2 ASN C 688 203.560 194.548 209.901 1.00 37.61 N
ATOM 15649 N SER C 689 201.011 193.567 214.731 1.00 38.42 N
ATOM 15650 CA SER C 689 200.958 193.814 216.170 1.00 38.42 C
ATOM 15651 C SER C 689 199.946 192.934 216.888 1.00 38.42 C
ATOM 15652 O SER C 689 200.048 192.772 218.107 1.00 38.42 O
ATOM 15653 CB SER C 689 200.619 195.288 216.433 1.00 38.42 C
ATOM 15654 OG SER C 689 201.626 196.142 215.924 1.00 38.42 O

ATOM 15655 N TYR C 690 198.966 192.373 216.165 1.00 36.32 N
ATOM 15656 CA TYR C 690 197.889 191.632 216.821 1.00 36.32 C
ATOM 15657 C TYR C 690 198.411 190.457 217.627 1.00 36.32 C
ATOM 15658 O TYR C 690 197.859 190.135 218.684 1.00 36.32 O
ATOM 15659 CB TYR C 690 196.880 191.124 215.794 1.00 36.32 C
ATOM 15660 CG TYR C 690 195.729 190.378 216.427 1.00 36.32 C
ATOM 15661 CD1 TYR C 690 194.694 191.060 217.046 1.00 36.32 C
ATOM 15662 CD2 TYR C 690 195.686 188.993 216.422 1.00 36.32 C
ATOM 15663 CE1 TYR C 690 193.643 190.386 217.629 1.00 36.32 C
ATOM 15664 CE2 TYR C 690 194.638 188.311 217.004 1.00 36.32 C
ATOM 15665 CZ TYR C 690 193.621 189.013 217.605 1.00 36.32 C
ATOM 15666 OH TYR C 690 192.576 188.336 218.186 1.00 36.32 O
ATOM 15667 N LYS C 691 199.461 189.805 217.150 1.00 36.87 N
ATOM 15668 CA LYS C 691 200.079 188.722 217.892 1.00 36.87 C
ATOM 15669 C LYS C 691 200.747 189.204 219.172 1.00 36.87 C
ATOM 15670 O LYS C 691 200.890 188.418 220.114 1.00 36.87 O
ATOM 15671 CB LYS C 691 201.099 188.032 216.996 1.00 36.87 C
ATOM 15672 CG LYS C 691 201.614 186.721 217.494 1.00 36.87 C
ATOM 15673 CD LYS C 691 202.673 186.248 216.531 1.00 36.87 C
ATOM 15674 CE LYS C 691 202.079 185.411 215.426 1.00 36.87 C
ATOM 15675 NZ LYS C 691 201.350 186.244 214.427 1.00 36.87 N
ATOM 15676 N GLN C 692 201.149 190.473 219.223 1.00 40.92 N
ATOM 15677 CA GLN C 692 201.715 191.087 220.417 1.00 40.92 C
ATOM 15678 C GLN C 692 200.679 191.351 221.493 1.00 40.92 C
ATOM 15679 O GLN C 692 200.972 191.177 222.680 1.00 40.92 O
ATOM 15680 CB GLN C 692 202.397 192.406 220.050 1.00 40.92 C
ATOM 15681 CG GLN C 692 202.904 193.204 221.235 1.00 40.92 C
ATOM 15682 CD GLN C 692 203.942 192.465 222.042 1.00 40.92 C
ATOM 15683 OE1 GLN C 692 203.663 191.984 223.138 1.00 40.92 O
ATOM 15684 NE2 GLN C 692 205.154 192.371 221.506 1.00 40.92 N
ATOM 15685 N ARG C 693 199.474 191.763 221.108 1.00 42.73 N
ATOM 15686 CA ARG C 693 198.431 192.128 222.053 1.00 42.73 C
ATOM 15687 C ARG C 693 197.567 190.940 222.458 1.00 42.73 C
ATOM 15688 O ARG C 693 196.407 191.124 222.841 1.00 42.73 O

ATOM 15689 CB ARG C 693 197.592 193.270 221.476 1.00 42.73 C
ATOM 15690 CG ARG C 693 198.367 194.585 221.483 1.00 42.73 C
ATOM 15691 CD ARG C 693 197.671 195.719 220.756 1.00 42.73 C
ATOM 15692 NE ARG C 693 198.469 196.942 220.820 1.00 42.73 N
ATOM 15693 CZ ARG C 693 198.244 198.036 220.098 1.00 42.73 C
ATOM 15694 NH1 ARG C 693 197.256 198.059 219.215 1.00 42.73 N
ATOM 15695 NH2 ARG C 693 199.025 199.095 220.238 1.00 42.73 N
ATOM 15696 N VAL C 694 198.111 189.726 222.379 1.00 40.75 N
ATOM 15697 CA VAL C 694 197.501 188.568 223.018 1.00 40.75 C
ATOM 15698 C VAL C 694 198.235 188.212 224.305 1.00 40.75 C
ATOM 15699 O VAL C 694 197.693 187.458 225.127 1.00 40.75 O
ATOM 15700 CB VAL C 694 197.468 187.366 222.053 1.00 40.75 C
ATOM 15701 CG1 VAL C 694 196.757 186.172 222.674 1.00 40.75 C
ATOM 15702 CG2 VAL C 694 196.809 187.776 220.766 1.00 40.75 C
ATOM 15703 N LYS C 695 199.442 188.738 224.510 1.00 46.61 N
ATOM 15704 CA LYS C 695 200.086 188.619 225.809 1.00 46.61 C
ATOM 15705 C LYS C 695 199.478 189.569 226.825 1.00 46.61 C
ATOM 15706 O LYS C 695 199.347 189.203 227.997 1.00 46.61 O
ATOM 15707 CB LYS C 695 201.581 188.899 225.702 1.00 46.61 C
ATOM 15708 CG LYS C 695 202.382 187.823 225.020 1.00 46.61 C
ATOM 15709 CD LYS C 695 203.852 188.151 225.145 1.00 46.61 C
ATOM 15710 CE LYS C 695 204.215 189.300 224.230 1.00 46.61 C
ATOM 15711 NZ LYS C 695 205.678 189.537 224.264 1.00 46.61 N
ATOM 15712 N TYR C 696 199.122 190.784 226.398 1.00 49.98 N
ATOM 15713 CA TYR C 696 198.476 191.737 227.294 1.00 49.98 C
ATOM 15714 C TYR C 696 197.235 191.131 227.933 1.00 49.98 C
ATOM 15715 O TYR C 696 196.958 191.352 229.116 1.00 49.98 O
ATOM 15716 CB TYR C 696 198.097 193.006 226.535 1.00 49.98 C
ATOM 15717 CG TYR C 696 199.242 193.866 226.062 1.00 49.98 C
ATOM 15718 CD1 TYR C 696 200.534 193.662 226.515 1.00 49.98 C
ATOM 15719 CD2 TYR C 696 199.017 194.901 225.167 1.00 49.98 C
ATOM 15720 CE1 TYR C 696 201.574 194.460 226.075 1.00 49.98 C
ATOM 15721 CE2 TYR C 696 200.041 195.699 224.725 1.00 49.98 C
ATOM 15722 CZ TYR C 696 201.316 195.478 225.178 1.00 49.98 C

ATOM 15723 OH TYR C 696 202.330 196.288 224.724 1.00 49.98 O
ATOM 15724 N VAL C 697 196.470 190.367 227.156 1.00 50.61 N
ATOM 15725 CA VAL C 697 195.259 189.754 227.682 1.00 50.61 C
ATOM 15726 C VAL C 697 195.602 188.676 228.702 1.00 50.61 C
ATOM 15727 O VAL C 697 195.224 188.769 229.875 1.00 50.61 O
ATOM 15728 CB VAL C 697 194.406 189.193 226.534 1.00 50.61 C
ATOM 15729 CG1 VAL C 697 193.265 188.395 227.092 1.00 50.61 C
ATOM 15730 CG2 VAL C 697 193.887 190.323 225.671 1.00 50.61 C
ATOM 15731 N GLU C 698 196.339 187.646 228.277 1.00 54.76 N
ATOM 15732 CA GLU C 698 196.545 186.484 229.135 1.00 54.76 C
ATOM 15733 C GLU C 698 197.365 186.807 230.373 1.00 54.76 C
ATOM 15734 O GLU C 698 197.046 186.321 231.464 1.00 54.76 O
ATOM 15735 CB GLU C 698 197.238 185.365 228.378 1.00 54.76 C
ATOM 15736 CG GLU C 698 197.436 184.160 229.261 1.00 54.76 C
ATOM 15737 CD GLU C 698 198.255 183.103 228.594 1.00 54.76 C
ATOM 15738 OE1 GLU C 698 198.703 183.352 227.458 1.00 54.76 O
ATOM 15739 OE2 GLU C 698 198.460 182.026 229.192 1.00 54.76 O
ATOM 15740 N ASP C 699 198.438 187.587 230.227 1.00 53.99 N
ATOM 15741 CA ASP C 699 199.279 187.932 231.371 1.00 53.99 C
ATOM 15742 C ASP C 699 198.464 188.615 232.462 1.00 53.99 C
ATOM 15743 O ASP C 699 198.784 188.512 233.650 1.00 53.99 O
ATOM 15744 CB ASP C 699 200.440 188.823 230.929 1.00 53.99 C
ATOM 15745 CG ASP C 699 201.403 189.122 232.059 1.00 53.99 C
ATOM 15746 OD1 ASP C 699 202.176 188.220 232.440 1.00 53.99 O
ATOM 15747 OD2 ASP C 699 201.385 190.259 232.573 1.00 53.99 O
ATOM 15748 N LYS C 700 197.409 189.322 232.070 1.00 56.38 N
ATOM 15749 CA LYS C 700 196.426 189.830 233.011 1.00 56.38 C
ATOM 15750 C LYS C 700 195.152 189.005 233.010 1.00 56.38 C
ATOM 15751 O LYS C 700 194.111 189.492 233.462 1.00 56.38 O
ATOM 15752 CB LYS C 700 196.155 191.294 232.694 1.00 56.38 C
ATOM 15753 CG LYS C 700 197.441 192.083 232.822 1.00 56.38 C
ATOM 15754 CD LYS C 700 197.313 193.546 232.490 1.00 56.38 C
ATOM 15755 CE LYS C 700 198.658 194.223 232.698 1.00 56.38 C
ATOM 15756 NZ LYS C 700 199.672 193.764 231.710 1.00 56.38 N

ATOM 15757 N VAL C 701 195.215 187.787 232.478 1.00 58.25 N
ATOM 15758 CA VAL C 701 194.175 186.780 232.653 1.00 58.25 C
ATOM 15759 C VAL C 701 194.436 185.998 233.929 1.00 58.25 C
ATOM 15760 O VAL C 701 193.527 185.786 234.738 1.00 58.25 O
ATOM 15761 CB VAL C 701 194.095 185.830 231.444 1.00 58.25 C
ATOM 15762 CG1 VAL C 701 193.351 184.560 231.817 1.00 58.25 C
ATOM 15763 CG2 VAL C 701 193.381 186.503 230.294 1.00 58.25 C
ATOM 15764 N VAL C 702 195.681 185.557 234.114 1.00 63.55 N
ATOM 15765 CA VAL C 702 195.998 184.694 235.243 1.00 63.55 C
ATOM 15766 C VAL C 702 195.989 185.452 236.564 1.00 63.55 C
ATOM 15767 O VAL C 702 195.876 184.833 237.627 1.00 63.55 O
ATOM 15768 CB VAL C 702 197.358 184.011 235.012 1.00 63.55 C
ATOM 15769 CG1 VAL C 702 198.473 185.043 235.004 1.00 63.55 C
ATOM 15770 CG2 VAL C 702 197.608 182.948 236.069 1.00 63.55 C
ATOM 15771 N ASP C 703 196.098 186.776 236.531 1.00 62.09 N
ATOM 15772 CA ASP C 703 196.155 187.566 237.756 1.00 62.09 C
ATOM 15773 C ASP C 703 194.790 187.750 238.415 1.00 62.09 C
ATOM 15774 O ASP C 703 194.633 187.409 239.594 1.00 62.09 O
ATOM 15775 CB ASP C 703 196.786 188.931 237.480 1.00 62.09 C
ATOM 15776 CG ASP C 703 198.278 188.842 237.233 1.00 62.09 C
ATOM 15777 OD1 ASP C 703 198.912 187.909 237.764 1.00 62.09 O
ATOM 15778 OD2 ASP C 703 198.819 189.710 236.518 1.00 62.09 O
ATOM 15779 N PRO C 704 193.783 188.282 237.712 1.00 63.84 N
ATOM 15780 CA PRO C 704 192.520 188.590 238.405 1.00 63.84 C
ATOM 15781 C PRO C 704 191.773 187.361 238.883 1.00 63.84 C
ATOM 15782 O PRO C 704 191.250 187.363 240.004 1.00 63.84 O
ATOM 15783 CB PRO C 704 191.723 189.366 237.348 1.00 63.84 C
ATOM 15784 CG PRO C 704 192.267 188.899 236.056 1.00 63.84 C
ATOM 15785 CD PRO C 704 193.729 188.658 236.290 1.00 63.84 C
ATOM 15786 N LEU C 705 191.700 186.310 238.076 1.00 71.26 N
ATOM 15787 CA LEU C 705 191.046 185.095 238.542 1.00 71.26 C
ATOM 15788 C LEU C 705 192.058 184.278 239.336 1.00 71.26 C
ATOM 15789 O LEU C 705 193.031 183.768 238.769 1.00 71.26 O
ATOM 15790 CB LEU C 705 190.455 184.308 237.369 1.00 71.26 C

ATOM 15791 CG LEU C 705 191.340 183.745 236.257 1.00 71.26 C
ATOM 15792 CD1 LEU C 705 191.785 182.324 236.566 1.00 71.26 C
ATOM 15793 CD2 LEU C 705 190.614 183.806 234.926 1.00 71.26 C
ATOM 15794 N PRO C 706 191.883 184.167 240.650 1.00 79.97 N
ATOM 15795 CA PRO C 706 192.905 183.539 241.495 1.00 79.97 C
ATOM 15796 C PRO C 706 193.044 182.059 241.191 1.00 79.97 C
ATOM 15797 O PRO C 706 192.105 181.279 241.408 1.00 79.97 O
ATOM 15798 CB PRO C 706 192.370 183.760 242.919 1.00 79.97 C
ATOM 15799 CG PRO C 706 191.432 184.916 242.798 1.00 79.97 C
ATOM 15800 CD PRO C 706 190.800 184.762 241.448 1.00 79.97 C
ATOM 15801 N PRO C 707 194.204 181.630 240.686 1.00 82.28 N
ATOM 15802 CA PRO C 707 194.420 180.184 240.530 1.00 82.28 C
ATOM 15803 C PRO C 707 194.539 179.471 241.862 1.00 82.28 C
ATOM 15804 O PRO C 707 194.145 178.303 241.976 1.00 82.28 O
ATOM 15805 CB PRO C 707 195.726 180.110 239.726 1.00 82.28 C
ATOM 15806 CG PRO C 707 195.864 181.459 239.086 1.00 82.28 C
ATOM 15807 CD PRO C 707 195.290 182.416 240.081 1.00 82.28 C
ATOM 15808 N TYR C 708 195.081 180.143 242.874 1.00 83.11 N
ATOM 15809 CA TYR C 708 195.306 179.566 244.187 1.00 83.11 C
ATOM 15810 C TYR C 708 194.532 180.348 245.243 1.00 83.11 C
ATOM 15811 O TYR C 708 193.892 181.363 244.963 1.00 83.11 O
ATOM 15812 CB TYR C 708 196.798 179.567 244.518 1.00 83.11 C
ATOM 15813 CG TYR C 708 197.636 178.756 243.567 1.00 83.11 C
ATOM 15814 CD1 TYR C 708 197.702 177.378 243.675 1.00 83.11 C
ATOM 15815 CD2 TYR C 708 198.367 179.371 242.562 1.00 83.11 C
ATOM 15816 CE1 TYR C 708 198.467 176.634 242.808 1.00 83.11 C
ATOM 15817 CE2 TYR C 708 199.138 178.635 241.690 1.00 83.11 C
ATOM 15818 CZ TYR C 708 199.185 177.266 241.817 1.00 83.11 C
ATOM 15819 OH TYR C 708 199.951 176.524 240.949 1.00 83.11 O
ATOM 15820 N LEU C 709 194.593 179.862 246.476 1.00 86.60 N
ATOM 15821 CA LEU C 709 194.175 180.649 247.624 1.00 86.60 C
ATOM 15822 C LEU C 709 195.395 181.374 248.192 1.00 86.60 C
ATOM 15823 O LEU C 709 196.429 181.501 247.532 1.00 86.60 O
ATOM 15824 CB LEU C 709 193.456 179.775 248.650 1.00 86.60 C

ATOM 15825 CG LEU C 709 194.122 178.532 249.232 1.00 86.60 C
ATOM 15826 CD1 LEU C 709 195.089 178.892 250.339 1.00 86.60 C
ATOM 15827 CD2 LEU C 709 193.041 177.605 249.760 1.00 86.60 C
ATOM 15828 N LYS C 710 195.263 181.890 249.416 1.00 88.28 N
ATOM 15829 CA LYS C 710 196.312 182.697 250.034 1.00 88.28 C
ATOM 15830 C LYS C 710 197.646 181.957 250.088 1.00 88.28 C
ATOM 15831 O LYS C 710 198.670 182.456 249.607 1.00 88.28 O
ATOM 15832 CB LYS C 710 195.872 183.110 251.440 1.00 88.28 C
ATOM 15833 CG LYS C 710 196.861 183.993 252.184 1.00 88.28 C
ATOM 15834 CD LYS C 710 196.310 184.403 253.542 1.00 88.28 C
ATOM 15835 CE LYS C 710 196.636 183.362 254.600 1.00 88.28 C
ATOM 15836 NZ LYS C 710 195.655 182.245 254.598 1.00 88.28 N
ATOM 15837 N GLY C 711 197.651 180.761 250.669 1.00 81.10 N
ATOM 15838 CA GLY C 711 198.881 180.088 251.039 1.00 81.10 C
ATOM 15839 C GLY C 711 199.889 179.749 249.957 1.00 81.10 C
ATOM 15840 O GLY C 711 200.980 180.327 249.937 1.00 81.10 O
ATOM 15841 N LEU C 712 199.536 178.816 249.064 1.00 78.12 N
ATOM 15842 CA LEU C 712 200.477 178.078 248.216 1.00 78.12 C
ATOM 15843 C LEU C 712 201.569 178.906 247.548 1.00 78.12 C
ATOM 15844 O LEU C 712 202.722 178.468 247.486 1.00 78.12 O
ATOM 15845 CB LEU C 712 199.724 177.310 247.129 1.00 78.12 C
ATOM 15846 CG LEU C 712 199.154 175.942 247.501 1.00 78.12 C
ATOM 15847 CD1 LEU C 712 197.929 176.084 248.380 1.00 78.12 C
ATOM 15848 CD2 LEU C 712 198.829 175.145 246.251 1.00 78.12 C
ATOM 15849 N ASP C 713 201.230 180.092 247.041 1.00 83.66 N
ATOM 15850 CA ASP C 713 202.231 180.894 246.348 1.00 83.66 C
ATOM 15851 C ASP C 713 203.377 181.306 247.263 1.00 83.66 C
ATOM 15852 O ASP C 713 204.466 181.620 246.771 1.00 83.66 O
ATOM 15853 CB ASP C 713 201.584 182.130 245.730 1.00 83.66 C
ATOM 15854 CG ASP C 713 202.531 182.887 244.825 1.00 83.66 C
ATOM 15855 OD1 ASP C 713 202.804 182.396 243.709 1.00 83.66 O
ATOM 15856 OD2 ASP C 713 203.005 183.969 245.227 1.00 83.66 O
ATOM 15857 N ASP C 714 203.160 181.310 248.577 1.00 79.72 N
ATOM 15858 CA ASP C 714 204.224 181.554 249.539 1.00 79.72 C

ATOM 15859 C ASP C 714 205.000 180.294 249.894 1.00 79.72 C
ATOM 15860 O ASP C 714 206.051 180.394 250.535 1.00 79.72 O
ATOM 15861 CB ASP C 714 203.650 182.171 250.818 1.00 79.72 C
ATOM 15862 CG ASP C 714 203.119 183.574 250.600 1.00 79.72 C
ATOM 15863 OD1 ASP C 714 203.636 184.274 249.704 1.00 79.72 O
ATOM 15864 OD2 ASP C 714 202.184 183.977 251.324 1.00 79.72 O
ATOM 15865 N LEU C 715 204.508 179.120 249.505 1.00 76.48 N
ATOM 15866 CA LEU C 715 205.199 177.859 249.743 1.00 76.48 C
ATOM 15867 C LEU C 715 206.037 177.416 248.555 1.00 76.48 C
ATOM 15868 O LEU C 715 207.173 176.969 248.738 1.00 76.48 O
ATOM 15869 CB LEU C 715 204.192 176.759 250.098 1.00 76.48 C
ATOM 15870 CG LEU C 715 204.732 175.402 250.560 1.00 76.48 C
ATOM 15871 CD1 LEU C 715 203.756 174.758 251.521 1.00 76.48 C
ATOM 15872 CD2 LEU C 715 204.980 174.477 249.385 1.00 76.48 C
ATOM 15873 N MET C 716 205.501 177.530 247.338 1.00 78.38 N
ATOM 15874 CA MET C 716 206.258 177.141 246.155 1.00 78.38 C
ATOM 15875 C MET C 716 207.479 178.025 245.947 1.00 78.38 C
ATOM 15876 O MET C 716 208.424 177.607 245.271 1.00 78.38 O
ATOM 15877 CB MET C 716 205.348 177.174 244.924 1.00 78.38 C
ATOM 15878 CG MET C 716 205.993 176.703 243.629 1.00 78.38 C
ATOM 15879 SD MET C 716 206.767 178.015 242.666 1.00 78.38 S
ATOM 15880 CE MET C 716 207.543 177.060 241.364 1.00 78.38 C
ATOM 15881 N SER C 717 207.484 179.231 246.513 1.00 78.15 N
ATOM 15882 CA SER C 717 208.667 180.081 246.539 1.00 78.15 C
ATOM 15883 C SER C 717 209.487 179.879 247.806 1.00 78.15 C
ATOM 15884 O SER C 717 210.715 179.783 247.742 1.00 78.15 O
ATOM 15885 CB SER C 717 208.269 181.555 246.403 1.00 78.15 C
ATOM 15886 OG SER C 717 209.413 182.389 246.456 1.00 78.15 O
ATOM 15887 N GLY C 718 208.827 179.811 248.965 1.00 76.86 N
ATOM 15888 CA GLY C 718 209.523 179.484 250.196 1.00 76.86 C
ATOM 15889 C GLY C 718 210.161 178.113 250.180 1.00 76.86 C
ATOM 15890 O GLY C 718 211.106 177.867 250.937 1.00 76.86 O
ATOM 15891 N LEU C 719 209.658 177.208 249.341 1.00 75.94 N
ATOM 15892 CA LEU C 719 210.312 175.935 249.081 1.00 75.94 C

ATOM 15893 C LEU C 719 211.072 175.932 247.763 1.00 75.94 C
ATOM 15894 O LEU C 719 211.994 175.127 247.598 1.00 75.94 O
ATOM 15895 CB LEU C 719 209.277 174.799 249.084 1.00 75.94 C
ATOM 15896 CG LEU C 719 209.727 173.334 249.102 1.00 75.94 C
ATOM 15897 CD1 LEU C 719 210.153 172.834 247.730 1.00 75.94 C
ATOM 15898 CD2 LEU C 719 210.844 173.141 250.112 1.00 75.94 C
ATOM 15899 N GLY C 720 210.730 176.830 246.842 1.00 81.60 N
ATOM 15900 CA GLY C 720 211.335 176.856 245.525 1.00 81.60 C
ATOM 15901 C GLY C 720 212.720 177.466 245.461 1.00 81.60 C
ATOM 15902 O GLY C 720 213.157 177.906 244.393 1.00 81.60 O
ATOM 15903 N ALA C 721 213.421 177.506 246.593 1.00 85.69 N
ATOM 15904 CA ALA C 721 214.808 177.947 246.638 1.00 85.69 C
ATOM 15905 C ALA C 721 215.749 176.790 246.945 1.00 85.69 C
ATOM 15906 O ALA C 721 216.681 176.528 246.180 1.00 85.69 O
ATOM 15907 CB ALA C 721 214.975 179.066 247.674 1.00 85.69 C
ATOM 15908 N ALA C 722 215.520 176.083 248.050 1.00 83.58 N
ATOM 15909 CA ALA C 722 216.319 174.921 248.415 1.00 83.58 C
ATOM 15910 C ALA C 722 215.735 174.263 249.657 1.00 83.58 C
ATOM 15911 O ALA C 722 215.077 174.929 250.462 1.00 83.58 O
ATOM 15912 CB ALA C 722 217.778 175.315 248.655 1.00 83.58 C
ATOM 15913 N GLY C 723 215.965 172.964 249.828 1.00 82.10 N
ATOM 15914 CA GLY C 723 215.457 172.297 251.008 1.00 82.10 C
ATOM 15915 C GLY C 723 215.489 170.783 250.994 1.00 82.10 C
ATOM 15916 O GLY C 723 215.244 170.142 249.968 1.00 82.10 O
ATOM 15917 N LYS C 724 215.794 170.210 252.154 1.00 77.83 N
ATOM 15918 CA LYS C 724 215.680 168.780 252.402 1.00 77.83 C
ATOM 15919 C LYS C 724 214.203 168.484 252.683 1.00 77.83 C
ATOM 15920 O LYS C 724 213.325 169.305 252.402 1.00 77.83 O
ATOM 15921 CB LYS C 724 216.642 168.391 253.531 1.00 77.83 C
ATOM 15922 CG LYS C 724 216.776 166.904 253.868 1.00 77.83 C
ATOM 15923 CD LYS C 724 217.428 166.111 252.753 1.00 77.83 C
ATOM 15924 CE LYS C 724 217.614 164.661 253.171 1.00 77.83 C
ATOM 15925 NZ LYS C 724 218.174 163.828 252.074 1.00 77.83 N
ATOM 15926 N ALA C 725 213.896 167.303 253.231 1.00 72.14 N

ATOM 15927 CA ALA C 725 212.530 166.978 253.636 1.00 72.14 C
ATOM 15928 C ALA C 725 211.954 167.971 254.644 1.00 72.14 C
ATOM 15929 O ALA C 725 210.733 167.999 254.834 1.00 72.14 O
ATOM 15930 CB ALA C 725 212.480 165.565 254.217 1.00 72.14 C
ATOM 15931 N VAL C 726 212.798 168.775 255.300 1.00 67.64 N
ATOM 15932 CA VAL C 726 212.310 169.880 256.120 1.00 67.64 C
ATOM 15933 C VAL C 726 211.443 170.824 255.299 1.00 67.64 C
ATOM 15934 O VAL C 726 210.511 171.441 255.827 1.00 67.64 O
ATOM 15935 CB VAL C 726 213.493 170.627 256.761 1.00 67.64 C
ATOM 15936 CG1 VAL C 726 214.286 169.691 257.656 1.00 67.64 C
ATOM 15937 CG2 VAL C 726 214.382 171.228 255.686 1.00 67.64 C
ATOM 15938 N GLY C 727 211.729 170.957 254.005 1.00 65.12 N
ATOM 15939 CA GLY C 727 210.902 171.757 253.123 1.00 65.12 C
ATOM 15940 C GLY C 727 209.643 171.042 252.679 1.00 65.12 C
ATOM 15941 O GLY C 727 208.879 171.564 251.862 1.00 65.12 O
ATOM 15942 N VAL C 728 209.418 169.841 253.207 1.00 64.15 N
ATOM 15943 CA VAL C 728 208.185 169.101 252.969 1.00 64.15 C
ATOM 15944 C VAL C 728 207.488 168.898 254.304 1.00 64.15 C
ATOM 15945 O VAL C 728 206.259 168.781 254.366 1.00 64.15 O
ATOM 15946 CB VAL C 728 208.456 167.757 252.273 1.00 64.15 C
ATOM 15947 CG1 VAL C 728 207.176 166.948 252.170 1.00 64.15 C
ATOM 15948 CG2 VAL C 728 209.052 167.990 250.898 1.00 64.15 C
ATOM 15949 N ALA C 729 208.269 168.858 255.384 1.00 62.59 N
ATOM 15950 CA ALA C 729 207.677 168.804 256.715 1.00 62.59 C
ATOM 15951 C ALA C 729 206.902 170.079 257.015 1.00 62.59 C
ATOM 15952 O ALA C 729 205.831 170.036 257.632 1.00 62.59 O
ATOM 15953 CB ALA C 729 208.761 168.571 257.766 1.00 62.59 C
ATOM 15954 N ILE C 730 207.432 171.228 256.589 1.00 65.27 N
ATOM 15955 CA ILE C 730 206.704 172.484 256.731 1.00 65.27 C
ATOM 15956 C ILE C 730 205.412 172.449 255.930 1.00 65.27 C
ATOM 15957 O ILE C 730 204.425 173.095 256.299 1.00 65.27 O
ATOM 15958 CB ILE C 730 207.596 173.668 256.314 1.00 65.27 C
ATOM 15959 CG1 ILE C 730 208.794 173.787 257.256 1.00 65.27 C
ATOM 15960 CG2 ILE C 730 206.796 174.955 256.302 1.00 65.27 C

ATOM 15961 CD1 ILE C 730 209.848 174.757 256.780 1.00 65.27 C
ATOM 15962 N GLY C 731 205.390 171.699 254.829 1.00 62.48 N
ATOM 15963 CA GLY C 731 204.173 171.539 254.056 1.00 62.48 C
ATOM 15964 C GLY C 731 203.101 170.711 254.732 1.00 62.48 C
ATOM 15965 O GLY C 731 201.993 170.612 254.195 1.00 62.48 O
ATOM 15966 N ALA C 732 203.402 170.112 255.884 1.00 63.78 N
ATOM 15967 CA ALA C 732 202.412 169.347 256.635 1.00 63.78 C
ATOM 15968 C ALA C 732 201.729 170.211 257.691 1.00 63.78 C
ATOM 15969 O ALA C 732 200.502 170.352 257.688 1.00 63.78 O
ATOM 15970 CB ALA C 732 203.071 168.123 257.282 1.00 63.78 C
ATOM 15971 N VAL C 733 202.513 170.792 258.603 1.00 64.86 N
ATOM 15972 CA VAL C 733 201.943 171.687 259.607 1.00 64.86 C
ATOM 15973 C VAL C 733 201.313 172.899 258.938 1.00 64.86 C
ATOM 15974 O VAL C 733 200.282 173.412 259.391 1.00 64.86 O
ATOM 15975 CB VAL C 733 203.015 172.095 260.634 1.00 64.86 C
ATOM 15976 CG1 VAL C 733 203.487 170.881 261.410 1.00 64.86 C
ATOM 15977 CG2 VAL C 733 204.184 172.767 259.939 1.00 64.86 C
ATOM 15978 N GLY C 734 201.920 173.380 257.853 1.00 66.73 N
ATOM 15979 CA GLY C 734 201.296 174.436 257.078 1.00 66.73 C
ATOM 15980 C GLY C 734 199.969 174.017 256.482 1.00 66.73 C
ATOM 15981 O GLY C 734 199.061 174.839 256.338 1.00 66.73 O
ATOM 15982 N GLY C 735 199.832 172.737 256.136 1.00 67.47 N
ATOM 15983 CA GLY C 735 198.590 172.270 255.543 1.00 67.47 C
ATOM 15984 C GLY C 735 197.421 172.325 256.506 1.00 67.47 C
ATOM 15985 O GLY C 735 196.302 172.668 256.119 1.00 67.47 O
ATOM 15986 N ALA C 736 197.661 171.985 257.773 1.00 68.40 N
ATOM 15987 CA ALA C 736 196.581 171.985 258.754 1.00 68.40 C
ATOM 15988 C ALA C 736 196.137 173.404 259.083 1.00 68.40 C
ATOM 15989 O ALA C 736 194.941 173.713 259.055 1.00 68.40 O
ATOM 15990 CB ALA C 736 197.021 171.249 260.019 1.00 68.40 C
ATOM 15991 N VAL C 737 197.091 174.282 259.400 1.00 66.99 N
ATOM 15992 CA VAL C 737 196.748 175.648 259.781 1.00 66.99 C
ATOM 15993 C VAL C 737 196.106 176.396 258.622 1.00 66.99 C
ATOM 15994 O VAL C 737 195.294 177.304 258.834 1.00 66.99 O

ATOM 15995 CB VAL C 737 197.994 176.386 260.301 1.00 66.99 C
ATOM 15996 CG1 VAL C 737 199.009 176.550 259.189 1.00 66.99 C
ATOM 15997 CG2 VAL C 737 197.602 177.733 260.862 1.00 66.99 C
ATOM 15998 N ALA C 738 196.446 176.033 257.386 1.00 66.95 N
ATOM 15999 CA ALA C 738 195.849 176.689 256.230 1.00 66.95 C
ATOM 16000 C ALA C 738 194.402 176.283 255.999 1.00 66.95 C
ATOM 16001 O ALA C 738 193.767 176.826 255.089 1.00 66.95 O
ATOM 16002 CB ALA C 738 196.670 176.397 254.975 1.00 66.95 C
ATOM 16003 N SER C 739 193.869 175.345 256.781 1.00 72.75 N
ATOM 16004 CA SER C 739 192.458 174.994 256.717 1.00 72.75 C
ATOM 16005 C SER C 739 191.640 175.625 257.833 1.00 72.75 C
ATOM 16006 O SER C 739 190.419 175.752 257.689 1.00 72.75 O
ATOM 16007 CB SER C 739 192.285 173.472 256.766 1.00 72.75 C
ATOM 16008 OG SER C 739 190.914 173.115 256.738 1.00 72.75 O
ATOM 16009 N VAL C 740 192.278 176.016 258.932 1.00 74.83 N
ATOM 16010 CA VAL C 740 191.593 176.711 260.017 1.00 74.83 C
ATOM 16011 C VAL C 740 191.635 178.219 259.819 1.00 74.83 C
ATOM 16012 O VAL C 740 190.631 178.909 260.011 1.00 74.83 O
ATOM 16013 CB VAL C 740 192.202 176.305 261.374 1.00 74.83 C
ATOM 16014 CG1 VAL C 740 191.618 177.151 262.487 1.00 74.83 C
ATOM 16015 CG2 VAL C 740 191.951 174.832 261.642 1.00 74.83 C
ATOM 16016 N VAL C 741 192.795 178.756 259.434 1.00 72.05 N
ATOM 16017 CA VAL C 741 192.893 180.189 259.174 1.00 72.05 C
ATOM 16018 C VAL C 741 192.046 180.578 257.973 1.00 72.05 C
ATOM 16019 O VAL C 741 191.599 181.726 257.864 1.00 72.05 O
ATOM 16020 CB VAL C 741 194.366 180.597 258.985 1.00 72.05 C
ATOM 16021 CG1 VAL C 741 194.465 182.051 258.568 1.00 72.05 C
ATOM 16022 CG2 VAL C 741 195.138 180.361 260.268 1.00 72.05 C
ATOM 16023 N GLU C 742 191.805 179.641 257.057 1.00 80.93 N
ATOM 16024 CA GLU C 742 190.847 179.888 255.987 1.00 80.93 C
ATOM 16025 C GLU C 742 189.417 179.676 256.458 1.00 80.93 C
ATOM 16026 O GLU C 742 188.494 180.306 255.930 1.00 80.93 O
ATOM 16027 CB GLU C 742 191.146 178.991 254.788 1.00 80.93 C
ATOM 16028 CG GLU C 742 192.441 179.329 254.076 1.00 80.93 C

ATOM 16029 CD GLU C 742 192.398 180.692 253.416 1.00 80.93 C
ATOM 16030 OE1 GLU C 742 191.301 181.114 252.994 1.00 80.93 O
ATOM 16031 OE2 GLU C 742 193.460 181.340 253.315 1.00 80.93 O
ATOM 16032 N GLY C 743 189.214 178.801 257.442 1.00 80.96 N
ATOM 16033 CA GLY C 743 187.904 178.628 258.039 1.00 80.96 C
ATOM 16034 C GLY C 743 187.453 179.789 258.897 1.00 80.96 C
ATOM 16035 O GLY C 743 186.262 179.874 259.215 1.00 80.96 O
ATOM 16036 N VAL C 744 188.367 180.679 259.276 1.00 75.16 N
ATOM 16037 CA VAL C 744 188.024 181.878 260.026 1.00 75.16 C
ATOM 16038 C VAL C 744 188.283 183.133 259.195 1.00 75.16 C
ATOM 16039 O VAL C 744 188.436 184.219 259.737 1.00 75.16 O
ATOM 16040 CB VAL C 744 188.778 181.928 261.370 1.00 75.16 C
ATOM 16041 CG1 VAL C 744 190.243 182.275 261.152 1.00 75.16 C
ATOM 16042 CG2 VAL C 744 188.107 182.894 262.338 1.00 75.16 C
ATOM 16043 N ALA C 745 188.343 182.985 257.873 1.00 75.62 N
ATOM 16044 CA ALA C 745 188.445 184.119 256.967 1.00 75.62 C
ATOM 16045 C ALA C 745 187.158 184.396 256.213 1.00 75.62 C
ATOM 16046 O ALA C 745 186.911 185.543 255.838 1.00 75.62 O
ATOM 16047 CB ALA C 745 189.575 183.901 255.954 1.00 75.62 C
ATOM 16048 N THR C 746 186.333 183.372 255.985 1.00 73.96 N
ATOM 16049 CA THR C 746 184.988 183.602 255.476 1.00 73.96 C
ATOM 16050 C THR C 746 184.104 184.257 256.525 1.00 73.96 C
ATOM 16051 O THR C 746 183.100 184.886 256.176 1.00 73.96 O
ATOM 16052 CB THR C 746 184.369 182.282 255.012 1.00 73.96 C
ATOM 16053 OG1 THR C 746 185.200 181.694 254.004 1.00 73.96 O
ATOM 16054 CG2 THR C 746 182.984 182.512 254.434 1.00 73.96 C
ATOM 16055 N PHE C 747 184.469 184.134 257.801 1.00 67.55 N
ATOM 16056 CA PHE C 747 183.767 184.813 258.879 1.00 67.55 C
ATOM 16057 C PHE C 747 183.984 186.320 258.852 1.00 67.55 C
ATOM 16058 O PHE C 747 183.229 187.051 259.502 1.00 67.55 O
ATOM 16059 CB PHE C 747 184.223 184.227 260.218 1.00 67.55 C
ATOM 16060 CG PHE C 747 183.483 184.761 261.407 1.00 67.55 C
ATOM 16061 CD1 PHE C 747 182.198 184.336 261.687 1.00 67.55 C
ATOM 16062 CD2 PHE C 747 184.079 185.677 262.254 1.00 67.55 C

ATOM 16063 CE1 PHE C 747 181.518 184.821 262.784 1.00 67.55 C
ATOM 16064 CE2 PHE C 747 183.404 186.166 263.352 1.00 67.55 C
ATOM 16065 CZ PHE C 747 182.121 185.738 263.617 1.00 67.55 C
ATOM 16066 N LEU C 748 184.979 186.803 258.105 1.00 68.53 N
ATOM 16067 CA LEU C 748 185.238 188.229 257.956 1.00 68.53 C
ATOM 16068 C LEU C 748 184.756 188.768 256.614 1.00 68.53 C
ATOM 16069 O LEU C 748 185.329 189.724 256.083 1.00 68.53 O
ATOM 16070 CB LEU C 748 186.726 188.524 258.138 1.00 68.53 C
ATOM 16071 CG LEU C 748 187.297 188.309 259.538 1.00 68.53 C
ATOM 16072 CD1 LEU C 748 188.798 188.538 259.541 1.00 68.53 C
ATOM 16073 CD2 LEU C 748 186.612 189.228 260.529 1.00 68.53 C
ATOM 16074 N LYS C 749 183.711 188.168 256.053 1.00 72.54 N
ATOM 16075 CA LYS C 749 183.067 188.689 254.856 1.00 72.54 C
ATOM 16076 C LYS C 749 181.570 188.871 255.010 1.00 72.54 C
ATOM 16077 O LYS C 749 181.000 189.728 254.323 1.00 72.54 O
ATOM 16078 CB LYS C 749 183.339 187.773 253.654 1.00 72.54 C
ATOM 16079 CG LYS C 749 184.806 187.668 253.296 1.00 72.54 C
ATOM 16080 CD LYS C 749 185.323 188.993 252.771 1.00 72.54 C
ATOM 16081 CE LYS C 749 186.798 188.913 252.424 1.00 72.54 C
ATOM 16082 NZ LYS C 749 187.045 188.036 251.248 1.00 72.54 N
ATOM 16083 N ASN C 750 180.920 188.110 255.872 1.00 72.25 N
ATOM 16084 CA ASN C 750 179.547 188.372 256.257 1.00 72.25 C
ATOM 16085 C ASN C 750 179.523 189.615 257.131 1.00 72.25 C
ATOM 16086 O ASN C 750 180.075 189.583 258.239 1.00 72.25 O
ATOM 16087 CB ASN C 750 178.979 187.178 257.011 1.00 72.25 C
ATOM 16088 CG ASN C 750 178.836 185.958 256.135 1.00 72.25 C
ATOM 16089 OD1 ASN C 750 178.356 186.042 255.006 1.00 72.25 O
ATOM 16090 ND2 ASN C 750 179.278 184.816 256.640 1.00 72.25 N
ATOM 16091 N PRO C 751 178.907 190.717 256.697 1.00 73.56 N
ATOM 16092 CA PRO C 751 178.969 191.959 257.487 1.00 73.56 C
ATOM 16093 C PRO C 751 178.335 191.863 258.869 1.00 73.56 C
ATOM 16094 O PRO C 751 178.459 192.817 259.646 1.00 73.56 O
ATOM 16095 CB PRO C 751 178.226 192.971 256.605 1.00 73.56 C
ATOM 16096 CG PRO C 751 178.360 192.423 255.221 1.00 73.56 C

ATOM 16097 CD PRO C 751 178.291 190.933 255.379 1.00 73.56 C
ATOM 16098 N PHE C 752 177.667 190.758 259.202 1.00 70.74 N
ATOM 16099 CA PHE C 752 177.253 190.533 260.581 1.00 70.74 C
ATOM 16100 C PHE C 752 178.424 190.060 261.433 1.00 70.74 C
ATOM 16101 O PHE C 752 178.647 190.579 262.532 1.00 70.74 O
ATOM 16102 CB PHE C 752 176.119 189.509 260.630 1.00 70.74 C
ATOM 16103 CG PHE C 752 174.835 189.993 260.027 1.00 70.74 C
ATOM 16104 CD1 PHE C 752 174.613 191.342 259.821 1.00 70.74 C
ATOM 16105 CD2 PHE C 752 173.854 189.094 259.652 1.00 70.74 C
ATOM 16106 CE1 PHE C 752 173.433 191.784 259.263 1.00 70.74 C
ATOM 16107 CE2 PHE C 752 172.674 189.530 259.092 1.00 70.74 C
ATOM 16108 CZ PHE C 752 172.463 190.877 258.897 1.00 70.74 C
ATOM 16109 N GLY C 753 179.181 189.081 260.936 1.00 69.96 N
ATOM 16110 CA GLY C 753 180.307 188.566 261.697 1.00 69.96 C
ATOM 16111 C GLY C 753 181.397 189.598 261.911 1.00 69.96 C
ATOM 16112 O GLY C 753 181.953 189.705 263.008 1.00 69.96 O
ATOM 16113 N ALA C 754 181.727 190.363 260.867 1.00 68.50 N
ATOM 16114 CA ALA C 754 182.719 191.422 261.011 1.00 68.50 C
ATOM 16115 C ALA C 754 182.285 192.455 262.040 1.00 68.50 C
ATOM 16116 O ALA C 754 183.130 193.080 262.690 1.00 68.50 O
ATOM 16117 CB ALA C 754 182.977 192.091 259.662 1.00 68.50 C
ATOM 16118 N PHE C 755 180.976 192.650 262.200 1.00 66.70 N
ATOM 16119 CA PHE C 755 180.461 193.506 263.257 1.00 66.70 C
ATOM 16120 C PHE C 755 180.483 192.823 264.616 1.00 66.70 C
ATOM 16121 O PHE C 755 180.528 193.511 265.641 1.00 66.70 O
ATOM 16122 CB PHE C 755 179.036 193.944 262.920 1.00 66.70 C
ATOM 16123 CG PHE C 755 178.438 194.893 263.914 1.00 66.70 C
ATOM 16124 CD1 PHE C 755 178.808 196.225 263.927 1.00 66.70 C
ATOM 16125 CD2 PHE C 755 177.500 194.455 264.829 1.00 66.70 C
ATOM 16126 CE1 PHE C 755 178.256 197.100 264.838 1.00 66.70 C
ATOM 16127 CE2 PHE C 755 176.944 195.326 265.741 1.00 66.70 C
ATOM 16128 CZ PHE C 755 177.324 196.650 265.747 1.00 66.70 C
ATOM 16129 N THR C 756 180.461 191.491 264.647 1.00 67.81 N
ATOM 16130 CA THR C 756 180.520 190.746 265.896 1.00 67.81 C

ATOM 16131 C THR C 756 181.934 190.612 266.442 1.00 67.81 C
ATOM 16132 O THR C 756 182.102 190.144 267.573 1.00 67.81 O
ATOM 16133 CB THR C 756 179.916 189.351 265.712 1.00 67.81 C
ATOM 16134 OG1 THR C 756 180.649 188.641 264.706 1.00 67.81 O
ATOM 16135 CG2 THR C 756 178.458 189.452 265.298 1.00 67.81 C
ATOM 16136 N ILE C 757 182.945 191.000 265.672 1.00 68.18 N
ATOM 16137 CA ILE C 757 184.313 191.074 266.160 1.00 68.18 C
ATOM 16138 C ILE C 757 184.677 192.489 266.584 1.00 68.18 C
ATOM 16139 O ILE C 757 185.383 192.681 267.574 1.00 68.18 O
ATOM 16140 CB ILE C 757 185.298 190.546 265.096 1.00 68.18 C
ATOM 16141 CG1 ILE C 757 185.092 189.047 264.876 1.00 68.18 C
ATOM 16142 CG2 ILE C 757 186.729 190.850 265.499 1.00 68.18 C
ATOM 16143 CD1 ILE C 757 185.852 188.493 263.693 1.00 68.18 C
ATOM 16144 N ILE C 758 184.197 193.491 265.844 1.00 69.72 N
ATOM 16145 CA ILE C 758 184.469 194.875 266.211 1.00 69.72 C
ATOM 16146 C ILE C 758 183.811 195.219 267.540 1.00 69.72 C
ATOM 16147 O ILE C 758 184.300 196.083 268.277 1.00 69.72 O
ATOM 16148 CB ILE C 758 184.013 195.820 265.087 1.00 69.72 C
ATOM 16149 CG1 ILE C 758 184.816 195.547 263.815 1.00 69.72 C
ATOM 16150 CG2 ILE C 758 184.170 197.268 265.512 1.00 69.72 C
ATOM 16151 CD1 ILE C 758 184.276 196.243 262.593 1.00 69.72 C
ATOM 16152 N LEU C 759 182.702 194.557 267.874 1.00 69.69 N
ATOM 16153 CA LEU C 759 182.103 194.746 269.191 1.00 69.69 C
ATOM 16154 C LEU C 759 182.978 194.140 270.279 1.00 69.69 C
ATOM 16155 O LEU C 759 183.223 194.769 271.315 1.00 69.69 O
ATOM 16156 CB LEU C 759 180.703 194.133 269.230 1.00 69.69 C
ATOM 16157 CG LEU C 759 179.619 194.786 268.376 1.00 69.69 C
ATOM 16158 CD1 LEU C 759 178.344 193.965 268.444 1.00 69.69 C
ATOM 16159 CD2 LEU C 759 179.366 196.209 268.837 1.00 69.69 C
ATOM 16160 N VAL C 760 183.453 192.911 270.063 1.00 70.30 N
ATOM 16161 CA VAL C 760 184.262 192.235 271.072 1.00 70.30 C
ATOM 16162 C VAL C 760 185.562 192.982 271.321 1.00 70.30 C
ATOM 16163 O VAL C 760 186.042 193.046 272.459 1.00 70.30 O
ATOM 16164 CB VAL C 760 184.527 190.778 270.652 1.00 70.30 C

ATOM 16165 CG1 VAL C 760 185.469 190.111 271.636 1.00 70.30 C
ATOM 16166 CG2 VAL C 760 183.221 190.010 270.553 1.00 70.30 C
ATOM 16167 N ALA C 761 186.154 193.558 270.274 1.00 72.87 N
ATOM 16168 CA ALA C 761 187.403 194.292 270.449 1.00 72.87 C
ATOM 16169 C ALA C 761 187.187 195.569 271.249 1.00 72.87 C
ATOM 16170 O ALA C 761 187.986 195.896 272.134 1.00 72.87 O
ATOM 16171 CB ALA C 761 188.023 194.607 269.089 1.00 72.87 C
ATOM 16172 N ILE C 762 186.116 196.307 270.948 1.00 73.74 N
ATOM 16173 CA ILE C 762 185.841 197.548 271.663 1.00 73.74 C
ATOM 16174 C ILE C 762 185.568 197.271 273.135 1.00 73.74 C
ATOM 16175 O ILE C 762 185.967 198.047 274.011 1.00 73.74 O
ATOM 16176 CB ILE C 762 184.670 198.295 271.002 1.00 73.74 C
ATOM 16177 CG1 ILE C 762 185.047 198.724 269.583 1.00 73.74 C
ATOM 16178 CG2 ILE C 762 184.266 199.495 271.837 1.00 73.74 C
ATOM 16179 CD1 ILE C 762 183.879 199.235 268.771 1.00 73.74 C
ATOM 16180 N ALA C 763 184.882 196.167 273.432 1.00 76.73 N
ATOM 16181 CA ALA C 763 184.604 195.822 274.820 1.00 76.73 C
ATOM 16182 C ALA C 763 185.863 195.448 275.588 1.00 76.73 C
ATOM 16183 O ALA C 763 185.899 195.619 276.810 1.00 76.73 O
ATOM 16184 CB ALA C 763 183.595 194.675 274.886 1.00 76.73 C
ATOM 16185 N VAL C 764 186.891 194.945 274.902 1.00 78.16 N
ATOM 16186 CA VAL C 764 188.122 194.539 275.579 1.00 78.16 C
ATOM 16187 C VAL C 764 188.780 195.736 276.254 1.00 78.16 C
ATOM 16188 O VAL C 764 189.085 195.708 277.452 1.00 78.16 O
ATOM 16189 CB VAL C 764 189.083 193.858 274.591 1.00 78.16 C
ATOM 16190 CG1 VAL C 764 190.430 193.625 275.248 1.00 78.16 C
ATOM 16191 CG2 VAL C 764 188.497 192.543 274.110 1.00 78.16 C
ATOM 16192 N VAL C 765 189.019 196.801 275.487 1.00 81.19 N
ATOM 16193 CA VAL C 765 189.686 197.979 276.035 1.00 81.19 C
ATOM 16194 C VAL C 765 188.845 198.619 277.130 1.00 81.19 C
ATOM 16195 O VAL C 765 189.386 199.201 278.079 1.00 81.19 O
ATOM 16196 CB VAL C 765 190.006 198.981 274.909 1.00 81.19 C
ATOM 16197 CG1 VAL C 765 190.618 200.246 275.484 1.00 81.19 C
ATOM 16198 CG2 VAL C 765 190.938 198.348 273.887 1.00 81.19 C

ATOM 16199 N ILE C 766 187.519 198.525 277.026 1.00 82.09 N
ATOM 16200 CA ILE C 766 186.656 199.077 278.064 1.00 82.09 C
ATOM 16201 C ILE C 766 186.797 198.284 279.357 1.00 82.09 C
ATOM 16202 O ILE C 766 186.772 198.852 280.455 1.00 82.09 O
ATOM 16203 CB ILE C 766 185.196 199.119 277.580 1.00 82.09 C
ATOM 16204 CG1 ILE C 766 185.060 200.065 276.387 1.00 82.09 C
ATOM 16205 CG2 ILE C 766 184.275 199.545 278.709 1.00 82.09 C
ATOM 16206 CD1 ILE C 766 183.721 199.979 275.691 1.00 82.09 C
ATOM 16207 N ILE C 767 186.946 196.961 279.252 1.00 83.79 N
ATOM 16208 CA ILE C 767 187.139 196.134 280.437 1.00 83.79 C
ATOM 16209 C ILE C 767 188.442 196.470 281.145 1.00 83.79 C
ATOM 16210 O ILE C 767 188.572 196.230 282.350 1.00 83.79 O
ATOM 16211 CB ILE C 767 187.079 194.639 280.059 1.00 83.79 C
ATOM 16212 CG1 ILE C 767 185.716 194.299 279.459 1.00 83.79 C
ATOM 16213 CG2 ILE C 767 187.347 193.766 281.271 1.00 83.79 C
ATOM 16214 CD1 ILE C 767 184.561 194.534 280.404 1.00 83.79 C
ATOM 16215 N ILE C 768 189.418 197.027 280.424 1.00 86.70 N
ATOM 16216 CA ILE C 768 190.639 197.502 281.067 1.00 86.70 C
ATOM 16217 C ILE C 768 190.318 198.604 282.066 1.00 86.70 C
ATOM 16218 O ILE C 768 190.944 198.704 283.128 1.00 86.70 O
ATOM 16219 CB ILE C 768 191.649 197.979 280.008 1.00 86.70 C
ATOM 16220 CG1 ILE C 768 192.010 196.837 279.058 1.00 86.70 C
ATOM 16221 CG2 ILE C 768 192.891 198.541 280.676 1.00 86.70 C
ATOM 16222 CD1 ILE C 768 192.671 195.664 279.742 1.00 86.70 C
ATOM 16223 N TYR C 769 189.337 199.442 281.746 1.00 93.45 N
ATOM 16224 CA TYR C 769 188.965 200.557 282.604 1.00 93.45 C
ATOM 16225 C TYR C 769 187.467 200.557 282.889 1.00 93.45 C
ATOM 16226 O TYR C 769 186.939 199.619 283.485 1.00 93.45 O
ATOM 16227 CB TYR C 769 189.381 201.880 281.961 1.00 93.45 C
ATOM 16228 CG TYR C 769 189.069 203.098 282.797 1.00 93.45 C
ATOM 16229 CD1 TYR C 769 189.830 203.408 283.916 1.00 93.45 C
ATOM 16230 CD2 TYR C 769 188.020 203.942 282.463 1.00 93.45 C
ATOM 16231 CE1 TYR C 769 189.550 204.522 284.682 1.00 93.45 C
ATOM 16232 CE2 TYR C 769 187.733 205.059 283.222 1.00 93.45 C

```
ATOM  16233  CZ  TYR C 769     188.501 205.345 284.331  1.00 93.45           C
ATOM  16234  OH  TYR C 769     188.218 206.457 285.090  1.00 93.45           O
TER
HETATM16235  C1  NAG C1001     142.299 188.866 234.379  1.00 66.11           C
HETATM16236  C2  NAG C1001     140.938 188.854 233.637  1.00 66.11           C
HETATM16237  C3  NAG C1001     140.873 187.746 232.575  1.00 66.11           C
HETATM16238  C4  NAG C1001     142.163 187.583 231.782  1.00 66.11           C
HETATM16239  C5  NAG C1001     143.354 187.585 232.722  1.00 66.11           C
HETATM16240  C6  NAG C1001     144.684 187.522 232.014  1.00 66.11           C
HETATM16241  C7  NAG C1001     139.515 189.550 235.535  1.00 66.11           C
HETATM16242  C8  NAG C1001     138.356 189.159 236.404  1.00 66.11           C
HETATM16243  N2  NAG C1001     139.845 188.675 234.580  1.00 66.11           N
HETATM16244  O3  NAG C1001     139.815 188.074 231.685  1.00 66.11           O
HETATM16245  O4  NAG C1001     142.149 186.323 231.120  1.00 66.11           O
HETATM16246  O5  NAG C1001     143.342 188.806 233.458  1.00 66.11           O
HETATM16247  O6  NAG C1001     145.738 187.856 232.906  1.00 66.11           O
HETATM16248  O7  NAG C1001     140.130 190.598 235.703  1.00 66.11           O
HETATM16249  H1  NAG C1001     142.348 188.107 234.989  1.00 66.11           H
HETATM16250  H2  NAG C1001     140.833 189.713 233.182  1.00 66.11           H
HETATM16251  H3  NAG C1001     140.659 186.896 233.004  1.00 66.11           H
HETATM16252  H4  NAG C1001     142.255 188.304 231.132  1.00 66.11           H
HETATM16253  H5  NAG C1001     143.283 186.830 233.335  1.00 66.11           H
HETATM16254  H61 NAG C1001     144.682 188.153 231.275  1.00 66.11           H
HETATM16255  H62 NAG C1001     144.825 186.622 231.676  1.00 66.11           H
HETATM16256  H81 NAG C1001     138.656 188.510 237.068  1.00 66.11           H
HETATM16257  H82 NAG C1001     137.663 188.748 235.856  1.00 66.11           H
HETATM16258  H83 NAG C1001     137.998 189.948 236.853  1.00 66.11           H
HETATM16259  HN2 NAG C1001     139.348 187.915 234.510  1.00 66.11           H
HETATM16260  HO3 NAG C1001     140.144 188.489 230.971  1.00 66.11           H
HETATM16261  HO6 NAG C1001     145.401 188.052 233.704  1.00 66.11           H
HETATM16262  C1  NAG C1002     141.271 186.150 229.970  1.00 72.06           C
HETATM16263  C2  NAG C1002     140.542 184.844 230.215  1.00 72.06           C
HETATM16264  C3  NAG C1002     139.852 184.396 228.939  1.00 72.06           C
HETATM16265  C4  NAG C1002     139.410 185.594 228.101  1.00 72.06           C
```

HETATM16266	C5	NAG C1002	139.189	186.873	228.924	1.00	72.06	C
HETATM16267	C6	NAG C1002	137.955	186.806	229.799	1.00	72.06	C
HETATM16268	C7	NAG C1002	141.583	183.519	232.002	1.00	72.06	C
HETATM16269	C8	NAG C1002	142.549	182.423	232.327	1.00	72.06	C
HETATM16270	N2	NAG C1002	141.441	183.811	230.704	1.00	72.06	N
HETATM16271	O3	NAG C1002	138.722	183.594	229.273	1.00	72.06	O
HETATM16272	O4	NAG C1002	140.382	185.858	227.097	1.00	72.06	O
HETATM16273	O5	NAG C1002	140.309	187.200	229.774	1.00	72.06	O
HETATM16274	O6	NAG C1002	137.287	188.060	229.846	1.00	72.06	O
HETATM16275	O7	NAG C1002	140.963	184.118	232.876	1.00	72.06	O
HETATM16276	H1	NAG C1002	141.840	186.073	229.180	1.00	72.06	H
HETATM16277	H2	NAG C1002	139.852	184.996	230.887	1.00	72.06	H
HETATM16278	H3	NAG C1002	140.489	183.882	228.409	1.00	72.06	H
HETATM16279	H4	NAG C1002	138.573	185.365	227.658	1.00	72.06	H
HETATM16280	H5	NAG C1002	139.059	187.612	228.301	1.00	72.06	H
HETATM16281	H61	NAG C1002	138.192	186.539	230.704	1.00	72.06	H
HETATM16282	H62	NAG C1002	137.340	186.144	229.435	1.00	72.06	H
HETATM16283	H81	NAG C1002	143.461	182.734	232.173	1.00	72.06	H
HETATM16284	H82	NAG C1002	142.365	181.651	231.759	1.00	72.06	H
HETATM16285	H83	NAG C1002	142.444	182.173	233.264	1.00	72.06	H
HETATM16286	HN2	NAG C1002	141.924	183.333	230.095	1.00	72.06	H
HETATM16287	HO4	NAG C1002	140.348	186.714	226.863	1.00	72.06	H
HETATM16288	HO6	NAG C1002	136.410	187.932	229.792	1.00	72.06	H
HETATM16289	C1	NAG C1003	138.691	182.284	228.637	1.00	70.95	C
HETATM16290	C2	NAG C1003	138.369	182.468	227.152	1.00	70.95	C
HETATM16291	C3	NAG C1003	138.314	181.112	226.455	1.00	70.95	C
HETATM16292	C4	NAG C1003	139.600	180.335	226.706	1.00	70.95	C
HETATM16293	C5	NAG C1003	139.880	180.239	228.204	1.00	70.95	C
HETATM16294	C6	NAG C1003	141.199	179.572	228.520	1.00	70.95	C
HETATM16295	C7	NAG C1003	136.870	184.011	225.959	1.00	70.95	C
HETATM16296	C8	NAG C1003	135.525	184.674	225.961	1.00	70.95	C
HETATM16297	N2	NAG C1003	137.116	183.186	226.982	1.00	70.95	N
HETATM16298	O3	NAG C1003	138.127	181.300	225.057	1.00	70.95	O
HETATM16299	O4	NAG C1003	139.489	179.025	226.161	1.00	70.95	O

HETATM16300	O5	NAG C1003	139.932	181.553	228.779	1.00	70.95	O
HETATM16301	O6	NAG C1003	141.973	180.353	229.420	1.00	70.95	O
HETATM16302	O7	NAG C1003	137.695	184.217	225.074	1.00	70.95	O
HETATM16303	H1	NAG C1003	137.975	181.759	229.045	1.00	70.95	H
HETATM16304	H2	NAG C1003	139.089	182.978	226.732	1.00	70.95	H
HETATM16305	H3	NAG C1003	137.564	180.601	226.812	1.00	70.95	H
HETATM16306	H4	NAG C1003	140.341	180.797	226.274	1.00	70.95	H
HETATM16307	H5	NAG C1003	139.161	179.735	228.629	1.00	70.95	H
HETATM16308	H61	NAG C1003	141.699	179.445	227.692	1.00	70.95	H
HETATM16309	H62	NAG C1003	141.024	178.700	228.922	1.00	70.95	H
HETATM16310	H81	NAG C1003	135.209	184.763	226.880	1.00	70.95	H
HETATM16311	H82	NAG C1003	134.892	184.135	225.450	1.00	70.95	H
HETATM16312	H83	NAG C1003	135.600	185.560	225.560	1.00	70.95	H
HETATM16313	HN2	NAG C1003	136.469	183.076	227.615	1.00	70.95	H
HETATM16314	HO3	NAG C1003	138.251	180.528	224.634	1.00	70.95	H
HETATM16315	HO4	NAG C1003	139.557	178.421	226.808	1.00	70.95	H
HETATM16316	HO6	NAG C1003	141.491	181.043	229.703	1.00	70.95	H
HETATM16317	C1	NAG C1004	142.608	175.888	198.016	1.00	71.19	C
HETATM16318	C2	NAG C1004	141.188	176.180	197.507	1.00	71.19	C
HETATM16319	C3	NAG C1004	140.926	175.442	196.195	1.00	71.19	C
HETATM16320	C4	NAG C1004	142.023	175.737	195.182	1.00	71.19	C
HETATM16321	C5	NAG C1004	143.381	175.417	195.790	1.00	71.19	C
HETATM16322	C6	NAG C1004	144.535	175.735	194.868	1.00	71.19	C
HETATM16323	C7	NAG C1004	139.856	176.587	199.533	1.00	71.19	C
HETATM16324	C8	NAG C1004	138.806	176.041	200.447	1.00	71.19	C
HETATM16325	N2	NAG C1004	140.190	175.811	198.498	1.00	71.19	N
HETATM16326	O3	NAG C1004	139.663	175.833	195.670	1.00	71.19	O
HETATM16327	O4	NAG C1004	141.833	174.945	194.015	1.00	71.19	O
HETATM16328	O5	NAG C1004	143.566	176.191	196.984	1.00	71.19	O
HETATM16329	O6	NAG C1004	144.619	174.798	193.803	1.00	71.19	O
HETATM16330	O7	NAG C1004	140.389	177.673	199.728	1.00	71.19	O
HETATM16331	H1	NAG C1004	142.679	174.946	198.260	1.00	71.19	H
HETATM16332	H2	NAG C1004	141.116	177.139	197.341	1.00	71.19	H
HETATM16333	H3	NAG C1004	140.909	174.482	196.372	1.00	71.19	H

HETATM16334	H4	NAG C1004	141.993	176.681	194.939	1.00	71.19	H
HETATM16335	H5	NAG C1004	143.406	174.468	196.017	1.00	71.19	H
HETATM16336	H61	NAG C1004	145.367	175.711	195.377	1.00	71.19	H
HETATM16337	H62	NAG C1004	144.411	176.627	194.495	1.00	71.19	H
HETATM16338	H81	NAG C1004	139.046	175.131	200.704	1.00	71.19	H
HETATM16339	H82	NAG C1004	137.947	176.034	199.984	1.00	71.19	H
HETATM16340	H83	NAG C1004	138.747	176.600	201.245	1.00	71.19	H
HETATM16341	HN2	NAG C1004	139.758	175.014	198.401	1.00	71.19	H
HETATM16342	HO3	NAG C1004	139.492	175.359	194.939	1.00	71.19	H
HETATM16343	HO4	NAG C1004	141.118	174.430	194.118	1.00	71.19	H
HETATM16344	HO6	NAG C1004	143.821	174.435	193.659	1.00	71.19	H
HETATM16345	C1	NAG C1005	146.687	163.429	198.629	1.00	83.29	C
HETATM16346	C2	NAG C1005	146.688	163.514	200.171	1.00	83.29	C
HETATM16347	C3	NAG C1005	146.005	162.285	200.790	1.00	83.29	C
HETATM16348	C4	NAG C1005	144.651	162.024	200.147	1.00	83.29	C
HETATM16349	C5	NAG C1005	144.824	161.911	198.644	1.00	83.29	C
HETATM16350	C6	NAG C1005	143.529	161.666	197.907	1.00	83.29	C
HETATM16351	C7	NAG C1005	148.353	163.859	201.950	1.00	83.29	C
HETATM16352	C8	NAG C1005	149.814	163.940	202.275	1.00	83.29	C
HETATM16353	N2	NAG C1005	148.049	163.637	200.666	1.00	83.29	N
HETATM16354	O3	NAG C1005	145.823	162.480	202.187	1.00	83.29	O
HETATM16355	O4	NAG C1005	144.088	160.821	200.655	1.00	83.29	O
HETATM16356	O5	NAG C1005	145.361	163.145	198.156	1.00	83.29	O
HETATM16357	O6	NAG C1005	143.760	161.058	196.643	1.00	83.29	O
HETATM16358	O7	NAG C1005	147.488	163.978	202.814	1.00	83.29	O
HETATM16359	H1	NAG C1005	147.292	162.714	198.352	1.00	83.29	H
HETATM16360	H2	NAG C1005	146.184	164.306	200.431	1.00	83.29	H
HETATM16361	H3	NAG C1005	146.572	161.504	200.648	1.00	83.29	H
HETATM16362	H4	NAG C1005	144.051	162.769	200.347	1.00	83.29	H
HETATM16363	H5	NAG C1005	145.448	161.187	198.447	1.00	83.29	H
HETATM16364	H61	NAG C1005	143.066	162.512	197.776	1.00	83.29	H
HETATM16365	H62	NAG C1005	142.964	161.074	198.435	1.00	83.29	H
HETATM16366	H81	NAG C1005	150.186	163.040	202.326	1.00	83.29	H
HETATM16367	H82	NAG C1005	149.931	164.389	203.132	1.00	83.29	H

HETATM16368	H83	NAG	C1005	150.273	164.438	201.573	1.00 83.29 H
HETATM16369	HN2	NAG	C1005	148.733	163.551	200.070	1.00 83.29 H
HETATM16370	HO3	NAG	C1005	146.462	162.053	202.632	1.00 83.29 H
HETATM16371	HO4	NAG	C1005	143.202	160.886	200.650	1.00 83.29 H
HETATM16372	HO6	NAG	C1005	144.323	160.380	196.746	1.00 83.29 H
HETATM16373	C1	NAG	C1006	131.922	184.028	203.778	1.00 57.60 C
HETATM16374	C2	NAG	C1006	130.846	185.091	203.753	1.00 57.60 C
HETATM16375	C3	NAG	C1006	130.671	185.603	202.335	1.00 57.60 C
HETATM16376	C4	NAG	C1006	131.996	186.150	201.824	1.00 57.60 C
HETATM16377	C5	NAG	C1006	133.114	185.115	201.975	1.00 57.60 C
HETATM16378	C6	NAG	C1006	134.481	185.701	201.710	1.00 57.60 C
HETATM16379	C7	NAG	C1006	129.377	184.425	205.597	1.00 57.60 C
HETATM16380	C8	NAG	C1006	128.020	183.922	205.986	1.00 57.60 C
HETATM16381	N2	NAG	C1006	129.587	184.598	204.288	1.00 57.60 N
HETATM16382	O3	NAG	C1006	129.672	186.616	202.308	1.00 57.60 O
HETATM16383	O4	NAG	C1006	131.876	186.510	200.453	1.00 57.60 O
HETATM16384	O5	NAG	C1006	133.154	184.586	203.312	1.00 57.60 O
HETATM16385	O6	NAG	C1006	135.433	184.700	201.380	1.00 57.60 O
HETATM16386	O7	NAG	C1006	130.246	184.660	206.430	1.00 57.60 O
HETATM16387	H1	NAG	C1006	131.660	183.290	203.195	1.00 57.60 H
HETATM16388	H2	NAG	C1006	131.147	185.836	204.307	1.00 57.60 H
HETATM16389	H3	NAG	C1006	130.388	184.865	201.764	1.00 57.60 H
HETATM16390	H4	NAG	C1006	132.228	186.946	202.339	1.00 57.60 H
HETATM16391	H5	NAG	C1006	132.958	184.383	201.349	1.00 57.60 H
HETATM16392	H61	NAG	C1006	134.782	186.168	202.512	1.00 57.60 H
HETATM16393	H62	NAG	C1006	134.421	186.341	200.976	1.00 57.60 H
HETATM16394	H81	NAG	C1006	127.961	182.965	205.810	1.00 57.60 H
HETATM16395	H82	NAG	C1006	127.338	184.393	205.470	1.00 57.60 H
HETATM16396	H83	NAG	C1006	127.877	184.087	206.937	1.00 57.60 H
HETATM16397	HN2	NAG	C1006	128.909	184.417	203.706	1.00 57.60 H
HETATM16398	HO3	NAG	C1006	128.926	186.279	201.964	1.00 57.60 H
HETATM16399	HO4	NAG	C1006	131.080	186.877	200.312	1.00 57.60 H
HETATM16400	HO6	NAG	C1006	136.214	185.088	201.212	1.00 57.60 H
HETATM16401	C1	NAG	C1007	158.048	171.895	166.433	1.00109.09 C

HETATM16402	C2	NAG C1007	157.540	170.439	166.554	1.00109.09	C
HETATM16403	C3	NAG C1007	156.414	170.127	165.556	1.00109.09	C
HETATM16404	C4	NAG C1007	155.401	171.259	165.438	1.00109.09	C
HETATM16405	C5	NAG C1007	156.094	172.605	165.315	1.00109.09	C
HETATM16406	C6	NAG C1007	155.130	173.771	165.319	1.00109.09	C
HETATM16407	C7	NAG C1007	158.546	168.188	166.513	1.00109.09	C
HETATM16408	C8	NAG C1007	159.799	167.400	166.262	1.00109.09	C
HETATM16409	N2	NAG C1007	158.647	169.514	166.366	1.00109.09	N
HETATM16410	O3	NAG C1007	155.760	168.982	166.094	1.00109.09	O
HETATM16411	O4	NAG C1007	154.580	171.068	164.290	1.00109.09	O
HETATM16412	O5	NAG C1007	156.960	172.782	166.438	1.00109.09	O
HETATM16413	O6	NAG C1007	155.725	174.940	165.866	1.00109.09	O
HETATM16414	O7	NAG C1007	157.490	167.647	166.831	1.00109.09	O
HETATM16415	H1	NAG C1007	158.550	171.999	165.603	1.00109.09	H
HETATM16416	H2	NAG C1007	157.152	170.311	167.440	1.00109.09	H
HETATM16417	H3	NAG C1007	156.800	169.925	164.685	1.00109.09	H
HETATM16418	H4	NAG C1007	154.841	171.269	166.235	1.00109.09	H
HETATM16419	H5	NAG C1007	156.620	172.622	164.493	1.00109.09	H
HETATM16420	H61	NAG C1007	154.345	173.534	165.851	1.00109.09	H
HETATM16421	H62	NAG C1007	154.842	173.954	164.406	1.00109.09	H
HETATM16422	H81	NAG C1007	160.005	167.415	165.309	1.00109.09	H
HETATM16423	H82	NAG C1007	159.667	166.477	166.552	1.00109.09	H
HETATM16424	H83	NAG C1007	160.539	167.799	166.757	1.00109.09	H
HETATM16425	HN2	NAG C1007	159.456	169.857	166.125	1.00109.09	H
HETATM16426	HO4	NAG C1007	154.967	170.490	163.740	1.00109.09	H
HETATM16427	HO6	NAG C1007	155.152	175.319	166.429	1.00109.09	H
HETATM16428	C1	NAG C1008	154.756	168.309	165.298	1.00109.31	C
HETATM16429	C2	NAG C1008	153.385	168.592	165.934	1.00109.31	C
HETATM16430	C3	NAG C1008	152.286	167.914	165.124	1.00109.31	C
HETATM16431	C4	NAG C1008	152.377	168.326	163.661	1.00109.31	C
HETATM16432	C5	NAG C1008	153.778	168.045	163.128	1.00109.31	C
HETATM16433	C6	NAG C1008	153.974	168.498	161.700	1.00109.31	C
HETATM16434	C7	NAG C1008	153.633	168.938	168.359	1.00109.31	C
HETATM16435	C8	NAG C1008	153.529	168.307	169.715	1.00109.31	C

HETATM16436	N2	NAG C1008	153.344	168.147	167.319	1.00109.31	N
HETATM16437	O3	NAG C1008	151.014	168.268	165.655	1.00109.31	O
HETATM16438	O4	NAG C1008	151.422	167.601	162.894	1.00109.31	O
HETATM16439	O5	NAG C1008	154.747	168.742	163.923	1.00109.31	O
HETATM16440	O6	NAG C1008	154.056	167.392	160.812	1.00109.31	O
HETATM16441	O7	NAG C1008	153.963	170.110	168.214	1.00109.31	O
HETATM16442	H1	NAG C1008	154.920	167.350	165.327	1.00109.31	H
HETATM16443	H2	NAG C1008	153.223	169.552	165.903	1.00109.31	H
HETATM16444	H3	NAG C1008	152.396	166.947	165.187	1.00109.31	H
HETATM16445	H4	NAG C1008	152.191	169.281	163.588	1.00109.31	H
HETATM16446	H5	NAG C1008	153.951	167.087	163.183	1.00109.31	H
HETATM16447	H61	NAG C1008	154.800	169.013	161.644	1.00109.31	H
HETATM16448	H62	NAG C1008	153.223	169.063	161.441	1.00109.31	H
HETATM16449	H81	NAG C1008	154.006	167.456	169.721	1.00109.31	H
HETATM16450	H82	NAG C1008	152.589	168.157	169.932	1.00109.31	H
HETATM16451	H83	NAG C1008	153.922	168.903	170.379	1.00109.31	H
HETATM16452	HN2	NAG C1008	153.102	167.285	167.487	1.00109.31	H
HETATM16453	HO3	NAG C1008	150.683	167.578	166.106	1.00109.31	H
HETATM16454	HO4	NAG C1008	150.776	167.309	163.428	1.00109.31	H
HETATM16455	HO6	NAG C1008	154.848	166.999	160.898	1.00109.31	H
HETATM16456	C1	NAG C1009	162.719	180.064	155.647	1.00108.24	C
HETATM16457	C2	NAG C1009	162.297	178.611	155.465	1.00108.24	C
HETATM16458	C3	NAG C1009	161.958	178.349	154.005	1.00108.24	C
HETATM16459	C4	NAG C1009	160.923	179.354	153.515	1.00108.24	C
HETATM16460	C5	NAG C1009	161.383	180.779	153.809	1.00108.24	C
HETATM16461	C6	NAG C1009	160.348	181.824	153.463	1.00108.24	C
HETATM16462	C7	NAG C1009	163.418	177.239	157.167	1.00108.24	C
HETATM16463	C8	NAG C1009	164.574	176.332	157.464	1.00108.24	C
HETATM16464	N2	NAG C1009	163.345	177.709	155.917	1.00108.24	N
HETATM16465	O3	NAG C1009	161.468	177.022	153.858	1.00108.24	O
HETATM16466	O4	NAG C1009	160.721	179.210	152.113	1.00108.24	O
HETATM16467	O5	NAG C1009	161.671	180.925	155.208	1.00108.24	O
HETATM16468	O6	NAG C1009	160.465	182.977	154.287	1.00108.24	O
HETATM16469	O7	NAG C1009	162.589	177.536	158.023	1.00108.24	O

HETATM16470	H1	NAG C1009	163.528	180.224	155.125	1.00108.24	H
HETATM16471	H2	NAG C1009	161.489	178.455	155.990	1.00108.24	H
HETATM16472	H3	NAG C1009	162.768	178.451	153.472	1.00108.24	H
HETATM16473	H4	NAG C1009	160.082	179.188	153.980	1.00108.24	H
HETATM16474	H5	NAG C1009	162.195	180.961	153.300	1.00108.24	H
HETATM16475	H61	NAG C1009	159.459	181.439	153.571	1.00108.24	H
HETATM16476	H62	NAG C1009	160.467	182.084	152.532	1.00108.24	H
HETATM16477	H81	NAG C1009	165.392	176.859	157.528	1.00108.24	H
HETATM16478	H82	NAG C1009	164.671	175.674	156.750	1.00108.24	H
HETATM16479	H83	NAG C1009	164.418	175.874	158.312	1.00108.24	H
HETATM16480	HN2	NAG C1009	163.991	177.464	155.322	1.00108.24	H
HETATM16481	HO3	NAG C1009	161.432	176.813	152.995	1.00108.24	H
HETATM16482	HO4	NAG C1009	160.028	179.705	151.861	1.00108.24	H
HETATM16483	HO6	NAG C1009	161.100	182.848	154.894	1.00108.24	H
HETATM16484	C1	NAG C1010	161.638	214.754	210.383	1.00 52.70	C
HETATM16485	C2	NAG C1010	161.420	215.804	211.470	1.00 52.70	C
HETATM16486	C3	NAG C1010	159.993	216.345	211.390	1.00 52.70	C
HETATM16487	C4	NAG C1010	159.680	216.824	209.979	1.00 52.70	C
HETATM16488	C5	NAG C1010	160.021	215.748	208.952	1.00 52.70	C
HETATM16489	C6	NAG C1010	159.874	216.222	207.525	1.00 52.70	C
HETATM16490	C7	NAG C1010	161.750	215.998	213.897	1.00 52.70	C
HETATM16491	C8	NAG C1010	162.048	215.263	215.171	1.00 52.70	C
HETATM16492	N2	NAG C1010	161.693	215.253	212.787	1.00 52.70	N
HETATM16493	O3	NAG C1010	159.821	217.428	212.296	1.00 52.70	O
HETATM16494	O4	NAG C1010	158.295	217.135	209.878	1.00 52.70	O
HETATM16495	O5	NAG C1010	161.383	215.330	209.111	1.00 52.70	O
HETATM16496	O6	NAG C1010	159.851	215.130	206.616	1.00 52.70	O
HETATM16497	O7	NAG C1010	161.557	217.210	213.876	1.00 52.70	O
HETATM16498	H1	NAG C1010	161.028	214.007	210.523	1.00 52.70	H
HETATM16499	H2	NAG C1010	162.030	216.547	211.305	1.00 52.70	H
HETATM16500	H3	NAG C1010	159.369	215.634	211.624	1.00 52.70	H
HETATM16501	H4	NAG C1010	160.201	217.628	209.795	1.00 52.70	H
HETATM16502	H5	NAG C1010	159.434	214.982	209.097	1.00 52.70	H
HETATM16503	H61	NAG C1010	160.622	216.809	207.305	1.00 52.70	H

HETATM16504	H62	NAG C1010	159.044	216.727	207.443	1.00 52.70	H
HETATM16505	H81	NAG C1010	161.665	214.367	215.130	1.00 52.70	H
HETATM16506	H82	NAG C1010	161.659	215.749	215.921	1.00 52.70	H
HETATM16507	H83	NAG C1010	163.013	215.202	215.291	1.00 52.70	H
HETATM16508	HN2	NAG C1010	161.849	214.358	212.857	1.00 52.70	H
HETATM16509	HO3	NAG C1010	159.381	217.145	213.014	1.00 52.70	H
HETATM16510	HO4	NAG C1010	158.171	217.725	209.226	1.00 52.70	H
HETATM16511	HO6	NAG C1010	160.291	215.351	205.877	1.00 52.70	H
HETATM16512	C1	NAG C1011	155.214	208.367	209.717	1.00 52.66	C
HETATM16513	C2	NAG C1011	154.011	209.247	209.434	1.00 52.66	C
HETATM16514	C3	NAG C1011	153.166	208.605	208.346	1.00 52.66	C
HETATM16515	C4	NAG C1011	154.023	208.336	207.116	1.00 52.66	C
HETATM16516	C5	NAG C1011	155.292	207.569	207.492	1.00 52.66	C
HETATM16517	C6	NAG C1011	156.258	207.420	206.342	1.00 52.66	C
HETATM16518	C7	NAG C1011	153.408	210.511	211.451	1.00 52.66	C
HETATM16519	C8	NAG C1011	152.515	210.574	212.655	1.00 52.66	C
HETATM16520	N2	NAG C1011	153.226	209.463	210.638	1.00 52.66	N
HETATM16521	O3	NAG C1011	152.071	209.453	208.023	1.00 52.66	O
HETATM16522	O4	NAG C1011	153.286	207.575	206.166	1.00 52.66	O
HETATM16523	O5	NAG C1011	156.000	208.248	208.542	1.00 52.66	O
HETATM16524	O6	NAG C1011	157.268	206.464	206.634	1.00 52.66	O
HETATM16525	O7	NAG C1011	154.258	211.368	211.227	1.00 52.66	O
HETATM16526	H1	NAG C1011	154.910	207.482	209.993	1.00 52.66	H
HETATM16527	H2	NAG C1011	154.327	210.104	209.091	1.00 52.66	H
HETATM16528	H3	NAG C1011	152.824	207.754	208.675	1.00 52.66	H
HETATM16529	H4	NAG C1011	154.275	209.188	206.717	1.00 52.66	H
HETATM16530	H5	NAG C1011	155.043	206.680	207.807	1.00 52.66	H
HETATM16531	H61	NAG C1011	156.676	208.283	206.164	1.00 52.66	H
HETATM16532	H62	NAG C1011	155.766	207.131	205.550	1.00 52.66	H
HETATM16533	H81	NAG C1011	152.653	209.783	213.208	1.00 52.66	H
HETATM16534	H82	NAG C1011	151.581	210.617	212.379	1.00 52.66	H
HETATM16535	H83	NAG C1011	152.731	211.370	213.177	1.00 52.66	H
HETATM16536	HN2	NAG C1011	152.584	208.853	210.853	1.00 52.66	H
HETATM16537	HO3	NAG C1011	151.353	209.172	208.465	1.00 52.66	H

HETATM16538	HO4	NAG C1011	152.417	207.670	206.323	1.00 52.66	H
HETATM16539	HO6	NAG C1011	157.181	206.190	207.474	1.00 52.66	H
HETATM16540	C1	NAG C1012	146.038	187.587	185.159	1.00144.23	C
HETATM16541	C2	NAG C1012	144.627	187.004	185.194	1.00144.23	C
HETATM16542	C3	NAG C1012	143.603	188.101	184.918	1.00144.23	C
HETATM16543	C4	NAG C1012	143.820	189.283	185.855	1.00144.23	C
HETATM16544	C5	NAG C1012	145.278	189.740	185.826	1.00144.23	C
HETATM16545	C6	NAG C1012	145.580	190.827	186.833	1.00144.23	C
HETATM16546	C7	NAG C1012	143.503	185.027	184.258	1.00144.23	C
HETATM16547	C8	NAG C1012	143.533	183.980	183.185	1.00144.23	C
HETATM16548	N2	NAG C1012	144.493	185.924	184.228	1.00144.23	N
HETATM16549	O3	NAG C1012	142.287	187.588	185.090	1.00144.23	O
HETATM16550	O4	NAG C1012	142.987	190.368	185.462	1.00144.23	O
HETATM16551	O5	NAG C1012	146.147	188.637	186.127	1.00144.23	O
HETATM16552	O6	NAG C1012	145.366	190.381	188.165	1.00144.23	O
HETATM16553	O7	NAG C1012	142.618	185.063	185.110	1.00144.23	O
HETATM16554	H1	NAG C1012	146.221	187.943	184.268	1.00144.23	H
HETATM16555	H2	NAG C1012	144.459	186.646	186.086	1.00144.23	H
HETATM16556	H3	NAG C1012	143.708	188.407	183.998	1.00144.23	H
HETATM16557	H4	NAG C1012	143.589	189.014	186.765	1.00144.23	H
HETATM16558	H5	NAG C1012	145.487	190.073	184.932	1.00144.23	H
HETATM16559	H61	NAG C1012	144.996	191.590	186.660	1.00144.23	H
HETATM16560	H62	NAG C1012	146.509	191.111	186.733	1.00144.23	H
HETATM16561	H81	NAG C1012	144.370	183.485	183.248	1.00144.23	H
HETATM16562	H82	NAG C1012	143.472	184.403	182.309	1.00144.23	H
HETATM16563	H83	NAG C1012	142.783	183.367	183.302	1.00144.23	H
HETATM16564	HN2	NAG C1012	145.127	185.843	183.578	1.00144.23	H
HETATM16565	HO3	NAG C1012	141.721	188.057	184.593	1.00144.23	H
HETATM16566	HO4	NAG C1012	142.794	190.295	184.599	1.00144.23	H
HETATM16567	HO6	NAG C1012	145.313	191.085	188.704	1.00144.23	H
HETATM16568	C1	NAG C1013	164.596	199.980	156.850	1.00128.68	C
HETATM16569	C2	NAG C1013	163.888	201.124	157.599	1.00128.68	C
HETATM16570	C3	NAG C1013	163.445	202.217	156.624	1.00128.68	C
HETATM16571	C4	NAG C1013	164.608	202.672	155.754	1.00128.68	C

HETATM16572	C5	NAG C1013	165.227	201.472	155.052	1.00128.68	C
HETATM16573	C6	NAG C1013	166.465	201.822	154.258	1.00128.68	C
HETATM16574	C7	NAG C1013	162.841	200.082	159.569	1.00128.68	C
HETATM16575	C8	NAG C1013	161.554	199.621	160.184	1.00128.68	C
HETATM16576	N2	NAG C1013	162.745	200.624	158.349	1.00128.68	N
HETATM16577	O3	NAG C1013	162.942	203.322	157.364	1.00128.68	O
HETATM16578	O4	NAG C1013	164.155	203.604	154.780	1.00128.68	O
HETATM16579	O5	NAG C1013	165.640	200.512	156.031	1.00128.68	O
HETATM16580	O6	NAG C1013	166.243	202.924	153.389	1.00128.68	O
HETATM16581	O7	NAG C1013	163.917	199.962	160.146	1.00128.68	O
HETATM16582	H1	NAG C1013	163.947	199.519	156.287	1.00128.68	H
HETATM16583	H2	NAG C1013	164.524	201.519	158.225	1.00128.68	H
HETATM16584	H3	NAG C1013	162.736	201.870	156.050	1.00128.68	H
HETATM16585	H4	NAG C1013	165.283	203.094	156.318	1.00128.68	H
HETATM16586	H5	NAG C1013	164.567	201.071	154.455	1.00128.68	H
HETATM16587	H61	NAG C1013	166.731	201.046	153.729	1.00128.68	H
HETATM16588	H62	NAG C1013	167.184	202.046	154.880	1.00128.68	H
HETATM16589	H81	NAG C1013	161.167	198.912	159.637	1.00128.68	H
HETATM16590	H82	NAG C1013	160.931	200.371	160.234	1.00128.68	H
HETATM16591	H83	NAG C1013	161.730	199.278	161.081	1.00128.68	H
HETATM16592	HN2	NAG C1013	161.919	200.687	157.970	1.00128.68	H
HETATM16593	HO3	NAG C1013	163.619	203.744	157.755	1.00128.68	H
HETATM16594	HO4	NAG C1013	163.683	203.178	154.160	1.00128.68	H
HETATM16595	HO6	NAG C1013	167.005	203.127	152.981	1.00128.68	H
HETATM16596	C1	NAG C1014	192.376	171.175	155.498	1.00153.06	C
HETATM16597	C2	NAG C1014	191.413	170.009	155.316	1.00153.06	C
HETATM16598	C3	NAG C1014	190.962	169.939	153.865	1.00153.06	C
HETATM16599	C4	NAG C1014	190.383	171.280	153.433	1.00153.06	C
HETATM16600	C5	NAG C1014	191.358	172.419	153.752	1.00153.06	C
HETATM16601	C6	NAG C1014	190.782	173.786	153.475	1.00153.06	C
HETATM16602	C7	NAG C1014	191.769	168.151	156.897	1.00153.06	C
HETATM16603	C8	NAG C1014	192.492	166.863	157.147	1.00153.06	C
HETATM16604	N2	NAG C1014	192.018	168.747	155.726	1.00153.06	N
HETATM16605	O3	NAG C1014	189.986	168.914	153.713	1.00153.06	O

HETATM16606	O4	NAG C1014	190.120	171.272	152.034	1.00153.06		O
HETATM16607	O5	NAG C1014	191.724	172.398	155.142	1.00153.06		O
HETATM16608	O6	NAG C1014	190.845	174.624	154.622	1.00153.06		O
HETATM16609	O7	NAG C1014	190.989	168.635	157.716	1.00153.06		O
HETATM16610	H1	NAG C1014	193.163	171.034	154.933	1.00153.06		H
HETATM16611	H2	NAG C1014	190.620	170.173	155.855	1.00153.06		H
HETATM16612	H3	NAG C1014	191.731	169.728	153.307	1.00153.06		H
HETATM16613	H4	NAG C1014	189.546	171.438	153.913	1.00153.06		H
HETATM16614	H5	NAG C1014	192.161	172.299	153.209	1.00153.06		H
HETATM16615	H61	NAG C1014	189.850	173.685	153.198	1.00153.06		H
HETATM16616	H62	NAG C1014	191.283	174.201	152.744	1.00153.06		H
HETATM16617	H81	NAG C1014	193.450	167.006	157.032	1.00153.06		H
HETATM16618	H82	NAG C1014	192.183	166.174	156.524	1.00153.06		H
HETATM16619	H83	NAG C1014	192.328	166.573	158.064	1.00153.06		H
HETATM16620	HN2	NAG C1014	192.613	168.353	155.159	1.00153.06		H
HETATM16621	HO3	NAG C1014	190.295	168.147	154.035	1.00153.06		H
HETATM16622	HO4	NAG C1014	189.294	170.975	151.892	1.00153.06		H
HETATM16623	HO6	NAG C1014	190.553	175.432	154.397	1.00153.06		H
HETATM16624	C1	NAG C1015	142.971	183.881	192.814	1.00	83.81	C
HETATM16625	C2	NAG C1015	141.818	182.933	193.235	1.00	83.81	C
HETATM16626	C3	NAG C1015	140.588	183.122	192.329	1.00	83.81	C
HETATM16627	C4	NAG C1015	140.216	184.591	192.181	1.00	83.81	C
HETATM16628	C5	NAG C1015	141.421	185.376	191.696	1.00	83.81	C
HETATM16629	C6	NAG C1015	141.156	186.860	191.573	1.00	83.81	C
HETATM16630	C7	NAG C1015	141.504	180.495	193.465	1.00	83.81	C
HETATM16631	C8	NAG C1015	142.158	179.155	193.332	1.00	83.81	C
HETATM16632	N2	NAG C1015	142.275	181.553	193.186	1.00	83.81	N
HETATM16633	O3	NAG C1015	139.472	182.423	192.868	1.00	83.81	O
HETATM16634	O4	NAG C1015	139.154	184.734	191.246	1.00	83.81	O
HETATM16635	O5	NAG C1015	142.472	185.221	192.653	1.00	83.81	O
HETATM16636	O6	NAG C1015	142.347	187.613	191.758	1.00	83.81	O
HETATM16637	O7	NAG C1015	140.331	180.613	193.805	1.00	83.81	O
HETATM16638	H1	NAG C1015	143.351	183.572	191.969	1.00	83.81	H
HETATM16639	H2	NAG C1015	141.557	183.151	194.149	1.00	83.81	H

HETATM16640 H3 NAG C1015 140.788 182.760 191.445 1.00 83.81 H
HETATM16641 H4 NAG C1015 139.927 184.935 193.048 1.00 83.81 H
HETATM16642 H5 NAG C1015 141.713 185.025 190.834 1.00 83.81 H
HETATM16643 H61 NAG C1015 140.508 187.131 192.249 1.00 83.81 H
HETATM16644 H62 NAG C1015 140.796 187.053 190.691 1.00 83.81 H
HETATM16645 H81 NAG C1015 142.743 179.160 192.552 1.00 83.81 H
HETATM16646 H82 NAG C1015 141.472 178.474 193.208 1.00 83.81 H
HETATM16647 H83 NAG C1015 142.679 178.958 194.132 1.00 83.81 H
HETATM16648 HN2 NAG C1015 143.136 181.400 192.928 1.00 83.81 H
HETATM16649 HO3 NAG C1015 139.327 181.684 192.397 1.00 83.81 H
HETATM16650 HO4 NAG C1015 139.449 185.135 190.510 1.00 83.81 H
HETATM16651 HO6 NAG C1015 142.230 188.213 192.401 1.00 83.81 H
HETATM16652 C1 PFE C1101 210.842 181.767 255.910 1.00 72.49 C
HETATM16653 C13 PFE C1101 209.089 186.294 257.567 1.00 72.49 C
HETATM16654 C18 PFE C1101 207.552 180.115 255.899 1.00 72.49 C
HETATM16655 C2 PFE C1101 209.573 181.384 256.662 1.00 72.49 C
HETATM16656 C21 PFE C1101 205.644 179.232 254.441 1.00 72.49 C
HETATM16657 C22 PFE C1101 204.950 179.589 253.292 1.00 72.49 C
HETATM16658 C23 PFE C1101 203.824 178.884 252.909 1.00 72.49 C
HETATM16659 C24 PFE C1101 203.372 177.814 253.670 1.00 72.49 C
HETATM16660 C25 PFE C1101 204.066 177.458 254.817 1.00 72.49 C
HETATM16661 C26 PFE C1101 205.192 178.159 255.198 1.00 72.49 C
HETATM16662 C28 PFE C1101 201.417 177.102 252.288 1.00 72.49 C
HETATM16663 C3 PFE C1101 209.071 182.513 257.544 1.00 72.49 C
HETATM16664 C30 PFE C1101 200.245 176.202 252.390 1.00 72.49 C
HETATM16665 C31 PFE C1101 199.255 176.144 251.463 1.00 72.49 C
HETATM16666 C33 PFE C1101 199.007 174.683 253.325 1.00 72.49 C
HETATM16667 C4 PFE C1101 209.322 183.835 257.201 1.00 72.49 C
HETATM16668 C5 PFE C1101 208.831 184.880 257.974 1.00 72.49 C
HETATM16669 C6 PFE C1101 208.078 184.611 259.111 1.00 72.49 C
HETATM16670 C7 PFE C1101 207.826 183.292 259.465 1.00 72.49 C
HETATM16671 C8 PFE C1101 208.327 182.255 258.688 1.00 72.49 C
HETATM16672 C9 PFE C1101 206.992 182.988 260.666 1.00 72.49 C
HETATM16673 F10 PFE C1101 206.816 184.046 261.449 1.00 72.49 F

HETATM16674 F11 PFE C1101 205.774 182.562 260.347 1.00 72.49 F
HETATM16675 F12 PFE C1101 207.523 182.043 261.435 1.00 72.49 F
HETATM16676 F14 PFE C1101 209.578 187.031 258.558 1.00 72.49 F
HETATM16677 F15 PFE C1101 209.962 186.388 256.570 1.00 72.49 F
HETATM16678 F16 PFE C1101 207.990 186.915 257.151 1.00 72.49 F
HETATM16679 N17 PFE C1101 208.554 180.979 255.689 1.00 72.49 N
HETATM16680 N20 PFE C1101 206.797 179.985 254.781 1.00 72.49 N
HETATM16681 N27 PFE C1101 202.221 177.047 253.372 1.00 72.49 N
HETATM16682 N34 PFE C1101 200.103 175.356 253.475 1.00 72.49 N
HETATM16683 O29 PFE C1101 201.599 177.813 251.304 1.00 72.49 O
HETATM16684 S19 PFE C1101 207.318 179.330 257.369 1.00 72.49 S
HETATM16685 S32 PFE C1101 198.085 174.999 251.922 1.00 72.49 S
HETATM16686 HC2 PFE C1101 209.842 180.539 257.292 1.00 72.49 H
HETATM16687 HC4 PFE C1101 209.912 184.061 256.314 1.00 72.49 H
HETATM16688 HC6 PFE C1101 207.679 185.423 259.716 1.00 72.49 H
HETATM16689 HC8 PFE C1101 208.137 181.222 258.975 1.00 72.49 H
HETATM16690 HC1A PFE C1101 211.585 182.186 256.587 1.00 72.49 H
HETATM16691 HC1B PFE C1101 211.298 180.890 255.453 1.00 72.49 H
HETATM16692 HC1C PFE C1101 210.679 182.482 255.107 1.00 72.49 H
HETATM16693 HC22 PFE C1101 205.285 180.424 252.680 1.00 72.49 H
HETATM16694 HC23 PFE C1101 203.322 179.203 251.996 1.00 72.49 H
HETATM16695 HC25 PFE C1101 203.732 176.628 255.438 1.00 72.49 H
HETATM16696 HC26 PFE C1101 205.717 177.867 256.106 1.00 72.49 H
HETATM16697 HC31 PFE C1101 199.175 176.732 250.551 1.00 72.49 H
HETATM16698 HC33 PFE C1101 198.683 173.951 254.063 1.00 72.49 H
HETATM16699 HN17 PFE C1101 208.669 181.429 254.787 1.00 72.49 H
HETATM16700 HN20 PFE C1101 207.065 180.531 253.969 1.00 72.49 H
HETATM16701 HN27 PFE C1101 201.993 176.369 254.091 1.00 72.49 H
TER
END

TABLE 1B

```
CRYST1  312.480  312.480  312.480  90.00  90.00  90.00 P 1
ATOM      1  N   THR A  86     144.592 126.343 163.957  1.00 68.89           N
ATOM      2  CA  THR A  86     145.954 126.837 164.110  1.00 68.89           C
ATOM      3  C   THR A  86     146.945 125.945 163.375  1.00 68.89           C
ATOM      4  O   THR A  86     147.584 125.084 163.980  1.00 68.89           O
ATOM      5  CB  THR A  86     146.365 126.923 165.589  1.00 68.89           C
ATOM      6  OG1 THR A  86     146.346 125.613 166.168  1.00 68.89           O
ATOM      7  CG2 THR A  86     145.410 127.821 166.354  1.00 68.89           C
ATOM      8  N   THR A  87     147.069 126.154 162.066  1.00 71.95           N
ATOM      9  CA  THR A  87     148.010 125.404 161.246  1.00 71.95           C
ATOM     10  C   THR A  87     149.213 126.220 160.807  1.00 71.95           C
ATOM     11  O   THR A  87     150.299 125.661 160.656  1.00 71.95           O
ATOM     12  CB  THR A  87     147.313 124.847 160.000  1.00 71.95           C
ATOM     13  OG1 THR A  87     146.238 123.987 160.397  1.00 71.95           O
ATOM     14  CG2 THR A  87     148.297 124.058 159.154  1.00 71.95           C
ATOM     15  N   LYS A  88     149.044 127.524 160.597  1.00 66.47           N
ATOM     16  CA  LYS A  88     150.156 128.415 160.312  1.00 66.47           C
ATOM     17  C   LYS A  88     150.352 129.466 161.392  1.00 66.47           C
ATOM     18  O   LYS A  88     151.310 130.243 161.314  1.00 66.47           O
ATOM     19  CB  LYS A  88     149.963 129.100 158.955  1.00 66.47           C
ATOM     20  CG  LYS A  88     148.560 129.616 158.711  1.00 66.47           C
ATOM     21  CD  LYS A  88     148.444 130.246 157.334  1.00 66.47           C
ATOM     22  CE  LYS A  88     149.471 131.350 157.149  1.00 66.47           C
ATOM     23  NZ  LYS A  88     149.309 132.046 155.845  1.00 66.47           N
ATOM     24  N   TYR A  89     149.475 129.514 162.395  1.00 60.35           N
ATOM     25  CA  TYR A  89     149.607 130.407 163.543  1.00 60.35           C
ATOM     26  C   TYR A  89     149.682 129.558 164.806  1.00 60.35           C
ATOM     27  O   TYR A  89     148.719 129.490 165.582  1.00 60.35           O
ATOM     28  CB  TYR A  89     148.446 131.393 163.626  1.00 60.35           C
ATOM     29  CG  TYR A  89     148.308 132.291 162.422  1.00 60.35           C
ATOM     30  CD1 TYR A  89     149.293 133.213 162.104  1.00 60.35           C
ATOM     31  CD2 TYR A  89     147.188 132.223 161.610  1.00 60.35           C
```

```
ATOM   32  CE1 TYR A  89     149.168 134.038 161.007  1.00 60.35           C
ATOM   33  CE2 TYR A  89     147.054 133.043 160.511  1.00 60.35           C
ATOM   34  CZ  TYR A  89     148.046 133.949 160.214  1.00 60.35           C
ATOM   35  OH  TYR A  89     147.914 134.768 159.119  1.00 60.35           O
ATOM   36  N   PRO A  90     150.811 128.894 165.041  1.00 51.95           N
ATOM   37  CA  PRO A  90     150.945 128.050 166.230  1.00 51.95           C
ATOM   38  C   PRO A  90     151.468 128.830 167.424  1.00 51.95           C
ATOM   39  O   PRO A  90     152.338 129.694 167.306  1.00 51.95           O
ATOM   40  CB  PRO A  90     151.960 126.996 165.772  1.00 51.95           C
ATOM   41  CG  PRO A  90     152.836 127.740 164.825  1.00 51.95           C
ATOM   42  CD  PRO A  90     151.994 128.809 164.170  1.00 51.95           C
ATOM   43  N   TYR A  91     150.914 128.517 168.593  1.00 47.85           N
ATOM   44  CA  TYR A  91     151.333 129.170 169.825  1.00 47.85           C
ATOM   45  C   TYR A  91     152.849 129.176 169.935  1.00 47.85           C
ATOM   46  O   TYR A  91     153.490 128.123 169.921  1.00 47.85           O
ATOM   47  CB  TYR A  91     150.721 128.459 171.031  1.00 47.85           C
ATOM   48  CG  TYR A  91     149.212 128.437 171.030  1.00 47.85           C
ATOM   49  CD1 TYR A  91     148.484 129.493 171.552  1.00 47.85           C
ATOM   50  CD2 TYR A  91     148.516 127.358 170.512  1.00 47.85           C
ATOM   51  CE1 TYR A  91     147.107 129.477 171.554  1.00 47.85           C
ATOM   52  CE2 TYR A  91     147.138 127.334 170.511  1.00 47.85           C
ATOM   53  CZ  TYR A  91     146.439 128.397 171.033  1.00 47.85           C
ATOM   54  OH  TYR A  91     145.065 128.379 171.035  1.00 47.85           O
ATOM   55  N   ARG A  92     153.421 130.370 170.047  1.00 47.17           N
ATOM   56  CA  ARG A  92     154.865 130.529 170.079  1.00 47.17           C
ATOM   57  C   ARG A  92     155.219 131.613 171.082  1.00 47.17           C
ATOM   58  O   ARG A  92     154.397 132.467 171.414  1.00 47.17           O
ATOM   59  CB  ARG A  92     155.408 130.878 168.693  1.00 47.17           C
ATOM   60  CG  ARG A  92     154.794 132.128 168.104  1.00 47.17           C
ATOM   61  CD  ARG A  92     154.761 132.066 166.592  1.00 47.17           C
ATOM   62  NE  ARG A  92     154.490 133.373 166.006  1.00 47.17           N
ATOM   63  CZ  ARG A  92     153.274 133.830 165.737  1.00 47.17           C
ATOM   64  NH1 ARG A  92     152.213 133.085 166.000  1.00 47.17           N
ATOM   65  NH2 ARG A  92     153.119 135.033 165.205  1.00 47.17           N
```

```
ATOM   66  N   VAL A  93     156.461 131.575 171.557  1.00 44.30           N
ATOM   67  CA  VAL A  93     156.954 132.509 172.570  1.00 44.30           C
ATOM   68  C   VAL A  93     158.297 133.035 172.077  1.00 44.30           C
ATOM   69  O   VAL A  93     159.344 132.429 172.322  1.00 44.30           O
ATOM   70  CB  VAL A  93     157.101 131.857 173.945  1.00 44.30           C
ATOM   71  CG1 VAL A  93     157.936 132.736 174.849  1.00 44.30           C
ATOM   72  CG2 VAL A  93     155.746 131.599 174.552  1.00 44.30           C
ATOM   73  N   CYS A  94     158.284 134.182 171.403  1.00 50.21           N
ATOM   74  CA  CYS A  94     159.519 134.771 170.892  1.00 50.21           C
ATOM   75  C   CYS A  94     159.619 136.242 171.275  1.00 50.21           C
ATOM   76  O   CYS A  94     159.094 137.119 170.584  1.00 50.21           O
ATOM   77  CB  CYS A  94     159.641 134.575 169.389  1.00 50.21           C
ATOM   78  SG  CYS A  94     158.347 135.241 168.349  1.00 50.21           S
ATOM   79  N   SER A  95     160.308 136.488 172.386  1.00 49.61           N
ATOM   80  CA  SER A  95     160.818 137.804 172.747  1.00 49.61           C
ATOM   81  C   SER A  95     162.274 137.778 173.175  1.00 49.61           C
ATOM   82  O   SER A  95     162.874 138.848 173.313  1.00 49.61           O
ATOM   83  CB  SER A  95     159.980 138.418 173.873  1.00 49.61           C
ATOM   84  OG  SER A  95     160.018 137.606 175.032  1.00 49.61           O
ATOM   85  N   MET A  96     162.867 136.605 173.380  1.00 50.74           N
ATOM   86  CA  MET A  96     164.252 136.474 173.804  1.00 50.74           C
ATOM   87  C   MET A  96     165.150 136.312 172.586  1.00 50.74           C
ATOM   88  O   MET A  96     164.892 135.463 171.730  1.00 50.74           O
ATOM   89  CB  MET A  96     164.404 135.270 174.732  1.00 50.74           C
ATOM   90  CG  MET A  96     163.610 134.059 174.275  1.00 50.74           C
ATOM   91  SD  MET A  96     163.505 132.749 175.505  1.00 50.74           S
ATOM   92  CE  MET A  96     162.967 133.683 176.928  1.00 50.74           C
ATOM   93  N   ALA A  97     166.207 137.124 172.511  1.00 45.76           N
ATOM   94  CA  ALA A  97     167.110 137.068 171.363  1.00 45.76           C
ATOM   95  C   ALA A  97     168.489 137.550 171.808  1.00 45.76           C
ATOM   96  O   ALA A  97     168.718 138.756 171.913  1.00 45.76           O
ATOM   97  CB  ALA A  97     166.578 137.897 170.209  1.00 45.76           C
ATOM   98  N   GLN A  98     169.391 136.603 172.050  1.00 46.20           N
ATOM   99  CA  GLN A  98     170.795 136.908 172.287  1.00 46.20           C
```

ATOM 100 C GLN A 98 171.471 137.155 170.947 1.00 46.20 C
ATOM 101 O GLN A 98 170.791 137.357 169.938 1.00 46.20 O
ATOM 102 CB GLN A 98 171.486 135.778 173.047 1.00 46.20 C
ATOM 103 CG GLN A 98 170.589 135.054 174.022 1.00 46.20 C
ATOM 104 CD GLN A 98 170.227 135.906 175.214 1.00 46.20 C
ATOM 105 OE1 GLN A 98 171.063 136.629 175.750 1.00 46.20 O
ATOM 106 NE2 GLN A 98 168.975 135.825 175.639 1.00 46.20 N
ATOM 107 N GLY A 99 172.798 137.140 170.916 1.00 43.92 N
ATOM 108 CA GLY A 99 173.497 137.452 169.686 1.00 43.92 C
ATOM 109 C GLY A 99 173.456 136.307 168.695 1.00 43.92 C
ATOM 110 O GLY A 99 172.398 135.711 168.478 1.00 43.92 O
ATOM 111 N THR A 100 174.592 135.990 168.084 1.00 43.38 N
ATOM 112 CA THR A 100 174.767 135.023 167.008 1.00 43.38 C
ATOM 113 C THR A 100 174.416 135.612 165.644 1.00 43.38 C
ATOM 114 O THR A 100 174.591 134.927 164.637 1.00 43.38 O
ATOM 115 CB THR A 100 173.951 133.731 167.209 1.00 43.38 C
ATOM 116 OG1 THR A 100 172.556 134.027 167.108 1.00 43.38 O
ATOM 117 CG2 THR A 100 174.229 133.134 168.569 1.00 43.38 C
ATOM 118 N ASP A 101 173.915 136.845 165.570 1.00 43.41 N
ATOM 119 CA ASP A 101 173.867 137.588 164.317 1.00 43.41 C
ATOM 120 C ASP A 101 173.347 138.999 164.558 1.00 43.41 C
ATOM 121 O ASP A 101 172.503 139.210 165.432 1.00 43.41 O
ATOM 122 CB ASP A 101 173.014 136.854 163.286 1.00 43.41 C
ATOM 123 CG ASP A 101 171.676 136.459 163.829 1.00 43.41 C
ATOM 124 OD1 ASP A 101 171.361 136.869 164.962 1.00 43.41 O
ATOM 125 OD2 ASP A 101 170.942 135.729 163.133 1.00 43.41 O
ATOM 126 N LEU A 102 173.829 139.965 163.783 1.00 42.15 N
ATOM 127 CA LEU A 102 173.527 141.370 164.000 1.00 42.15 C
ATOM 128 C LEU A 102 173.236 142.036 162.662 1.00 42.15 C
ATOM 129 O LEU A 102 173.597 141.517 161.606 1.00 42.15 O
ATOM 130 CB LEU A 102 174.693 142.070 164.706 1.00 42.15 C
ATOM 131 CG LEU A 102 175.380 141.239 165.793 1.00 42.15 C
ATOM 132 CD1 LEU A 102 176.698 141.858 166.203 1.00 42.15 C
ATOM 133 CD2 LEU A 102 174.482 141.083 166.997 1.00 42.15 C

ATOM 134 N ILE A 103 172.572 143.193 162.705 1.00 44.75 N
ATOM 135 CA ILE A 103 172.253 143.936 161.489 1.00 44.75 C
ATOM 136 C ILE A 103 172.159 145.422 161.806 1.00 44.75 C
ATOM 137 O ILE A 103 171.679 145.819 162.869 1.00 44.75 O
ATOM 138 CB ILE A 103 170.946 143.436 160.835 1.00 44.75 C
ATOM 139 CG1 ILE A 103 169.746 143.795 161.702 1.00 44.75 C
ATOM 140 CG2 ILE A 103 170.991 141.944 160.598 1.00 44.75 C
ATOM 141 CD1 ILE A 103 168.429 143.375 161.102 1.00 44.75 C
ATOM 142 N ARG A 104 172.626 146.244 160.865 1.00 52.23 N
ATOM 143 CA ARG A 104 172.613 147.701 160.908 1.00 52.23 C
ATOM 144 C ARG A 104 171.518 148.253 159.995 1.00 52.23 C
ATOM 145 O ARG A 104 170.669 147.512 159.493 1.00 52.23 O
ATOM 146 CB ARG A 104 173.980 148.248 160.511 1.00 52.23 C
ATOM 147 CG ARG A 104 175.062 148.035 161.529 1.00 52.23 C
ATOM 148 CD ARG A 104 176.286 148.814 161.118 1.00 52.23 C
ATOM 149 NE ARG A 104 176.654 148.525 159.738 1.00 52.23 N
ATOM 150 CZ ARG A 104 177.258 149.388 158.933 1.00 52.23 C
ATOM 151 NH1 ARG A 104 177.558 150.603 159.367 1.00 52.23 N
ATOM 152 NH2 ARG A 104 177.558 149.040 157.692 1.00 52.23 N
ATOM 153 N PHE A 105 171.538 149.577 159.780 1.00 59.53 N
ATOM 154 CA PHE A 105 170.580 150.231 158.892 1.00 59.53 C
ATOM 155 C PHE A 105 171.223 151.177 157.879 1.00 59.53 C
ATOM 156 O PHE A 105 170.540 152.070 157.372 1.00 59.53 O
ATOM 157 CB PHE A 105 169.521 150.998 159.687 1.00 59.53 C
ATOM 158 CG PHE A 105 168.442 150.132 160.262 1.00 59.53 C
ATOM 159 CD1 PHE A 105 167.375 149.727 159.476 1.00 59.53 C
ATOM 160 CD2 PHE A 105 168.480 149.738 161.585 1.00 59.53 C
ATOM 161 CE1 PHE A 105 166.377 148.939 159.997 1.00 59.53 C
ATOM 162 CE2 PHE A 105 167.483 148.949 162.113 1.00 59.53 C
ATOM 163 CZ PHE A 105 166.429 148.548 161.317 1.00 59.53 C
ATOM 164 N GLU A 106 172.509 151.016 157.567 1.00 71.98 N
ATOM 165 CA GLU A 106 173.090 151.578 156.343 1.00 71.98 C
ATOM 166 C GLU A 106 172.840 153.088 156.235 1.00 71.98 C
ATOM 167 O GLU A 106 172.029 153.562 155.439 1.00 71.98 O

ATOM 168 CB GLU A 106 172.569 150.848 155.102 1.00 71.98 C
ATOM 169 CG GLU A 106 173.118 151.403 153.797 1.00 71.98 C
ATOM 170 CD GLU A 106 174.616 151.663 153.840 1.00 71.98 C
ATOM 171 OE1 GLU A 106 175.284 151.211 154.792 1.00 71.98 O
ATOM 172 OE2 GLU A 106 175.129 152.327 152.916 1.00 71.98 O
ATOM 173 N ARG A 107 173.556 153.827 157.079 1.00 79.28 N
ATOM 174 CA ARG A 107 173.368 155.262 157.274 1.00 79.28 C
ATOM 175 C ARG A 107 172.960 156.055 156.033 1.00 79.28 C
ATOM 176 O ARG A 107 171.950 156.764 156.068 1.00 79.28 O
ATOM 177 CB ARG A 107 174.656 155.867 157.835 1.00 79.28 C
ATOM 178 CG ARG A 107 174.581 157.359 158.090 1.00 79.28 C
ATOM 179 CD ARG A 107 175.942 157.921 158.467 1.00 79.28 C
ATOM 180 NE ARG A 107 176.446 157.359 159.716 1.00 79.28 N
ATOM 181 CZ ARG A 107 177.245 156.299 159.790 1.00 79.28 C
ATOM 182 NH1 ARG A 107 177.656 155.856 160.971 1.00 79.28 N
ATOM 183 NH2 ARG A 107 177.633 155.681 158.684 1.00 79.28 N
ATOM 184 N ASN A 108 173.716 155.966 154.938 1.00 84.00 N
ATOM 185 CA ASN A 108 173.516 156.877 153.816 1.00 84.00 C
ATOM 186 C ASN A 108 173.460 156.113 152.499 1.00 84.00 C
ATOM 187 O ASN A 108 173.856 154.949 152.408 1.00 84.00 O
ATOM 188 CB ASN A 108 174.620 157.941 153.756 1.00 84.00 C
ATOM 189 CG ASN A 108 175.906 157.413 153.151 1.00 84.00 C
ATOM 190 OD1 ASN A 108 176.010 157.242 151.937 1.00 84.00 O
ATOM 191 ND2 ASN A 108 176.896 157.155 153.997 1.00 84.00 N
ATOM 192 N ILE A 109 172.974 156.800 151.467 1.00 86.09 N
ATOM 193 CA ILE A 109 172.846 156.234 150.127 1.00 86.09 C
ATOM 194 C ILE A 109 172.836 157.378 149.122 1.00 86.09 C
ATOM 195 O ILE A 109 172.325 158.465 149.404 1.00 86.09 O
ATOM 196 CB ILE A 109 171.571 155.368 149.999 1.00 86.09 C
ATOM 197 CG1 ILE A 109 171.715 154.065 150.783 1.00 86.09 C
ATOM 198 CG2 ILE A 109 171.266 155.082 148.538 1.00 86.09 C
ATOM 199 CD1 ILE A 109 170.428 153.286 150.886 1.00 86.09 C
ATOM 200 N VAL A 110 173.405 157.126 147.943 1.00 93.76 N
ATOM 201 CA VAL A 110 173.355 158.047 146.811 1.00 93.76 C

ATOM 202 C VAL A 110 172.947 157.254 145.577 1.00 93.76 C
ATOM 203 O VAL A 110 173.571 156.236 145.258 1.00 93.76 O
ATOM 204 CB VAL A 110 174.705 158.754 146.589 1.00 93.76 C
ATOM 205 CG1 VAL A 110 175.056 159.614 147.791 1.00 93.76 C
ATOM 206 CG2 VAL A 110 175.800 157.734 146.321 1.00 93.76 C
ATOM 207 N CYS A 111 171.904 157.717 144.881 1.00 98.50 N
ATOM 208 CA CYS A 111 171.318 156.893 143.823 1.00 98.50 C
ATOM 209 C CYS A 111 172.111 156.989 142.522 1.00 98.50 C
ATOM 210 O CYS A 111 172.787 156.036 142.122 1.00 98.50 O
ATOM 211 CB CYS A 111 169.861 157.309 143.586 1.00 98.50 C
ATOM 212 SG CYS A 111 168.630 156.563 144.683 1.00 98.50 S
ATOM 213 N THR A 112 172.046 158.141 141.853 1.00105.15 N
ATOM 214 CA THR A 112 172.784 158.345 140.611 1.00105.15 C
ATOM 215 C THR A 112 172.446 159.698 139.997 1.00105.15 C
ATOM 216 O THR A 112 171.589 160.421 140.514 1.00105.15 O
ATOM 217 CB THR A 112 172.495 157.223 139.614 1.00105.15 C
ATOM 218 OG1 THR A 112 173.423 157.301 138.527 1.00105.15 O
ATOM 219 CG2 THR A 112 171.084 157.348 139.077 1.00105.15 C
ATOM 220 N SER A 113 173.115 160.051 138.897 1.00107.97 N
ATOM 221 CA SER A 113 172.719 161.189 138.058 1.00107.97 C
ATOM 222 C SER A 113 172.801 160.725 136.604 1.00107.97 C
ATOM 223 O SER A 113 173.823 160.912 135.939 1.00107.97 O
ATOM 224 CB SER A 113 173.599 162.405 138.316 1.00107.97 C
ATOM 225 OG SER A 113 173.577 163.293 137.212 1.00107.97 O
ATOM 226 N MET A 114 171.721 160.118 136.117 1.00105.04 N
ATOM 227 CA MET A 114 171.720 159.497 134.791 1.00105.04 C
ATOM 228 C MET A 114 171.152 160.412 133.708 1.00105.04 C
ATOM 229 O MET A 114 170.287 160.001 132.937 1.00105.04 O
ATOM 230 CB MET A 114 170.944 158.186 134.841 1.00105.04 C
ATOM 231 CG MET A 114 171.608 157.094 135.657 1.00105.04 C
ATOM 232 SD MET A 114 170.670 155.557 135.655 1.00105.04 S
ATOM 233 CE MET A 114 169.335 155.974 136.772 1.00105.04 C
ATOM 234 N LYS A 115 171.615 161.658 133.627 1.00111.43 N
ATOM 235 CA LYS A 115 171.336 162.420 132.414 1.00111.43 C

ATOM 236 C LYS A 115 172.498 163.330 132.026 1.00111.43 C
ATOM 237 O LYS A 115 172.268 164.471 131.608 1.00111.43 O
ATOM 238 CB LYS A 115 170.054 163.239 132.602 1.00111.43 C
ATOM 239 CG LYS A 115 170.095 164.232 133.761 1.00111.43 C
ATOM 240 CD LYS A 115 170.547 165.615 133.324 1.00111.43 C
ATOM 241 CE LYS A 115 170.505 166.602 134.478 1.00111.43 C
ATOM 242 NZ LYS A 115 170.978 167.954 134.069 1.00111.43 N
ATOM 243 N PRO A 116 173.751 162.868 132.103 1.00118.44 N
ATOM 244 CA PRO A 116 174.866 163.773 131.796 1.00118.44 C
ATOM 245 C PRO A 116 175.195 163.907 130.316 1.00118.44 C
ATOM 246 O PRO A 116 175.411 165.022 129.827 1.00118.44 O
ATOM 247 CB PRO A 116 176.045 163.139 132.553 1.00118.44 C
ATOM 248 CG PRO A 116 175.450 162.006 133.375 1.00118.44 C
ATOM 249 CD PRO A 116 174.244 161.582 132.614 1.00118.44 C
ATOM 250 N ILE A 117 175.226 162.792 129.593 1.00120.01 N
ATOM 251 CA ILE A 117 175.925 162.734 128.312 1.00120.01 C
ATOM 252 C ILE A 117 175.553 161.445 127.597 1.00120.01 C
ATOM 253 O ILE A 117 175.011 160.518 128.210 1.00120.01 O
ATOM 254 CB ILE A 117 177.456 162.849 128.544 1.00120.01 C
ATOM 255 CG1 ILE A 117 178.228 162.691 127.232 1.00120.01 C
ATOM 256 CG2 ILE A 117 177.903 161.842 129.581 1.00120.01 C
ATOM 257 CD1 ILE A 117 179.720 162.879 127.377 1.00120.01 C
ATOM 258 N ASN A 118 175.847 161.387 126.295 1.00118.26 N
ATOM 259 CA ASN A 118 175.778 160.160 125.499 1.00118.26 C
ATOM 260 C ASN A 118 174.340 159.648 125.373 1.00118.26 C
ATOM 261 O ASN A 118 173.976 158.574 125.857 1.00118.26 O
ATOM 262 CB ASN A 118 176.691 159.080 126.092 1.00118.26 C
ATOM 263 CG ASN A 118 178.110 159.158 125.563 1.00118.26 C
ATOM 264 OD1 ASN A 118 178.467 158.467 124.610 1.00118.26 O
ATOM 265 ND2 ASN A 118 178.929 159.994 126.187 1.00118.26 N
ATOM 266 N GLU A 119 173.523 160.460 124.700 1.00108.93 N
ATOM 267 CA GLU A 119 172.157 160.067 124.352 1.00108.93 C
ATOM 268 C GLU A 119 172.202 159.053 123.207 1.00108.93 C
ATOM 269 O GLU A 119 171.747 159.292 122.087 1.00108.93 O

```
ATOM   270  CB  GLU A 119     171.325 161.288 123.988  1.00108.93           C
ATOM   271  CG  GLU A 119     169.858 161.185 124.381  1.00108.93           C
ATOM   272  CD  GLU A 119     169.075 160.227 123.504  1.00108.93           C
ATOM   273  OE1 GLU A 119     169.402 160.108 122.306  1.00108.93           O
ATOM   274  OE2 GLU A 119     168.126 159.596 124.012  1.00108.93           O
ATOM   275  N   ASP A 120     172.790 157.892 123.512  1.00107.36           N
ATOM   276  CA  ASP A 120     172.821 156.757 122.597  1.00107.36           C
ATOM   277  C   ASP A 120     172.623 155.449 123.352  1.00107.36           C
ATOM   278  O   ASP A 120     173.177 154.413 122.968  1.00107.36           O
ATOM   279  CB  ASP A 120     174.129 156.718 121.807  1.00107.36           C
ATOM   280  CG  ASP A 120     175.348 156.833 122.695  1.00107.36           C
ATOM   281  OD1 ASP A 120     175.563 157.919 123.272  1.00107.36           O
ATOM   282  OD2 ASP A 120     176.091 155.838 122.816  1.00107.36           O
ATOM   283  N   LEU A 121     171.835 155.483 124.421  1.00 94.83           N
ATOM   284  CA  LEU A 121     171.737 154.358 125.338  1.00 94.83           C
ATOM   285  C   LEU A 121     171.259 153.093 124.631  1.00 94.83           C
ATOM   286  O   LEU A 121     170.550 153.142 123.624  1.00 94.83           O
ATOM   287  CB  LEU A 121     170.803 154.717 126.493  1.00 94.83           C
ATOM   288  CG  LEU A 121     169.323 154.887 126.166  1.00 94.83           C
ATOM   289  CD1 LEU A 121     168.508 154.928 127.439  1.00 94.83           C
ATOM   290  CD2 LEU A 121     169.105 156.150 125.365  1.00 94.83           C
ATOM   291  N   ASP A 122     171.662 151.951 125.183  1.00 95.17           N
ATOM   292  CA  ASP A 122     171.395 150.617 124.655  1.00 95.17           C
ATOM   293  C   ASP A 122     170.606 149.812 125.687  1.00 95.17           C
ATOM   294  O   ASP A 122     170.323 150.283 126.791  1.00 95.17           O
ATOM   295  CB  ASP A 122     172.709 149.918 124.289  1.00 95.17           C
ATOM   296  CG  ASP A 122     172.498 148.638 123.507  1.00 95.17           C
ATOM   297  OD1 ASP A 122     171.499 147.938 123.767  1.00 95.17           O
ATOM   298  OD2 ASP A 122     173.336 148.326 122.635  1.00 95.17           O
ATOM   299  N   GLU A 123     170.255 148.580 125.322  1.00 95.33           N
ATOM   300  CA  GLU A 123     169.456 147.698 126.164  1.00 95.33           C
ATOM   301  C   GLU A 123     170.102 146.317 126.222  1.00 95.33           C
ATOM   302  O   GLU A 123     171.158 146.075 125.631  1.00 95.33           O
ATOM   303  CB  GLU A 123     168.016 147.610 125.647  1.00 95.33           C
```

ATOM 304 CG GLU A 123 167.916 147.286 124.170 1.00 95.33 C
ATOM 305 CD GLU A 123 166.488 147.293 123.669 1.00 95.33 C
ATOM 306 OE1 GLU A 123 165.570 147.500 124.489 1.00 95.33 O
ATOM 307 OE2 GLU A 123 166.281 147.093 122.454 1.00 95.33 O
ATOM 308 N GLY A 124 169.461 145.406 126.947 1.00 89.93 N
ATOM 309 CA GLY A 124 169.970 144.055 127.064 1.00 89.93 C
ATOM 310 C GLY A 124 169.304 143.316 128.208 1.00 89.93 C
ATOM 311 O GLY A 124 168.356 143.808 128.825 1.00 89.93 O
ATOM 312 N ILE A 125 169.825 142.117 128.474 1.00 87.86 N
ATOM 313 CA ILE A 125 169.356 141.245 129.545 1.00 87.86 C
ATOM 314 C ILE A 125 170.526 140.947 130.468 1.00 87.86 C
ATOM 315 O ILE A 125 171.644 140.703 130.003 1.00 87.86 O
ATOM 316 CB ILE A 125 168.764 139.934 128.994 1.00 87.86 C
ATOM 317 CG1 ILE A 125 169.733 139.306 127.994 1.00 87.86 C
ATOM 318 CG2 ILE A 125 167.422 140.186 128.347 1.00 87.86 C
ATOM 319 CD1 ILE A 125 169.195 138.070 127.318 1.00 87.86 C
ATOM 320 N MET A 126 170.269 140.952 131.774 1.00 85.46 N
ATOM 321 CA MET A 126 171.331 140.808 132.758 1.00 85.46 C
ATOM 322 C MET A 126 170.856 139.960 133.927 1.00 85.46 C
ATOM 323 O MET A 126 169.661 139.897 134.223 1.00 85.46 O
ATOM 324 CB MET A 126 171.799 142.173 133.271 1.00 85.46 C
ATOM 325 CG MET A 126 170.773 142.880 134.133 1.00 85.46 C
ATOM 326 SD MET A 126 171.436 144.327 134.971 1.00 85.46 S
ATOM 327 CE MET A 126 170.063 144.756 136.033 1.00 85.46 C
ATOM 328 N VAL A 127 171.811 139.305 134.585 1.00 84.75 N
ATOM 329 CA VAL A 127 171.583 138.591 135.838 1.00 84.75 C
ATOM 330 C VAL A 127 172.684 139.000 136.805 1.00 84.75 C
ATOM 331 O VAL A 127 173.870 138.789 136.527 1.00 84.75 O
ATOM 332 CB VAL A 127 171.565 137.066 135.650 1.00 84.75 C
ATOM 333 CG1 VAL A 127 170.494 136.674 134.655 1.00 84.75 C
ATOM 334 CG2 VAL A 127 172.920 136.568 135.195 1.00 84.75 C
ATOM 335 N VAL A 128 172.296 139.588 137.931 1.00 89.98 N
ATOM 336 CA VAL A 128 173.236 140.141 138.896 1.00 89.98 C
ATOM 337 C VAL A 128 173.197 139.313 140.169 1.00 89.98 C

ATOM 338 O VAL A 128 172.166 138.732 140.522 1.00 89.98 O
ATOM 339 CB VAL A 128 172.913 141.616 139.207 1.00 89.98 C
ATOM 340 CG1 VAL A 128 171.547 141.720 139.846 1.00 89.98 C
ATOM 341 CG2 VAL A 128 173.960 142.201 140.127 1.00 89.98 C
ATOM 342 N TYR A 129 174.329 139.265 140.867 1.00 91.70 N
ATOM 343 CA TYR A 129 174.344 138.722 142.216 1.00 91.70 C
ATOM 344 C TYR A 129 175.540 139.269 142.981 1.00 91.70 C
ATOM 345 O TYR A 129 176.446 139.882 142.414 1.00 91.70 O
ATOM 346 CB TYR A 129 174.335 137.192 142.226 1.00 91.70 C
ATOM 347 CG TYR A 129 175.222 136.500 141.225 1.00 91.70 C
ATOM 348 CD1 TYR A 129 176.594 136.469 141.388 1.00 91.70 C
ATOM 349 CD2 TYR A 129 174.677 135.838 140.139 1.00 91.70 C
ATOM 350 CE1 TYR A 129 177.396 135.817 140.486 1.00 91.70 C
ATOM 351 CE2 TYR A 129 175.470 135.185 139.235 1.00 91.70 C
ATOM 352 CZ TYR A 129 176.829 135.177 139.411 1.00 91.70 C
ATOM 353 OH TYR A 129 177.626 134.524 138.503 1.00 91.70 O
ATOM 354 N LYS A 130 175.521 139.034 144.291 1.00 95.82 N
ATOM 355 CA LYS A 130 176.389 139.681 145.259 1.00 95.82 C
ATOM 356 C LYS A 130 177.349 138.674 145.888 1.00 95.82 C
ATOM 357 O LYS A 130 177.431 137.512 145.475 1.00 95.82 O
ATOM 358 CB LYS A 130 175.535 140.381 146.316 1.00 95.82 C
ATOM 359 CG LYS A 130 174.682 139.427 147.126 1.00 95.82 C
ATOM 360 CD LYS A 130 173.768 140.169 148.080 1.00 95.82 C
ATOM 361 CE LYS A 130 172.958 139.197 148.921 1.00 95.82 C
ATOM 362 NZ LYS A 130 171.998 138.410 148.103 1.00 95.82 N
ATOM 363 N ARG A 131 178.084 139.132 146.898 1.00 99.74 N
ATOM 364 CA ARG A 131 179.106 138.340 147.568 1.00 99.74 C
ATOM 365 C ARG A 131 178.602 137.892 148.932 1.00 99.74 C
ATOM 366 O ARG A 131 178.084 138.704 149.704 1.00 99.74 O
ATOM 367 CB ARG A 131 180.399 139.143 147.719 1.00 99.74 C
ATOM 368 CG ARG A 131 181.495 138.412 148.467 1.00 99.74 C
ATOM 369 CD ARG A 131 182.865 138.967 148.126 1.00 99.74 C
ATOM 370 NE ARG A 131 183.926 138.279 148.855 1.00 99.74 N
ATOM 371 CZ ARG A 131 184.388 137.073 148.541 1.00 99.74 C

ATOM 372 NH1 ARG A 131 185.355 136.523 149.262 1.00 99.74 N
ATOM 373 NH2 ARG A 131 183.878 136.414 147.510 1.00 99.74 N
ATOM 374 N ASN A 132 178.753 136.600 149.222 1.00 97.19 N
ATOM 375 CA ASN A 132 178.327 136.032 150.493 1.00 97.19 C
ATOM 376 C ASN A 132 179.261 134.898 150.888 1.00 97.19 C
ATOM 377 O ASN A 132 179.732 134.137 150.039 1.00 97.19 O
ATOM 378 CB ASN A 132 176.887 135.516 150.428 1.00 97.19 C
ATOM 379 CG ASN A 132 175.880 136.560 150.844 1.00 97.19 C
ATOM 380 OD1 ASN A 132 176.162 137.404 151.693 1.00 97.19 O
ATOM 381 ND2 ASN A 132 174.696 136.511 150.248 1.00 97.19 N
ATOM 382 N ILE A 133 179.519 134.792 152.190 1.00 87.69 N
ATOM 383 CA ILE A 133 180.331 133.720 152.752 1.00 87.69 C
ATOM 384 C ILE A 133 179.512 132.991 153.808 1.00 87.69 C
ATOM 385 O ILE A 133 178.663 133.581 154.483 1.00 87.69 O
ATOM 386 CB ILE A 133 181.653 134.245 153.349 1.00 87.69 C
ATOM 387 CG1 ILE A 133 182.551 134.806 152.247 1.00 87.69 C
ATOM 388 CG2 ILE A 133 182.371 133.145 154.102 1.00 87.69 C
ATOM 389 CD1 ILE A 133 182.381 136.287 152.024 1.00 87.69 C
ATOM 390 N VAL A 134 179.776 131.693 153.948 1.00 75.15 N
ATOM 391 CA VAL A 134 179.000 130.825 154.827 1.00 75.15 C
ATOM 392 C VAL A 134 179.431 130.996 156.279 1.00 75.15 C
ATOM 393 O VAL A 134 180.502 131.543 156.564 1.00 75.15 O
ATOM 394 CB VAL A 134 179.128 129.355 154.391 1.00 75.15 C
ATOM 395 CG1 VAL A 134 178.549 129.167 153.003 1.00 75.15 C
ATOM 396 CG2 VAL A 134 180.581 128.926 154.420 1.00 75.15 C
ATOM 397 N ALA A 135 178.594 130.530 157.202 1.00 58.42 N
ATOM 398 CA ALA A 135 178.862 130.560 158.628 1.00 58.42 C
ATOM 399 C ALA A 135 179.267 129.165 159.103 1.00 58.42 C
ATOM 400 O ALA A 135 179.531 128.264 158.304 1.00 58.42 O
ATOM 401 CB ALA A 135 177.639 131.090 159.375 1.00 58.42 C
ATOM 402 N HIS A 136 179.325 128.979 160.420 1.00 49.38 N
ATOM 403 CA HIS A 136 179.757 127.714 160.994 1.00 49.38 C
ATOM 404 C HIS A 136 179.044 127.512 162.326 1.00 49.38 C
ATOM 405 O HIS A 136 178.869 128.468 163.083 1.00 49.38 O

ATOM 406 CB HIS A 136 181.276 127.706 161.180 1.00 49.38 C
ATOM 407 CG HIS A 136 181.895 126.351 161.067 1.00 49.38 C
ATOM 408 ND1 HIS A 136 183.124 126.048 161.609 1.00 49.38 N
ATOM 409 CD2 HIS A 136 181.463 125.222 160.459 1.00 49.38 C
ATOM 410 CE1 HIS A 136 183.417 124.787 161.352 1.00 49.38 C
ATOM 411 NE2 HIS A 136 182.426 124.263 160.654 1.00 49.38 N
ATOM 412 N THR A 137 178.629 126.274 162.609 1.00 42.77 N
ATOM 413 CA THR A 137 177.916 125.956 163.845 1.00 42.77 C
ATOM 414 C THR A 137 178.415 124.627 164.397 1.00 42.77 C
ATOM 415 O THR A 137 178.425 123.629 163.672 1.00 42.77 O
ATOM 416 CB THR A 137 176.406 125.890 163.604 1.00 42.77 C
ATOM 417 OG1 THR A 137 176.085 124.662 162.947 1.00 42.77 O
ATOM 418 CG2 THR A 137 175.958 127.043 162.727 1.00 42.77 C
ATOM 419 N PHE A 138 178.826 124.601 165.682 1.00 42.36 N
ATOM 420 CA PHE A 138 179.553 123.429 166.161 1.00 42.36 C
ATOM 421 C PHE A 138 179.239 122.958 167.587 1.00 42.36 C
ATOM 422 O PHE A 138 180.042 122.211 168.157 1.00 42.36 O
ATOM 423 CB PHE A 138 181.056 123.671 166.042 1.00 42.36 C
ATOM 424 CG PHE A 138 181.507 124.973 166.618 1.00 42.36 C
ATOM 425 CD1 PHE A 138 181.316 126.149 165.928 1.00 42.36 C
ATOM 426 CD2 PHE A 138 182.131 125.018 167.845 1.00 42.36 C
ATOM 427 CE1 PHE A 138 181.730 127.340 166.451 1.00 42.36 C
ATOM 428 CE2 PHE A 138 182.548 126.208 168.371 1.00 42.36 C
ATOM 429 CZ PHE A 138 182.347 127.372 167.674 1.00 42.36 C
ATOM 430 N LYS A 139 178.115 123.343 168.192 1.00 37.90 N
ATOM 431 CA LYS A 139 177.568 122.599 169.334 1.00 37.90 C
ATOM 432 C LYS A 139 178.554 122.514 170.510 1.00 37.90 C
ATOM 433 O LYS A 139 179.115 121.460 170.808 1.00 37.90 O
ATOM 434 CB LYS A 139 177.144 121.198 168.882 1.00 37.90 C
ATOM 435 CG LYS A 139 176.473 120.365 169.955 1.00 37.90 C
ATOM 436 CD LYS A 139 175.106 120.919 170.311 1.00 37.90 C
ATOM 437 CE LYS A 139 174.112 120.734 169.178 1.00 37.90 C
ATOM 438 NZ LYS A 139 173.690 119.316 169.039 1.00 37.90 N
ATOM 439 N VAL A 140 178.770 123.659 171.166 1.00 36.42 N

ATOM 440 CA VAL A 140 179.659 123.741 172.329 1.00 36.42 C
ATOM 441 C VAL A 140 178.946 123.342 173.621 1.00 36.42 C
ATOM 442 O VAL A 140 177.715 123.265 173.665 1.00 36.42 O
ATOM 443 CB VAL A 140 180.249 125.154 172.476 1.00 36.42 C
ATOM 444 CG1 VAL A 140 181.011 125.542 171.233 1.00 36.42 C
ATOM 445 CG2 VAL A 140 179.160 126.154 172.768 1.00 36.42 C
ATOM 446 N ARG A 141 179.721 123.096 174.684 1.00 37.17 N
ATOM 447 CA ARG A 141 179.214 122.740 176.006 1.00 37.17 C
ATOM 448 C ARG A 141 179.702 123.735 177.051 1.00 37.17 C
ATOM 449 O ARG A 141 180.746 124.368 176.882 1.00 37.17 O
ATOM 450 CB ARG A 141 179.660 121.341 176.432 1.00 37.17 C
ATOM 451 CG ARG A 141 179.177 120.225 175.546 1.00 37.17 C
ATOM 452 CD ARG A 141 179.803 118.911 175.963 1.00 37.17 C
ATOM 453 NE ARG A 141 181.224 118.866 175.644 1.00 37.17 N
ATOM 454 CZ ARG A 141 181.717 118.420 174.495 1.00 37.17 C
ATOM 455 NH1 ARG A 141 180.900 117.976 173.551 1.00 37.17 N
ATOM 456 NH2 ARG A 141 183.025 118.416 174.289 1.00 37.17 N
ATOM 457 N VAL A 142 178.948 123.859 178.144 1.00 35.61 N
ATOM 458 CA VAL A 142 179.264 124.784 179.228 1.00 35.61 C
ATOM 459 C VAL A 142 179.084 124.078 180.564 1.00 35.61 C
ATOM 460 O VAL A 142 178.083 123.387 180.778 1.00 35.61 O
ATOM 461 CB VAL A 142 178.381 126.046 179.179 1.00 35.61 C
ATOM 462 CG1 VAL A 142 178.757 126.986 180.296 1.00 35.61 C
ATOM 463 CG2 VAL A 142 178.511 126.736 177.843 1.00 35.61 C
ATOM 464 N TYR A 143 180.045 124.256 181.465 1.00 41.95 N
ATOM 465 CA TYR A 143 179.958 123.744 182.824 1.00 41.95 C
ATOM 466 C TYR A 143 179.797 124.901 183.800 1.00 41.95 C
ATOM 467 O TYR A 143 180.110 126.050 183.487 1.00 41.95 O
ATOM 468 CB TYR A 143 181.197 122.922 183.192 1.00 41.95 C
ATOM 469 CG TYR A 143 181.457 121.752 182.278 1.00 41.95 C
ATOM 470 CD1 TYR A 143 182.118 121.920 181.077 1.00 41.95 C
ATOM 471 CD2 TYR A 143 181.043 120.478 182.619 1.00 41.95 C
ATOM 472 CE1 TYR A 143 182.358 120.856 180.241 1.00 41.95 C
ATOM 473 CE2 TYR A 143 181.279 119.409 181.788 1.00 41.95 C

ATOM 474 CZ TYR A 143 181.938 119.603 180.600 1.00 41.95 C
ATOM 475 OH TYR A 143 182.178 118.537 179.766 1.00 41.95 O
ATOM 476 N GLN A 144 179.304 124.589 184.995 1.00 48.15 N
ATOM 477 CA GLN A 144 179.012 125.621 185.984 1.00 48.15 C
ATOM 478 C GLN A 144 178.565 124.938 187.269 1.00 48.15 C
ATOM 479 O GLN A 144 178.319 123.729 187.298 1.00 48.15 O
ATOM 480 CB GLN A 144 177.942 126.584 185.484 1.00 48.15 C
ATOM 481 CG GLN A 144 177.802 127.840 186.301 1.00 48.15 C
ATOM 482 CD GLN A 144 177.113 128.942 185.533 1.00 48.15 C
ATOM 483 OE1 GLN A 144 176.315 128.682 184.636 1.00 48.15 O
ATOM 484 NE2 GLN A 144 177.421 130.183 185.876 1.00 48.15 N
ATOM 485 N LYS A 145 178.455 125.730 188.334 1.00 55.95 N
ATOM 486 CA LYS A 145 178.093 125.198 189.646 1.00 55.95 C
ATOM 487 C LYS A 145 177.561 126.337 190.499 1.00 55.95 C
ATOM 488 O LYS A 145 178.288 127.300 190.758 1.00 55.95 O
ATOM 489 CB LYS A 145 179.296 124.540 190.310 1.00 55.95 C
ATOM 490 CG LYS A 145 179.005 123.935 191.659 1.00 55.95 C
ATOM 491 CD LYS A 145 180.287 123.678 192.418 1.00 55.95 C
ATOM 492 CE LYS A 145 180.911 122.361 192.016 1.00 55.95 C
ATOM 493 NZ LYS A 145 180.123 121.208 192.507 1.00 55.95 N
ATOM 494 N VAL A 146 176.308 126.231 190.934 1.00 61.82 N
ATOM 495 CA VAL A 146 175.633 127.283 191.686 1.00 61.82 C
ATOM 496 C VAL A 146 175.529 126.868 193.146 1.00 61.82 C
ATOM 497 O VAL A 146 175.314 125.691 193.454 1.00 61.82 O
ATOM 498 CB VAL A 146 174.235 127.580 191.112 1.00 61.82 C
ATOM 499 CG1 VAL A 146 173.529 128.614 191.960 1.00 61.82 C
ATOM 500 CG2 VAL A 146 174.342 128.054 189.681 1.00 61.82 C
ATOM 501 N LEU A 147 175.676 127.842 194.043 1.00 71.75 N
ATOM 502 CA LEU A 147 175.510 127.610 195.471 1.00 71.75 C
ATOM 503 C LEU A 147 174.886 128.851 196.090 1.00 71.75 C
ATOM 504 O LEU A 147 175.418 129.954 195.937 1.00 71.75 O
ATOM 505 CB LEU A 147 176.845 127.279 196.146 1.00 71.75 C
ATOM 506 CG LEU A 147 177.835 128.417 196.372 1.00 71.75 C
ATOM 507 CD1 LEU A 147 178.904 127.987 197.352 1.00 71.75 C

ATOM 508 CD2 LEU A 147 178.459 128.840 195.066 1.00 71.75 C
ATOM 509 N THR A 148 173.769 128.666 196.791 1.00 80.47 N
ATOM 510 CA THR A 148 172.933 129.760 197.265 1.00 80.47 C
ATOM 511 C THR A 148 172.875 129.782 198.786 1.00 80.47 C
ATOM 512 O THR A 148 172.852 128.730 199.433 1.00 80.47 O
ATOM 513 CB THR A 148 171.519 129.641 196.703 1.00 80.47 C
ATOM 514 OG1 THR A 148 170.687 130.651 197.283 1.00 80.47 O
ATOM 515 CG2 THR A 148 170.945 128.277 197.012 1.00 80.47 C
ATOM 516 N PHE A 149 172.845 130.988 199.348 1.00 84.21 N
ATOM 517 CA PHE A 149 172.790 131.211 200.785 1.00 84.21 C
ATOM 518 C PHE A 149 171.414 131.726 201.188 1.00 84.21 C
ATOM 519 O PHE A 149 170.661 132.258 200.369 1.00 84.21 O
ATOM 520 CB PHE A 149 173.863 132.210 201.226 1.00 84.21 C
ATOM 521 CG PHE A 149 175.263 131.764 200.932 1.00 84.21 C
ATOM 522 CD1 PHE A 149 175.761 130.598 201.481 1.00 84.21 C
ATOM 523 CD2 PHE A 149 176.082 132.512 200.109 1.00 84.21 C
ATOM 524 CE1 PHE A 149 177.049 130.188 201.214 1.00 84.21 C
ATOM 525 CE2 PHE A 149 177.370 132.106 199.839 1.00 84.21 C
ATOM 526 CZ PHE A 149 177.854 130.942 200.392 1.00 84.21 C
ATOM 527 N ARG A 150 171.094 131.566 202.469 1.00 95.49 N
ATOM 528 CA ARG A 150 169.785 131.965 202.965 1.00 95.49 C
ATOM 529 C ARG A 150 169.780 131.870 204.483 1.00 95.49 C
ATOM 530 O ARG A 150 170.412 130.981 205.060 1.00 95.49 O
ATOM 531 CB ARG A 150 168.681 131.088 202.366 1.00 95.49 C
ATOM 532 CG ARG A 150 167.347 131.185 203.072 1.00 95.49 C
ATOM 533 CD ARG A 150 166.316 130.302 202.396 1.00 95.49 C
ATOM 534 NE ARG A 150 165.998 130.776 201.054 1.00 95.49 N
ATOM 535 CZ ARG A 150 166.495 130.247 199.941 1.00 95.49 C
ATOM 536 NH1 ARG A 150 167.333 129.223 200.011 1.00 95.49 N
ATOM 537 NH2 ARG A 150 166.153 130.740 198.759 1.00 95.49 N
ATOM 538 N ARG A 151 169.058 132.792 205.120 1.00 94.21 N
ATOM 539 CA ARG A 151 168.963 132.830 206.573 1.00 94.21 C
ATOM 540 C ARG A 151 167.580 133.323 206.976 1.00 94.21 C
ATOM 541 O ARG A 151 166.989 134.169 206.301 1.00 94.21 O

ATOM 542 CB ARG A 151 170.046 133.723 207.183 1.00 94.21 C
ATOM 543 CG ARG A 151 170.080 135.129 206.626 1.00 94.21 C
ATOM 544 CD ARG A 151 171.482 135.703 206.699 1.00 94.21 C
ATOM 545 NE ARG A 151 171.483 137.160 206.635 1.00 94.21 N
ATOM 546 CZ ARG A 151 171.359 137.859 205.512 1.00 94.21 C
ATOM 547 NH1 ARG A 151 171.220 137.235 204.352 1.00 94.21 N
ATOM 548 NH2 ARG A 151 171.371 139.183 205.550 1.00 94.21 N
ATOM 549 N SER A 152 167.072 132.788 208.087 1.00 94.56 N
ATOM 550 CA SER A 152 165.711 133.077 208.516 1.00 94.56 C
ATOM 551 C SER A 152 165.602 132.956 210.030 1.00 94.56 C
ATOM 552 O SER A 152 166.524 132.501 210.710 1.00 94.56 O
ATOM 553 CB SER A 152 164.710 132.141 207.837 1.00 94.56 C
ATOM 554 OG SER A 152 164.875 130.813 208.297 1.00 94.56 O
ATOM 555 N TYR A 153 164.443 133.370 210.548 1.00 95.70 N
ATOM 556 CA TYR A 153 164.104 133.294 211.963 1.00 95.70 C
ATOM 557 C TYR A 153 162.722 132.671 212.109 1.00 95.70 C
ATOM 558 O TYR A 153 161.794 133.027 211.377 1.00 95.70 O
ATOM 559 CB TYR A 153 164.128 134.680 212.618 1.00 95.70 C
ATOM 560 CG TYR A 153 164.170 134.650 214.128 1.00 95.70 C
ATOM 561 CD1 TYR A 153 163.079 134.219 214.864 1.00 95.70 C
ATOM 562 CD2 TYR A 153 165.300 135.058 214.818 1.00 95.70 C
ATOM 563 CE1 TYR A 153 163.113 134.190 216.239 1.00 95.70 C
ATOM 564 CE2 TYR A 153 165.342 135.032 216.193 1.00 95.70 C
ATOM 565 CZ TYR A 153 164.245 134.597 216.898 1.00 95.70 C
ATOM 566 OH TYR A 153 164.280 134.568 218.270 1.00 95.70 O
ATOM 567 N ALA A 154 162.586 131.749 213.058 1.00100.46 N
ATOM 568 CA ALA A 154 161.389 130.926 213.194 1.00100.46 C
ATOM 569 C ALA A 154 160.634 131.295 214.466 1.00100.46 C
ATOM 570 O ALA A 154 161.176 131.175 215.569 1.00100.46 O
ATOM 571 CB ALA A 154 161.756 129.442 213.205 1.00100.46 C
ATOM 572 N TYR A 155 159.387 131.737 214.308 1.00100.44 N
ATOM 573 CA TYR A 155 158.499 131.984 215.438 1.00100.44 C
ATOM 574 C TYR A 155 157.707 130.721 215.763 1.00100.44 C
ATOM 575 O TYR A 155 157.989 129.628 215.267 1.00100.44 O

ATOM 576 CB TYR A 155 157.558 133.151 215.152 1.00100.44 C
ATOM 577 CG TYR A 155 158.192 134.513 215.260 1.00100.44 C
ATOM 578 CD1 TYR A 155 159.398 134.686 215.918 1.00100.44 C
ATOM 579 CD2 TYR A 155 157.582 135.627 214.707 1.00100.44 C
ATOM 580 CE1 TYR A 155 159.980 135.930 216.019 1.00100.44 C
ATOM 581 CE2 TYR A 155 158.156 136.874 214.802 1.00100.44 C
ATOM 582 CZ TYR A 155 159.353 137.023 215.457 1.00100.44 C
ATOM 583 OH TYR A 155 159.915 138.276 215.542 1.00100.44 O
ATOM 584 N ILE A 156 156.696 130.872 216.619 1.00105.50 N
ATOM 585 CA ILE A 156 155.766 129.786 216.895 1.00105.50 C
ATOM 586 C ILE A 156 154.624 129.732 215.889 1.00105.50 C
ATOM 587 O ILE A 156 153.948 128.698 215.789 1.00105.50 O
ATOM 588 CB ILE A 156 155.181 129.911 218.311 1.00105.50 C
ATOM 589 CG1 ILE A 156 156.278 130.276 219.311 1.00105.50 C
ATOM 590 CG2 ILE A 156 154.493 128.620 218.713 1.00105.50 C
ATOM 591 CD1 ILE A 156 155.756 130.945 220.562 1.00105.50 C
ATOM 592 N HIS A 157 154.382 130.813 215.151 1.00109.14 N
ATOM 593 CA HIS A 157 153.286 130.882 214.194 1.00109.14 C
ATOM 594 C HIS A 157 153.763 130.970 212.753 1.00109.14 C
ATOM 595 O HIS A 157 153.385 130.137 211.924 1.00109.14 O
ATOM 596 CB HIS A 157 152.391 132.086 214.517 1.00109.14 C
ATOM 597 CG HIS A 157 150.940 131.852 214.237 1.00109.14 C
ATOM 598 ND1 HIS A 157 150.196 130.905 214.907 1.00109.14 N
ATOM 599 CD2 HIS A 157 150.095 132.445 213.361 1.00109.14 C
ATOM 600 CE1 HIS A 157 148.955 130.924 214.455 1.00109.14 C
ATOM 601 NE2 HIS A 157 148.867 131.849 213.516 1.00109.14 N
ATOM 602 N THR A 158 154.586 131.960 212.432 1.00105.54 N
ATOM 603 CA THR A 158 155.071 132.184 211.081 1.00105.54 C
ATOM 604 C THR A 158 156.575 131.930 211.013 1.00105.54 C
ATOM 605 O THR A 158 157.201 131.485 211.981 1.00105.54 O
ATOM 606 CB THR A 158 154.718 133.599 210.622 1.00105.54 C
ATOM 607 OG1 THR A 158 155.315 134.553 211.508 1.00105.54 O
ATOM 608 CG2 THR A 158 153.212 133.797 210.612 1.00105.54 C
ATOM 609 N THR A 159 157.157 132.211 209.850 1.00103.39 N

ATOM 610 CA THR A 159 158.593 132.066 209.644 1.00103.39 C
ATOM 611 C THR A 159 159.045 133.148 208.679 1.00103.39 C
ATOM 612 O THR A 159 158.560 133.206 207.545 1.00103.39 O
ATOM 613 CB THR A 159 158.938 130.680 209.099 1.00103.39 C
ATOM 614 OG1 THR A 159 158.301 129.679 209.901 1.00103.39 O
ATOM 615 CG2 THR A 159 160.440 130.460 209.121 1.00103.39 C
ATOM 616 N TYR A 160 159.963 133.997 209.122 1.00 98.20 N
ATOM 617 CA TYR A 160 160.433 135.119 208.328 1.00 98.20 C
ATOM 618 C TYR A 160 161.778 134.799 207.690 1.00 98.20 C
ATOM 619 O TYR A 160 162.505 133.905 208.128 1.00 98.20 O
ATOM 620 CB TYR A 160 160.545 136.381 209.186 1.00 98.20 C
ATOM 621 CG TYR A 160 159.220 136.863 209.727 1.00 98.20 C
ATOM 622 CD1 TYR A 160 158.558 136.160 210.723 1.00 98.20 C
ATOM 623 CD2 TYR A 160 158.631 138.021 209.243 1.00 98.20 C
ATOM 624 CE1 TYR A 160 157.350 136.595 211.219 1.00 98.20 C
ATOM 625 CE2 TYR A 160 157.420 138.463 209.734 1.00 98.20 C
ATOM 626 CZ TYR A 160 156.785 137.745 210.721 1.00 98.20 C
ATOM 627 OH TYR A 160 155.579 138.180 211.215 1.00 98.20 O
ATOM 628 N LEU A 161 162.100 135.548 206.638 1.00 93.16 N
ATOM 629 CA LEU A 161 163.351 135.391 205.908 1.00 93.16 C
ATOM 630 C LEU A 161 164.020 136.752 205.808 1.00 93.16 C
ATOM 631 O LEU A 161 163.466 137.673 205.202 1.00 93.16 O
ATOM 632 CB LEU A 161 163.108 134.800 204.517 1.00 93.16 C
ATOM 633 CG LEU A 161 164.345 134.421 203.704 1.00 93.16 C
ATOM 634 CD1 LEU A 161 164.021 133.290 202.748 1.00 93.16 C
ATOM 635 CD2 LEU A 161 164.864 135.626 202.945 1.00 93.16 C
ATOM 636 N LEU A 162 165.206 136.875 206.395 1.00 92.08 N
ATOM 637 CA LEU A 162 165.885 138.157 206.506 1.00 92.08 C
ATOM 638 C LEU A 162 166.793 138.465 205.324 1.00 92.08 C
ATOM 639 O LEU A 162 167.460 139.504 205.333 1.00 92.08 O
ATOM 640 CB LEU A 162 166.700 138.206 207.801 1.00 92.08 C
ATOM 641 CG LEU A 162 165.980 137.744 209.066 1.00 92.08 C
ATOM 642 CD1 LEU A 162 166.964 137.570 210.207 1.00 92.08 C
ATOM 643 CD2 LEU A 162 164.893 138.730 209.444 1.00 92.08 C

```
ATOM   644  N   GLY A 163     166.842 137.606 204.322  1.00 92.94           N
ATOM   645  CA  GLY A 163     167.661 137.863 203.153  1.00 92.94           C
ATOM   646  C   GLY A 163     168.137 136.572 202.525  1.00 92.94           C
ATOM   647  O   GLY A 163     167.932 135.479 203.046  1.00 92.94           O
ATOM   648  N   SER A 164     168.786 136.722 201.373  1.00 89.54           N
ATOM   649  CA  SER A 164     169.351 135.601 200.635  1.00 89.54           C
ATOM   650  C   SER A 164     170.093 136.156 199.429  1.00 89.54           C
ATOM   651  O   SER A 164     169.856 137.290 199.004  1.00 89.54           O
ATOM   652  CB  SER A 164     168.277 134.609 200.191  1.00 89.54           C
ATOM   653  OG  SER A 164     167.722 134.989 198.945  1.00 89.54           O
ATOM   654  N   ASN A 165     170.993 135.344 198.883  1.00 84.09           N
ATOM   655  CA  ASN A 165     171.761 135.729 197.708  1.00 84.09           C
ATOM   656  C   ASN A 165     172.271 134.468 197.029  1.00 84.09           C
ATOM   657  O   ASN A 165     172.166 133.364 197.568  1.00 84.09           O
ATOM   658  CB  ASN A 165     172.916 136.663 198.077  1.00 84.09           C
ATOM   659  CG  ASN A 165     173.941 136.000 198.971  1.00 84.09           C
ATOM   660  OD1 ASN A 165     173.814 134.827 199.320  1.00 84.09           O
ATOM   661  ND2 ASN A 165     174.969 136.749 199.343  1.00 84.09           N
ATOM   662  N   THR A 166     172.833 134.647 195.837  1.00 77.37           N
ATOM   663  CA  THR A 166     173.363 133.546 195.048  1.00 77.37           C
ATOM   664  C   THR A 166     174.785 133.873 194.613  1.00 77.37           C
ATOM   665  O   THR A 166     175.264 134.998 194.770  1.00 77.37           O
ATOM   666  CB  THR A 166     172.484 133.260 193.825  1.00 77.37           C
ATOM   667  OG1 THR A 166     171.105 133.349 194.200  1.00 77.37           O
ATOM   668  CG2 THR A 166     172.755 131.868 193.298  1.00 77.37           C
ATOM   669  N   GLU A 167     175.465 132.871 194.064  1.00 73.98           N
ATOM   670  CA  GLU A 167     176.839 133.048 193.613  1.00 73.98           C
ATOM   671  C   GLU A 167     177.225 131.873 192.729  1.00 73.98           C
ATOM   672  O   GLU A 167     176.987 130.720 193.095  1.00 73.98           O
ATOM   673  CB  GLU A 167     177.793 133.163 194.801  1.00 73.98           C
ATOM   674  CG  GLU A 167     179.238 133.355 194.401  1.00 73.98           C
ATOM   675  CD  GLU A 167     179.978 134.284 195.336  1.00 73.98           C
ATOM   676  OE1 GLU A 167     181.166 134.022 195.618  1.00 73.98           O
ATOM   677  OE2 GLU A 167     179.374 135.279 195.787  1.00 73.98           O
```

ATOM 678 N TYR A 168 177.821 132.171 191.577 1.00 62.72 N
ATOM 679 CA TYR A 168 178.203 131.169 190.591 1.00 62.72 C
ATOM 680 C TYR A 168 179.714 130.993 190.591 1.00 62.72 C
ATOM 681 O TYR A 168 180.460 131.970 190.686 1.00 62.72 O
ATOM 682 CB TYR A 168 177.734 131.571 189.193 1.00 62.72 C
ATOM 683 CG TYR A 168 176.261 131.875 189.106 1.00 62.72 C
ATOM 684 CD1 TYR A 168 175.765 133.109 189.487 1.00 62.72 C
ATOM 685 CD2 TYR A 168 175.365 130.928 188.640 1.00 62.72 C
ATOM 686 CE1 TYR A 168 174.419 133.390 189.409 1.00 62.72 C
ATOM 687 CE2 TYR A 168 174.019 131.198 188.559 1.00 62.72 C
ATOM 688 CZ TYR A 168 173.552 132.430 188.944 1.00 62.72 C
ATOM 689 OH TYR A 168 172.208 132.702 188.864 1.00 62.72 O
ATOM 690 N VAL A 169 180.163 129.747 190.475 1.00 60.29 N
ATOM 691 CA VAL A 169 181.589 129.447 190.488 1.00 60.29 C
ATOM 692 C VAL A 169 181.837 128.225 189.617 1.00 60.29 C
ATOM 693 O VAL A 169 180.993 127.329 189.533 1.00 60.29 O
ATOM 694 CB VAL A 169 182.101 129.224 191.925 1.00 60.29 C
ATOM 695 CG1 VAL A 169 181.641 127.880 192.446 1.00 60.29 C
ATOM 696 CG2 VAL A 169 183.608 129.335 191.965 1.00 60.29 C
ATOM 697 N ALA A 170 183.016 128.189 188.965 1.00 52.81 N
ATOM 698 CA ALA A 170 183.379 127.137 188.019 1.00 52.81 C
ATOM 699 C ALA A 170 184.092 126.000 188.738 1.00 52.81 C
ATOM 700 O ALA A 170 185.037 126.251 189.492 1.00 52.81 O
ATOM 701 CB ALA A 170 184.275 127.685 186.920 1.00 52.81 C
ATOM 702 N PRO A 171 183.685 124.753 188.527 1.00 51.22 N
ATOM 703 CA PRO A 171 184.254 123.642 189.293 1.00 51.22 C
ATOM 704 C PRO A 171 185.736 123.484 189.013 1.00 51.22 C
ATOM 705 O PRO A 171 186.291 124.168 188.142 1.00 51.22 O
ATOM 706 CB PRO A 171 183.462 122.425 188.796 1.00 51.22 C
ATOM 707 CG PRO A 171 182.889 122.837 187.499 1.00 51.22 C
ATOM 708 CD PRO A 171 182.651 124.304 187.583 1.00 51.22 C
ATOM 709 N PRO A 172 186.413 122.597 189.737 1.00 63.84 N
ATOM 710 CA PRO A 172 187.829 122.341 189.478 1.00 63.84 C
ATOM 711 C PRO A 172 188.023 121.281 188.409 1.00 63.84 C

ATOM 712 O PRO A 172 187.185 120.403 188.199 1.00 63.84 O
ATOM 713 CB PRO A 172 188.332 121.846 190.839 1.00 63.84 C
ATOM 714 CG PRO A 172 187.163 121.114 191.391 1.00 63.84 C
ATOM 715 CD PRO A 172 185.919 121.814 190.882 1.00 63.84 C
ATOM 716 N MET A 173 189.169 121.374 187.734 1.00 69.89 N
ATOM 717 CA MET A 173 189.425 120.536 186.568 1.00 69.89 C
ATOM 718 C MET A 173 189.155 119.063 186.856 1.00 69.89 C
ATOM 719 O MET A 173 188.388 118.411 186.140 1.00 69.89 O
ATOM 720 CB MET A 173 190.862 120.740 186.089 1.00 69.89 C
ATOM 721 CG MET A 173 191.093 120.366 184.636 1.00 69.89 C
ATOM 722 SD MET A 173 189.941 121.165 183.502 1.00 69.89 S
ATOM 723 CE MET A 173 190.068 122.868 184.030 1.00 69.89 C
ATOM 724 N TRP A 174 189.765 118.522 187.913 1.00 82.32 N
ATOM 725 CA TRP A 174 189.714 117.080 188.133 1.00 82.32 C
ATOM 726 C TRP A 174 188.292 116.539 188.203 1.00 82.32 C
ATOM 727 O TRP A 174 188.103 115.320 188.134 1.00 82.32 O
ATOM 728 CB TRP A 174 190.469 116.701 189.410 1.00 82.32 C
ATOM 729 CG TRP A 174 189.764 117.061 190.681 1.00 82.32 C
ATOM 730 CD1 TRP A 174 188.776 116.352 191.302 1.00 82.32 C
ATOM 731 CD2 TRP A 174 190.009 118.207 191.500 1.00 82.32 C
ATOM 732 NE1 TRP A 174 188.383 116.993 192.450 1.00 82.32 N
ATOM 733 CE2 TRP A 174 189.126 118.135 192.595 1.00 82.32 C
ATOM 734 CE3 TRP A 174 190.885 119.291 191.412 1.00 82.32 C
ATOM 735 CZ2 TRP A 174 189.095 119.104 193.591 1.00 82.32 C
ATOM 736 CZ3 TRP A 174 190.853 120.251 192.401 1.00 82.32 C
ATOM 737 CH2 TRP A 174 189.965 120.153 193.477 1.00 82.32 C
ATOM 738 N GLU A 175 187.288 117.404 188.343 1.00 70.74 N
ATOM 739 CA GLU A 175 185.906 116.947 188.394 1.00 70.74 C
ATOM 740 C GLU A 175 185.220 116.977 187.037 1.00 70.74 C
ATOM 741 O GLU A 175 184.259 116.225 186.823 1.00 70.74 O
ATOM 742 CB GLU A 175 185.102 117.786 189.388 1.00 70.74 C
ATOM 743 CG GLU A 175 183.764 117.172 189.741 1.00 70.74 C
ATOM 744 CD GLU A 175 183.027 117.951 190.801 1.00 70.74 C
ATOM 745 OE1 GLU A 175 183.392 119.120 191.041 1.00 70.74 O

ATOM 746 OE2 GLU A 175 182.080 117.395 191.394 1.00 70.74 O
ATOM 747 N ILE A 176 185.672 117.839 186.123 1.00 61.03 N
ATOM 748 CA ILE A 176 185.198 117.779 184.749 1.00 61.03 C
ATOM 749 C ILE A 176 185.660 116.518 184.044 1.00 61.03 C
ATOM 750 O ILE A 176 185.201 116.233 182.934 1.00 61.03 O
ATOM 751 CB ILE A 176 185.654 119.023 183.966 1.00 61.03 C
ATOM 752 CG1 ILE A 176 185.199 120.287 184.683 1.00 61.03 C
ATOM 753 CG2 ILE A 176 185.081 119.007 182.575 1.00 61.03 C
ATOM 754 CD1 ILE A 176 185.367 121.532 183.861 1.00 61.03 C
ATOM 755 N HIS A 177 186.556 115.750 184.665 1.00 67.72 N
ATOM 756 CA HIS A 177 186.947 114.452 184.140 1.00 67.72 C
ATOM 757 C HIS A 177 186.054 113.328 184.638 1.00 67.72 C
ATOM 758 O HIS A 177 186.028 112.257 184.022 1.00 67.72 O
ATOM 759 CB HIS A 177 188.401 114.144 184.505 1.00 67.72 C
ATOM 760 CG HIS A 177 189.398 114.978 183.765 1.00 67.72 C
ATOM 761 ND1 HIS A 177 189.044 115.812 182.727 1.00 67.72 N
ATOM 762 CD2 HIS A 177 190.736 115.110 183.914 1.00 67.72 C
ATOM 763 CE1 HIS A 177 190.121 116.421 182.268 1.00 67.72 C
ATOM 764 NE2 HIS A 177 191.162 116.014 182.971 1.00 67.72 N
ATOM 765 N HIS A 178 185.326 113.542 185.733 1.00 65.73 N
ATOM 766 CA HIS A 178 184.304 112.602 186.173 1.00 65.73 C
ATOM 767 C HIS A 178 182.929 112.929 185.624 1.00 65.73 C
ATOM 768 O HIS A 178 182.145 112.011 185.364 1.00 65.73 O
ATOM 769 CB HIS A 178 184.235 112.557 187.700 1.00 65.73 C
ATOM 770 CG HIS A 178 185.100 111.499 188.307 1.00 65.73 C
ATOM 771 ND1 HIS A 178 184.742 110.169 188.325 1.00 65.73 N
ATOM 772 CD2 HIS A 178 186.310 111.572 188.910 1.00 65.73 C
ATOM 773 CE1 HIS A 178 185.693 109.468 188.917 1.00 65.73 C
ATOM 774 NE2 HIS A 178 186.655 110.296 189.282 1.00 65.73 N
ATOM 775 N ILE A 179 182.617 114.211 185.438 1.00 59.23 N
ATOM 776 CA ILE A 179 181.368 114.566 184.772 1.00 59.23 C
ATOM 777 C ILE A 179 181.329 113.969 183.372 1.00 59.23 C
ATOM 778 O ILE A 179 180.290 113.473 182.920 1.00 59.23 O
ATOM 779 CB ILE A 179 181.187 116.093 184.737 1.00 59.23 C

ATOM 780 CG1 ILE A 179 181.063 116.648 186.150 1.00 59.23 C
ATOM 781 CG2 ILE A 179 179.964 116.461 183.922 1.00 59.23 C
ATOM 782 CD1 ILE A 179 180.532 118.058 186.194 1.00 59.23 C
ATOM 783 N ASN A 180 182.456 114.004 182.665 1.00 57.86 N
ATOM 784 CA ASN A 180 182.547 113.538 181.289 1.00 57.86 C
ATOM 785 C ASN A 180 182.813 112.044 181.178 1.00 57.86 C
ATOM 786 O ASN A 180 183.082 111.560 180.077 1.00 57.86 O
ATOM 787 CB ASN A 180 183.645 114.303 180.548 1.00 57.86 C
ATOM 788 CG ASN A 180 183.201 115.675 180.105 1.00 57.86 C
ATOM 789 OD1 ASN A 180 182.019 115.909 179.869 1.00 57.86 O
ATOM 790 ND2 ASN A 180 184.148 116.592 179.989 1.00 57.86 N
ATOM 791 N SER A 181 182.760 111.305 182.283 1.00 59.18 N
ATOM 792 CA SER A 181 182.969 109.865 182.220 1.00 59.18 C
ATOM 793 C SER A 181 181.963 109.056 183.021 1.00 59.18 C
ATOM 794 O SER A 181 181.894 107.841 182.823 1.00 59.18 O
ATOM 795 CB SER A 181 184.382 109.510 182.696 1.00 59.18 C
ATOM 796 OG SER A 181 185.334 110.390 182.128 1.00 59.18 O
ATOM 797 N HIS A 182 181.192 109.669 183.918 1.00 64.81 N
ATOM 798 CA HIS A 182 180.139 108.954 184.624 1.00 64.81 C
ATOM 799 C HIS A 182 178.836 109.729 184.741 1.00 64.81 C
ATOM 800 O HIS A 182 177.825 109.125 185.108 1.00 64.81 O
ATOM 801 CB HIS A 182 180.604 108.562 186.033 1.00 64.81 C
ATOM 802 CG HIS A 182 181.874 107.772 186.055 1.00 64.81 C
ATOM 803 ND1 HIS A 182 183.017 108.219 186.680 1.00 64.81 N
ATOM 804 CD2 HIS A 182 182.178 106.560 185.536 1.00 64.81 C
ATOM 805 CE1 HIS A 182 183.973 107.318 186.542 1.00 64.81 C
ATOM 806 NE2 HIS A 182 183.490 106.302 185.851 1.00 64.81 N
ATOM 807 N SER A 183 178.813 111.029 184.445 1.00 65.46 N
ATOM 808 CA SER A 183 177.624 111.853 184.648 1.00 65.46 C
ATOM 809 C SER A 183 177.279 111.952 186.134 1.00 65.46 C
ATOM 810 O SER A 183 176.152 111.685 186.548 1.00 65.46 O
ATOM 811 CB SER A 183 176.438 111.315 183.847 1.00 65.46 C
ATOM 812 OG SER A 183 176.729 111.286 182.464 1.00 65.46 O
ATOM 813 N GLN A 184 178.268 112.340 186.942 1.00 70.92 N

ATOM 814 CA GLN A 184 178.098 112.358 188.394 1.00 70.92 C
ATOM 815 C GLN A 184 178.941 113.491 188.970 1.00 70.92 C
ATOM 816 O GLN A 184 180.149 113.328 189.159 1.00 70.92 O
ATOM 817 CB GLN A 184 178.497 111.022 189.001 1.00 70.92 C
ATOM 818 CG GLN A 184 177.719 109.841 188.478 1.00 70.92 C
ATOM 819 CD GLN A 184 178.062 108.567 189.212 1.00 70.92 C
ATOM 820 OE1 GLN A 184 179.082 108.489 189.894 1.00 70.92 O
ATOM 821 NE2 GLN A 184 177.208 107.560 189.082 1.00 70.92 N
ATOM 822 N CYS A 185 178.304 114.622 189.261 1.00 74.83 N
ATOM 823 CA CYS A 185 178.988 115.665 190.007 1.00 74.83 C
ATOM 824 C CYS A 185 179.306 115.165 191.414 1.00 74.83 C
ATOM 825 O CYS A 185 178.873 114.092 191.835 1.00 74.83 O
ATOM 826 CB CYS A 185 178.139 116.933 190.075 1.00 74.83 C
ATOM 827 SG CYS A 185 177.617 117.590 188.477 1.00 74.83 S
ATOM 828 N TYR A 186 180.082 115.956 192.143 1.00 85.13 N
ATOM 829 CA TYR A 186 180.339 115.667 193.544 1.00 85.13 C
ATOM 830 C TYR A 186 179.399 116.473 194.435 1.00 85.13 C
ATOM 831 O TYR A 186 178.637 117.325 193.975 1.00 85.13 O
ATOM 832 CB TYR A 186 181.796 115.953 193.900 1.00 85.13 C
ATOM 833 CG TYR A 186 182.761 114.930 193.358 1.00 85.13 C
ATOM 834 CD1 TYR A 186 182.318 113.685 192.941 1.00 85.13 C
ATOM 835 CD2 TYR A 186 184.115 115.210 193.259 1.00 85.13 C
ATOM 836 CE1 TYR A 186 183.196 112.747 192.446 1.00 85.13 C
ATOM 837 CE2 TYR A 186 185.000 114.280 192.762 1.00 85.13 C
ATOM 838 CZ TYR A 186 184.536 113.050 192.357 1.00 85.13 C
ATOM 839 OH TYR A 186 185.418 112.119 191.860 1.00 85.13 O
ATOM 840 N SER A 187 179.463 116.193 195.732 1.00 95.73 N
ATOM 841 CA SER A 187 178.570 116.793 196.713 1.00 95.73 C
ATOM 842 C SER A 187 179.349 117.554 197.777 1.00 95.73 C
ATOM 843 O SER A 187 179.055 117.461 198.969 1.00 95.73 O
ATOM 844 CB SER A 187 177.686 115.729 197.358 1.00 95.73 C
ATOM 845 OG SER A 187 178.469 114.675 197.887 1.00 95.73 O
ATOM 846 N SER A 188 180.358 118.316 197.362 1.00 98.36 N
ATOM 847 CA SER A 188 181.131 119.107 198.308 1.00 98.36 C

ATOM 848 C SER A 188 182.001 120.095 197.547 1.00 98.36 C
ATOM 849 O SER A 188 182.501 119.785 196.464 1.00 98.36 O
ATOM 850 CB SER A 188 182.000 118.219 199.201 1.00 98.36 C
ATOM 851 OG SER A 188 182.942 117.496 198.431 1.00 98.36 O
ATOM 852 N TYR A 189 182.180 121.276 198.130 1.00 99.21 N
ATOM 853 CA TYR A 189 182.961 122.347 197.535 1.00 99.21 C
ATOM 854 C TYR A 189 184.142 122.692 198.432 1.00 99.21 C
ATOM 855 O TYR A 189 184.182 122.332 199.611 1.00 99.21 O
ATOM 856 CB TYR A 189 182.099 123.592 197.301 1.00 99.21 C
ATOM 857 CG TYR A 189 182.706 124.569 196.332 1.00 99.21 C
ATOM 858 CD1 TYR A 189 183.487 124.127 195.278 1.00 99.21 C
ATOM 859 CD2 TYR A 189 182.496 125.929 196.465 1.00 99.21 C
ATOM 860 CE1 TYR A 189 184.045 125.010 194.389 1.00 99.21 C
ATOM 861 CE2 TYR A 189 183.050 126.822 195.577 1.00 99.21 C
ATOM 862 CZ TYR A 189 183.824 126.356 194.542 1.00 99.21 C
ATOM 863 OH TYR A 189 184.383 127.236 193.651 1.00 99.21 O
ATOM 864 N SER A 190 185.112 123.400 197.857 1.00110.74 N
ATOM 865 CA SER A 190 186.311 123.777 198.601 1.00110.74 C
ATOM 866 C SER A 190 186.899 125.022 197.952 1.00110.74 C
ATOM 867 O SER A 190 187.455 124.940 196.853 1.00110.74 O
ATOM 868 CB SER A 190 187.318 122.635 198.614 1.00110.74 C
ATOM 869 OG SER A 190 186.796 121.505 199.290 1.00110.74 O
ATOM 870 N ARG A 191 186.777 126.160 198.626 1.00119.08 N
ATOM 871 CA ARG A 191 187.303 127.423 198.139 1.00119.08 C
ATOM 872 C ARG A 191 188.589 127.775 198.882 1.00119.08 C
ATOM 873 O ARG A 191 189.053 127.047 199.761 1.00119.08 O
ATOM 874 CB ARG A 191 186.262 128.532 198.298 1.00119.08 C
ATOM 875 CG ARG A 191 185.881 128.806 199.743 1.00119.08 C
ATOM 876 CD ARG A 191 185.115 130.110 199.887 1.00119.08 C
ATOM 877 NE ARG A 191 183.802 130.064 199.253 1.00119.08 N
ATOM 878 CZ ARG A 191 183.471 130.756 198.168 1.00119.08 C
ATOM 879 NH1 ARG A 191 184.362 131.548 197.589 1.00119.08 N
ATOM 880 NH2 ARG A 191 182.251 130.657 197.662 1.00119.08 N
ATOM 881 N VAL A 192 189.174 128.913 198.513 1.00133.53 N

ATOM 882 CA VAL A 192 190.334 129.461 199.209 1.00133.53 C
ATOM 883 C VAL A 192 190.414 130.951 198.905 1.00133.53 C
ATOM 884 O VAL A 192 190.339 131.358 197.741 1.00133.53 O
ATOM 885 CB VAL A 192 191.628 128.736 198.797 1.00133.53 C
ATOM 886 CG1 VAL A 192 191.937 128.995 197.332 1.00133.53 C
ATOM 887 CG2 VAL A 192 192.788 129.180 199.669 1.00133.53 C
ATOM 888 N ILE A 193 190.574 131.778 199.938 1.00140.69 N
ATOM 889 CA ILE A 193 190.616 133.232 199.777 1.00140.69 C
ATOM 890 C ILE A 193 191.906 133.735 200.422 1.00140.69 C
ATOM 891 O ILE A 193 191.929 134.134 201.590 1.00140.69 O
ATOM 892 CB ILE A 193 189.386 133.925 200.373 1.00140.69 C
ATOM 893 CG1 ILE A 193 189.430 135.427 200.089 1.00140.69 C
ATOM 894 CG2 ILE A 193 189.261 133.631 201.866 1.00140.69 C
ATOM 895 CD1 ILE A 193 189.442 135.764 198.616 1.00140.69 C
ATOM 896 N ALA A 194 192.993 133.714 199.654 1.00143.94 N
ATOM 897 CA ALA A 194 194.206 134.485 199.904 1.00143.94 C
ATOM 898 C ALA A 194 194.933 134.114 201.192 1.00143.94 C
ATOM 899 O ALA A 194 196.074 134.540 201.397 1.00143.94 O
ATOM 900 CB ALA A 194 193.875 135.979 199.920 1.00143.94 C
ATOM 901 N GLY A 195 194.306 133.330 202.067 1.00142.34 N
ATOM 902 CA GLY A 195 195.028 132.844 203.226 1.00142.34 C
ATOM 903 C GLY A 195 194.613 131.485 203.748 1.00142.34 C
ATOM 904 O GLY A 195 195.232 130.966 204.682 1.00142.34 O
ATOM 905 N THR A 196 193.578 130.891 203.157 1.00139.01 N
ATOM 906 CA THR A 196 193.058 129.631 203.673 1.00139.01 C
ATOM 907 C THR A 196 191.863 129.147 202.862 1.00139.01 C
ATOM 908 O THR A 196 191.367 129.861 201.985 1.00139.01 O
ATOM 909 CB THR A 196 192.664 129.773 205.146 1.00139.01 C
ATOM 910 OG1 THR A 196 192.334 128.486 205.681 1.00139.01 O
ATOM 911 CG2 THR A 196 191.466 130.699 205.289 1.00139.01 C
ATOM 912 N VAL A 197 191.387 127.943 203.165 1.00131.92 N
ATOM 913 CA VAL A 197 190.234 127.349 202.500 1.00131.92 C
ATOM 914 C VAL A 197 189.030 127.474 203.422 1.00131.92 C
ATOM 915 O VAL A 197 189.134 127.224 204.629 1.00131.92 O

ATOM 916 CB VAL A 197 190.494 125.877 202.134 1.00131.92 C
ATOM 917 CG1 VAL A 197 189.181 125.141 201.918 1.00131.92 C
ATOM 918 CG2 VAL A 197 191.378 125.785 200.898 1.00131.92 C
ATOM 919 N PHE A 198 187.893 127.866 202.857 1.00127.80 N
ATOM 920 CA PHE A 198 186.618 127.902 203.567 1.00127.80 C
ATOM 921 C PHE A 198 185.736 126.835 202.924 1.00127.80 C
ATOM 922 O PHE A 198 184.959 127.114 202.010 1.00127.80 O
ATOM 923 CB PHE A 198 185.980 129.288 203.506 1.00127.80 C
ATOM 924 CG PHE A 198 185.145 129.625 204.711 1.00127.80 C
ATOM 925 CD1 PHE A 198 185.710 129.660 205.975 1.00127.80 C
ATOM 926 CD2 PHE A 198 183.795 129.902 204.579 1.00127.80 C
ATOM 927 CE1 PHE A 198 184.945 129.966 207.083 1.00127.80 C
ATOM 928 CE2 PHE A 198 183.025 130.210 205.684 1.00127.80 C
ATOM 929 CZ PHE A 198 183.602 130.242 206.938 1.00127.80 C
ATOM 930 N VAL A 199 185.864 125.605 203.415 1.00120.26 N
ATOM 931 CA VAL A 199 185.209 124.455 202.800 1.00120.26 C
ATOM 932 C VAL A 199 183.706 124.565 203.034 1.00120.26 C
ATOM 933 O VAL A 199 183.229 124.418 204.162 1.00120.26 O
ATOM 934 CB VAL A 199 185.764 123.135 203.347 1.00120.26 C
ATOM 935 CG1 VAL A 199 185.704 123.122 204.866 1.00120.26 C
ATOM 936 CG2 VAL A 199 184.994 121.958 202.769 1.00120.26 C
ATOM 937 N ALA A 200 182.958 124.826 201.968 1.00114.44 N
ATOM 938 CA ALA A 200 181.507 124.833 202.024 1.00114.44 C
ATOM 939 C ALA A 200 180.994 123.411 201.802 1.00114.44 C
ATOM 940 O ALA A 200 181.763 122.447 201.777 1.00114.44 O
ATOM 941 CB ALA A 200 180.942 125.820 201.004 1.00114.44 C
ATOM 942 N TYR A 201 179.686 123.265 201.636 1.00110.29 N
ATOM 943 CA TYR A 201 179.080 121.949 201.501 1.00110.29 C
ATOM 944 C TYR A 201 177.730 122.103 200.806 1.00110.29 C
ATOM 945 O TYR A 201 177.427 123.159 200.241 1.00110.29 O
ATOM 946 CB TYR A 201 178.939 121.278 202.878 1.00110.29 C
ATOM 947 CG TYR A 201 180.131 120.458 203.317 1.00110.29 C
ATOM 948 CD1 TYR A 201 180.282 119.144 202.900 1.00110.29 C
ATOM 949 CD2 TYR A 201 181.091 120.990 204.165 1.00110.29 C

ATOM 950 CE1 TYR A 201 181.365 118.388 203.303 1.00110.29 C
ATOM 951 CE2 TYR A 201 182.177 120.242 204.572 1.00110.29 C
ATOM 952 CZ TYR A 201 182.309 118.941 204.139 1.00110.29 C
ATOM 953 OH TYR A 201 183.389 118.191 204.542 1.00110.29 O
ATOM 954 N HIS A 202 176.927 121.044 200.856 1.00107.29 N
ATOM 955 CA HIS A 202 175.496 121.107 200.594 1.00107.29 C
ATOM 956 C HIS A 202 174.860 121.709 201.838 1.00107.29 C
ATOM 957 O HIS A 202 175.547 122.382 202.613 1.00107.29 O
ATOM 958 CB HIS A 202 174.920 119.724 200.281 1.00107.29 C
ATOM 959 CG HIS A 202 173.709 119.757 199.400 1.00107.29 C
ATOM 960 ND1 HIS A 202 172.530 120.365 199.776 1.00107.29 N
ATOM 961 CD2 HIS A 202 173.492 119.254 198.161 1.00107.29 C
ATOM 962 CE1 HIS A 202 171.641 120.238 198.808 1.00107.29 C
ATOM 963 NE2 HIS A 202 172.199 119.568 197.817 1.00107.29 N
ATOM 964 N ARG A 203 173.563 121.509 202.049 1.00112.17 N
ATOM 965 CA ARG A 203 172.951 122.133 203.214 1.00112.17 C
ATOM 966 C ARG A 203 173.511 121.492 204.481 1.00112.17 C
ATOM 967 O ARG A 203 172.795 120.810 205.222 1.00112.17 O
ATOM 968 CB ARG A 203 171.429 121.995 203.168 1.00112.17 C
ATOM 969 CG ARG A 203 170.703 122.861 204.181 1.00112.17 C
ATOM 970 CD ARG A 203 169.265 122.398 204.345 1.00112.17 C
ATOM 971 NE ARG A 203 168.382 123.472 204.787 1.00112.17 N
ATOM 972 CZ ARG A 203 167.697 124.252 203.959 1.00112.17 C
ATOM 973 NH1 ARG A 203 167.806 124.082 202.649 1.00112.17 N
ATOM 974 NH2 ARG A 203 166.912 125.208 204.436 1.00112.17 N
ATOM 975 N ASP A 204 174.808 121.717 204.716 1.00118.90 N
ATOM 976 CA ASP A 204 175.543 121.317 205.912 1.00118.90 C
ATOM 977 C ASP A 204 175.241 119.889 206.359 1.00118.90 C
ATOM 978 O ASP A 204 175.138 119.613 207.559 1.00118.90 O
ATOM 979 CB ASP A 204 175.262 122.332 207.021 1.00118.90 C
ATOM 980 CG ASP A 204 175.719 123.725 206.646 1.00118.90 C
ATOM 981 OD1 ASP A 204 175.878 123.972 205.435 1.00118.90 O
ATOM 982 OD2 ASP A 204 175.973 124.555 207.541 1.00118.90 O
ATOM 983 N SER A 205 175.155 118.972 205.392 1.00120.40 N

ATOM 984 CA SER A 205 174.961 117.547 205.633 1.00120.40 C
ATOM 985 C SER A 205 176.271 116.783 205.755 1.00120.40 C
ATOM 986 O SER A 205 176.247 115.570 205.991 1.00120.40 O
ATOM 987 CB SER A 205 174.128 116.926 204.506 1.00120.40 C
ATOM 988 OG SER A 205 172.786 117.373 204.527 1.00120.40 O
ATOM 989 N TYR A 206 177.406 117.448 205.551 1.00121.88 N
ATOM 990 CA TYR A 206 178.717 116.857 205.816 1.00121.88 C
ATOM 991 C TYR A 206 178.950 115.593 204.991 1.00121.88 C
ATOM 992 O TYR A 206 179.784 114.754 205.338 1.00121.88 O
ATOM 993 CB TYR A 206 178.892 116.565 207.308 1.00121.88 C
ATOM 994 CG TYR A 206 178.693 117.769 208.208 1.00121.88 C
ATOM 995 CD1 TYR A 206 178.596 119.052 207.682 1.00121.88 C
ATOM 996 CD2 TYR A 206 178.611 117.622 209.586 1.00121.88 C
ATOM 997 CE1 TYR A 206 178.416 120.150 208.498 1.00121.88 C
ATOM 998 CE2 TYR A 206 178.433 118.716 210.411 1.00121.88 C
ATOM 999 CZ TYR A 206 178.337 119.976 209.862 1.00121.88 C
ATOM 1000 OH TYR A 206 178.160 121.065 210.683 1.00121.88 O
ATOM 1001 N GLU A 207 178.225 115.449 203.884 1.00114.22 N
ATOM 1002 CA GLU A 207 178.286 114.253 203.058 1.00114.22 C
ATOM 1003 C GLU A 207 179.002 114.544 201.745 1.00114.22 C
ATOM 1004 O GLU A 207 178.900 115.642 201.190 1.00114.22 O
ATOM 1005 CB GLU A 207 176.883 113.709 202.776 1.00114.22 C
ATOM 1006 CG GLU A 207 176.294 112.940 203.940 1.00114.22 C
ATOM 1007 CD GLU A 207 177.255 111.907 204.486 1.00114.22 C
ATOM 1008 OE1 GLU A 207 178.050 111.360 203.694 1.00114.22 O
ATOM 1009 OE2 GLU A 207 177.222 111.650 205.707 1.00114.22 O
ATOM 1010 N ASN A 208 179.727 113.544 201.250 1.00103.12 N
ATOM 1011 CA ASN A 208 180.504 113.670 200.020 1.00103.12 C
ATOM 1012 C ASN A 208 180.263 112.467 199.115 1.00103.12 C
ATOM 1013 O ASN A 208 181.194 111.830 198.622 1.00103.12 O
ATOM 1014 CB ASN A 208 181.990 113.830 200.324 1.00103.12 C
ATOM 1015 CG ASN A 208 182.778 114.310 199.123 1.00103.12 C
ATOM 1016 OD1 ASN A 208 183.010 113.559 198.177 1.00103.12 O
ATOM 1017 ND2 ASN A 208 183.210 115.561 199.163 1.00103.12 N

ATOM 1018 N LYS A 209 178.997 112.137 198.894 1.00 96.60 N
ATOM 1019 CA LYS A 209 178.637 111.056 197.992 1.00 96.60 C
ATOM 1020 C LYS A 209 178.450 111.620 196.584 1.00 96.60 C
ATOM 1021 O LYS A 209 178.786 112.773 196.304 1.00 96.60 O
ATOM 1022 CB LYS A 209 177.391 110.335 198.501 1.00 96.60 C
ATOM 1023 CG LYS A 209 177.286 110.270 200.016 1.00 96.60 C
ATOM 1024 CD LYS A 209 178.571 109.746 200.642 1.00 96.60 C
ATOM 1025 CE LYS A 209 178.898 108.340 200.163 1.00 96.60 C
ATOM 1026 NZ LYS A 209 179.905 107.675 201.036 1.00 96.60 N
ATOM 1027 N THR A 210 177.910 110.810 195.682 1.00 84.89 N
ATOM 1028 CA THR A 210 177.737 111.196 194.291 1.00 84.89 C
ATOM 1029 C THR A 210 176.284 111.560 194.006 1.00 84.89 C
ATOM 1030 O THR A 210 175.397 111.405 194.848 1.00 84.89 O
ATOM 1031 CB THR A 210 178.192 110.067 193.364 1.00 84.89 C
ATOM 1032 OG1 THR A 210 177.375 108.911 193.583 1.00 84.89 O
ATOM 1033 CG2 THR A 210 179.641 109.712 193.639 1.00 84.89 C
ATOM 1034 N MET A 211 176.049 112.053 192.791 1.00 80.27 N
ATOM 1035 CA MET A 211 174.713 112.452 192.370 1.00 80.27 C
ATOM 1036 C MET A 211 174.435 111.994 190.944 1.00 80.27 C
ATOM 1037 O MET A 211 175.200 111.208 190.379 1.00 80.27 O
ATOM 1038 CB MET A 211 174.553 113.967 192.477 1.00 80.27 C
ATOM 1039 CG MET A 211 174.848 114.527 193.854 1.00 80.27 C
ATOM 1040 SD MET A 211 173.389 114.622 194.904 1.00 80.27 S
ATOM 1041 CE MET A 211 173.874 115.931 196.025 1.00 80.27 C
ATOM 1042 N GLN A 212 173.341 112.473 190.358 1.00 71.09 N
ATOM 1043 CA GLN A 212 173.009 112.196 188.969 1.00 71.09 C
ATOM 1044 C GLN A 212 172.528 113.484 188.319 1.00 71.09 C
ATOM 1045 O GLN A 212 172.493 114.544 188.946 1.00 71.09 O
ATOM 1046 CB GLN A 212 171.943 111.104 188.847 1.00 71.09 C
ATOM 1047 CG GLN A 212 172.396 109.740 189.316 1.00 71.09 C
ATOM 1048 CD GLN A 212 173.533 109.193 188.487 1.00 71.09 C
ATOM 1049 OE1 GLN A 212 174.665 109.084 188.956 1.00 71.09 O
ATOM 1050 NE2 GLN A 212 173.239 108.847 187.241 1.00 71.09 N
ATOM 1051 N LEU A 213 172.157 113.390 187.046 1.00 58.95 N

ATOM 1052 CA LEU A 213 171.672 114.537 186.297 1.00 58.95 C
ATOM 1053 C LEU A 213 170.352 114.196 185.617 1.00 58.95 C
ATOM 1054 O LEU A 213 170.076 113.033 185.315 1.00 58.95 O
ATOM 1055 CB LEU A 213 172.708 114.995 185.269 1.00 58.95 C
ATOM 1056 CG LEU A 213 173.986 115.583 185.870 1.00 58.95 C
ATOM 1057 CD1 LEU A 213 174.972 114.486 186.198 1.00 58.95 C
ATOM 1058 CD2 LEU A 213 174.611 116.588 184.934 1.00 58.95 C
ATOM 1059 N MET A 214 169.528 115.225 185.390 1.00 58.72 N
ATOM 1060 CA MET A 214 168.184 115.068 184.843 1.00 58.72 C
ATOM 1061 C MET A 214 167.732 116.363 184.183 1.00 58.72 C
ATOM 1062 O MET A 214 168.065 117.447 184.679 1.00 58.72 O
ATOM 1063 CB MET A 214 167.184 114.672 185.933 1.00 58.72 C
ATOM 1064 CG MET A 214 167.712 113.653 186.930 1.00 58.72 C
ATOM 1065 SD MET A 214 166.777 113.591 188.469 1.00 58.72 S
ATOM 1066 CE MET A 214 166.901 115.289 189.016 1.00 58.72 C
ATOM 1067 N PRO A 215 166.972 116.291 183.092 1.00 51.70 N
ATOM 1068 CA PRO A 215 166.597 117.513 182.364 1.00 51.70 C
ATOM 1069 C PRO A 215 165.838 118.489 183.251 1.00 51.70 C
ATOM 1070 O PRO A 215 165.068 118.085 184.123 1.00 51.70 O
ATOM 1071 CB PRO A 215 165.720 116.988 181.224 1.00 51.70 C
ATOM 1072 CG PRO A 215 166.092 115.542 181.092 1.00 51.70 C
ATOM 1073 CD PRO A 215 166.419 115.081 182.471 1.00 51.70 C
ATOM 1074 N ASP A 216 166.068 119.788 183.033 1.00 56.42 N
ATOM 1075 CA ASP A 216 165.608 120.793 184.002 1.00 56.42 C
ATOM 1076 C ASP A 216 164.177 121.286 183.784 1.00 56.42 C
ATOM 1077 O ASP A 216 163.250 120.819 184.452 1.00 56.42 O
ATOM 1078 CB ASP A 216 166.584 121.969 183.981 1.00 56.42 C
ATOM 1079 CG ASP A 216 166.482 122.833 185.213 1.00 56.42 C
ATOM 1080 OD1 ASP A 216 167.090 122.473 186.240 1.00 56.42 O
ATOM 1081 OD2 ASP A 216 165.803 123.876 185.151 1.00 56.42 O
ATOM 1082 N CYS A 217 163.974 122.222 182.849 1.00 62.32 N
ATOM 1083 CA CYS A 217 162.613 122.679 182.565 1.00 62.32 C
ATOM 1084 C CYS A 217 162.348 123.135 181.132 1.00 62.32 C
ATOM 1085 O CYS A 217 161.191 123.154 180.702 1.00 62.32 O

ATOM 1086 CB CYS A 217 162.228 123.833 183.505 1.00 62.32 C
ATOM 1087 SG CYS A 217 161.334 123.394 185.033 1.00 62.32 S
ATOM 1088 N TYR A 218 163.383 123.502 180.380 1.00 57.21 N
ATOM 1089 CA TYR A 218 163.188 124.402 179.238 1.00 57.21 C
ATOM 1090 C TYR A 218 163.930 123.926 177.995 1.00 57.21 C
ATOM 1091 O TYR A 218 164.673 124.678 177.366 1.00 57.21 O
ATOM 1092 CB TYR A 218 163.625 125.824 179.584 1.00 57.21 C
ATOM 1093 CG TYR A 218 163.185 126.315 180.940 1.00 57.21 C
ATOM 1094 CD1 TYR A 218 161.905 126.798 181.142 1.00 57.21 C
ATOM 1095 CD2 TYR A 218 164.059 126.313 182.014 1.00 57.21 C
ATOM 1096 CE1 TYR A 218 161.504 127.254 182.379 1.00 57.21 C
ATOM 1097 CE2 TYR A 218 163.666 126.769 183.255 1.00 57.21 C
ATOM 1098 CZ TYR A 218 162.388 127.236 183.431 1.00 57.21 C
ATOM 1099 OH TYR A 218 161.993 127.689 184.666 1.00 57.21 O
ATOM 1100 N SER A 219 163.737 122.670 177.614 1.00 52.64 N
ATOM 1101 CA SER A 219 164.347 122.188 176.384 1.00 52.64 C
ATOM 1102 C SER A 219 163.905 123.036 175.197 1.00 52.64 C
ATOM 1103 O SER A 219 162.780 123.536 175.146 1.00 52.64 O
ATOM 1104 CB SER A 219 163.986 120.721 176.151 1.00 52.64 C
ATOM 1105 OG SER A 219 164.217 119.950 177.316 1.00 52.64 O
ATOM 1106 N ASN A 220 164.815 123.208 174.245 1.00 48.68 N
ATOM 1107 CA ASN A 220 164.572 123.854 172.961 1.00 48.68 C
ATOM 1108 C ASN A 220 165.092 122.953 171.847 1.00 48.68 C
ATOM 1109 O ASN A 220 165.421 121.784 172.061 1.00 48.68 O
ATOM 1110 CB ASN A 220 165.236 125.231 172.877 1.00 48.68 C
ATOM 1111 CG ASN A 220 164.565 126.260 173.743 1.00 48.68 C
ATOM 1112 OD1 ASN A 220 165.151 126.764 174.699 1.00 48.68 O
ATOM 1113 ND2 ASN A 220 163.330 126.596 173.405 1.00 48.68 N
ATOM 1114 N THR A 221 165.157 123.514 170.641 1.00 48.07 N
ATOM 1115 CA THR A 221 165.790 122.813 169.531 1.00 48.07 C
ATOM 1116 C THR A 221 167.309 122.892 169.630 1.00 48.07 C
ATOM 1117 O THR A 221 168.020 121.984 169.184 1.00 48.07 O
ATOM 1118 CB THR A 221 165.311 123.396 168.204 1.00 48.07 C
ATOM 1119 OG1 THR A 221 163.886 123.291 168.120 1.00 48.07 O

ATOM 1120 CG2 THR A 221 165.931 122.642 167.046 1.00 48.07 C
ATOM 1121 N HIS A 222 167.826 123.974 170.208 1.00 47.92 N
ATOM 1122 CA HIS A 222 169.262 124.237 170.239 1.00 47.92 C
ATOM 1123 C HIS A 222 169.738 124.530 171.661 1.00 47.92 C
ATOM 1124 O HIS A 222 170.680 125.292 171.876 1.00 47.92 O
ATOM 1125 CB HIS A 222 169.624 125.411 169.330 1.00 47.92 C
ATOM 1126 CG HIS A 222 169.145 125.268 167.919 1.00 47.92 C
ATOM 1127 ND1 HIS A 222 167.924 125.743 167.497 1.00 47.92 N
ATOM 1128 CD2 HIS A 222 169.737 124.732 166.826 1.00 47.92 C
ATOM 1129 CE1 HIS A 222 167.776 125.492 166.209 1.00 47.92 C
ATOM 1130 NE2 HIS A 222 168.863 124.879 165.778 1.00 47.92 N
ATOM 1131 N SER A 223 169.086 123.940 172.663 1.00 46.80 N
ATOM 1132 CA SER A 223 169.479 124.195 174.050 1.00 46.80 C
ATOM 1133 C SER A 223 168.875 123.115 174.942 1.00 46.80 C
ATOM 1134 O SER A 223 167.661 122.903 174.927 1.00 46.80 O
ATOM 1135 CB SER A 223 169.046 125.583 174.496 1.00 46.80 C
ATOM 1136 OG SER A 223 169.428 126.566 173.552 1.00 46.80 O
ATOM 1137 N THR A 224 169.725 122.442 175.709 1.00 44.17 N
ATOM 1138 CA THR A 224 169.300 121.494 176.726 1.00 44.17 C
ATOM 1139 C THR A 224 170.144 121.692 177.976 1.00 44.17 C
ATOM 1140 O THR A 224 171.315 122.069 177.894 1.00 44.17 O
ATOM 1141 CB THR A 224 169.428 120.055 176.229 1.00 44.17 C
ATOM 1142 OG1 THR A 224 168.721 119.914 174.992 1.00 44.17 O
ATOM 1143 CG2 THR A 224 168.851 119.091 177.241 1.00 44.17 C
ATOM 1144 N ARG A 225 169.550 121.439 179.138 1.00 46.82 N
ATOM 1145 CA ARG A 225 170.246 121.633 180.400 1.00 46.82 C
ATOM 1146 C ARG A 225 170.035 120.425 181.297 1.00 46.82 C
ATOM 1147 O ARG A 225 169.031 119.721 181.186 1.00 46.82 O
ATOM 1148 CB ARG A 225 169.776 122.900 181.118 1.00 46.82 C
ATOM 1149 CG ARG A 225 170.483 123.143 182.434 1.00 46.82 C
ATOM 1150 CD ARG A 225 170.419 124.598 182.841 1.00 46.82 C
ATOM 1151 NE ARG A 225 169.161 124.920 183.501 1.00 46.82 N
ATOM 1152 CZ ARG A 225 168.938 126.046 184.167 1.00 46.82 C
ATOM 1153 NH1 ARG A 225 167.763 126.258 184.739 1.00 46.82 N

ATOM 1154 NH2 ARG A 225 169.892 126.960 184.262 1.00 46.82 N
ATOM 1155 N TYR A 226 170.995 120.191 182.189 1.00 47.52 N
ATOM 1156 CA TYR A 226 170.943 119.064 183.108 1.00 47.52 C
ATOM 1157 C TYR A 226 171.382 119.525 184.488 1.00 47.52 C
ATOM 1158 O TYR A 226 172.439 120.144 184.626 1.00 47.52 O
ATOM 1159 CB TYR A 226 171.834 117.918 182.627 1.00 47.52 C
ATOM 1160 CG TYR A 226 171.453 117.377 181.272 1.00 47.52 C
ATOM 1161 CD1 TYR A 226 171.849 118.014 180.111 1.00 47.52 C
ATOM 1162 CD2 TYR A 226 170.705 116.221 181.155 1.00 47.52 C
ATOM 1163 CE1 TYR A 226 171.506 117.521 178.876 1.00 47.52 C
ATOM 1164 CE2 TYR A 226 170.359 115.721 179.925 1.00 47.52 C
ATOM 1165 CZ TYR A 226 170.761 116.375 178.789 1.00 47.52 C
ATOM 1166 OH TYR A 226 170.415 115.878 177.558 1.00 47.52 O
ATOM 1167 N VAL A 227 170.578 119.216 185.504 1.00 51.82 N
ATOM 1168 CA VAL A 227 170.826 119.659 186.869 1.00 51.82 C
ATOM 1169 C VAL A 227 170.687 118.471 187.806 1.00 51.82 C
ATOM 1170 O VAL A 227 169.982 117.504 187.509 1.00 51.82 O
ATOM 1171 CB VAL A 227 169.862 120.783 187.285 1.00 51.82 C
ATOM 1172 CG1 VAL A 227 169.871 121.883 186.252 1.00 51.82 C
ATOM 1173 CG2 VAL A 227 168.472 120.228 187.454 1.00 51.82 C
ATOM 1174 N THR A 228 171.358 118.550 188.952 1.00 59.73 N
ATOM 1175 CA THR A 228 171.387 117.433 189.886 1.00 59.73 C
ATOM 1176 C THR A 228 170.337 117.528 190.985 1.00 59.73 C
ATOM 1177 O THR A 228 170.073 116.524 191.654 1.00 59.73 O
ATOM 1178 CB THR A 228 172.771 117.312 190.526 1.00 59.73 C
ATOM 1179 OG1 THR A 228 172.908 116.021 191.128 1.00 59.73 O
ATOM 1180 CG2 THR A 228 172.953 118.372 191.587 1.00 59.73 C
ATOM 1181 N VAL A 229 169.735 118.697 191.191 1.00 68.98 N
ATOM 1182 CA VAL A 229 168.706 118.892 192.214 1.00 68.98 C
ATOM 1183 C VAL A 229 167.622 119.766 191.589 1.00 68.98 C
ATOM 1184 O VAL A 229 167.764 120.988 191.496 1.00 68.98 O
ATOM 1185 CB VAL A 229 169.256 119.526 193.493 1.00 68.98 C
ATOM 1186 CG1 VAL A 229 168.126 119.830 194.450 1.00 68.98 C
ATOM 1187 CG2 VAL A 229 170.263 118.605 194.143 1.00 68.98 C

ATOM 1188 N LYS A 230 166.521 119.144 191.169 1.00 82.59 N
ATOM 1189 CA LYS A 230 165.449 119.899 190.530 1.00 82.59 C
ATOM 1190 C LYS A 230 164.574 120.597 191.563 1.00 82.59 C
ATOM 1191 O LYS A 230 164.428 121.823 191.534 1.00 82.59 O
ATOM 1192 CB LYS A 230 164.609 118.978 189.646 1.00 82.59 C
ATOM 1193 CG LYS A 230 163.749 119.713 188.628 1.00 82.59 C
ATOM 1194 CD LYS A 230 162.882 118.747 187.843 1.00 82.59 C
ATOM 1195 CE LYS A 230 163.627 117.454 187.566 1.00 82.59 C
ATOM 1196 NZ LYS A 230 162.772 116.461 186.864 1.00 82.59 N
ATOM 1197 N ASP A 231 163.986 119.835 192.480 1.00 97.30 N
ATOM 1198 CA ASP A 231 163.192 120.430 193.543 1.00 97.30 C
ATOM 1199 C ASP A 231 164.100 121.197 194.501 1.00 97.30 C
ATOM 1200 O ASP A 231 165.326 121.211 194.367 1.00 97.30 O
ATOM 1201 CB ASP A 231 162.401 119.355 194.285 1.00 97.30 C
ATOM 1202 CG ASP A 231 163.296 118.364 195.001 1.00 97.30 C
ATOM 1203 OD1 ASP A 231 163.814 118.704 196.085 1.00 97.30 O
ATOM 1204 OD2 ASP A 231 163.481 117.243 194.482 1.00 97.30 O
ATOM 1205 N GLN A 232 163.490 121.846 195.483 1.00106.92 N
ATOM 1206 CA GLN A 232 164.215 122.606 196.488 1.00106.92 C
ATOM 1207 C GLN A 232 163.935 122.023 197.870 1.00106.92 C
ATOM 1208 O GLN A 232 163.025 121.212 198.058 1.00106.92 O
ATOM 1209 CB GLN A 232 163.841 124.088 196.426 1.00106.92 C
ATOM 1210 CG GLN A 232 164.515 124.843 195.296 1.00106.92 C
ATOM 1211 CD GLN A 232 163.931 124.502 193.941 1.00106.92 C
ATOM 1212 OE1 GLN A 232 163.022 123.680 193.834 1.00106.92 O
ATOM 1213 NE2 GLN A 232 164.449 125.136 192.896 1.00106.92 N
ATOM 1214 N TRP A 233 164.727 122.458 198.846 1.00116.94 N
ATOM 1215 CA TRP A 233 164.655 121.927 200.199 1.00116.94 C
ATOM 1216 C TRP A 233 164.601 123.085 201.182 1.00116.94 C
ATOM 1217 O TRP A 233 165.460 123.970 201.148 1.00116.94 O
ATOM 1218 CB TRP A 233 165.859 121.025 200.496 1.00116.94 C
ATOM 1219 CG TRP A 233 165.975 120.606 201.927 1.00116.94 C
ATOM 1220 CD1 TRP A 233 166.531 121.320 202.948 1.00116.94 C
ATOM 1221 CD2 TRP A 233 165.538 119.367 202.497 1.00116.94 C

ATOM 1222 NE1 TRP A 233 166.460 120.606 204.119 1.00116.94 N
ATOM 1223 CE2 TRP A 233 165.855 119.403 203.869 1.00116.94 C
ATOM 1224 CE3 TRP A 233 164.906 118.233 201.981 1.00116.94 C
ATOM 1225 CZ2 TRP A 233 165.562 118.349 204.731 1.00116.94 C
ATOM 1226 CZ3 TRP A 233 164.616 117.188 202.838 1.00116.94 C
ATOM 1227 CH2 TRP A 233 164.944 117.253 204.197 1.00116.94 C
ATOM 1228 N HIS A 234 163.593 123.076 202.054 1.00116.44 N
ATOM 1229 CA HIS A 234 163.433 124.133 203.051 1.00116.44 C
ATOM 1230 C HIS A 234 162.712 123.526 204.251 1.00116.44 C
ATOM 1231 O HIS A 234 161.492 123.337 204.214 1.00116.44 O
ATOM 1232 CB HIS A 234 162.673 125.321 202.479 1.00116.44 C
ATOM 1233 CG HIS A 234 163.544 126.306 201.762 1.00116.44 C
ATOM 1234 ND1 HIS A 234 164.278 125.974 200.644 1.00116.44 N
ATOM 1235 CD2 HIS A 234 163.804 127.612 202.009 1.00116.44 C
ATOM 1236 CE1 HIS A 234 164.951 127.034 200.230 1.00116.44 C
ATOM 1237 NE2 HIS A 234 164.680 128.041 201.041 1.00116.44 N
ATOM 1238 N SER A 235 163.467 123.234 205.305 1.00117.57 N
ATOM 1239 CA SER A 235 162.929 122.565 206.481 1.00117.57 C
ATOM 1240 C SER A 235 162.198 123.574 207.363 1.00117.57 C
ATOM 1241 O SER A 235 161.941 124.715 206.969 1.00117.57 O
ATOM 1242 CB SER A 235 164.044 121.851 207.238 1.00117.57 C
ATOM 1243 OG SER A 235 163.586 121.400 208.500 1.00117.57 O
ATOM 1244 N ARG A 236 161.847 123.154 208.579 1.00118.60 N
ATOM 1245 CA ARG A 236 161.099 123.998 209.507 1.00118.60 C
ATOM 1246 C ARG A 236 162.024 124.826 210.395 1.00118.60 C
ATOM 1247 O ARG A 236 161.962 126.059 210.390 1.00118.60 O
ATOM 1248 CB ARG A 236 160.170 123.132 210.367 1.00118.60 C
ATOM 1249 CG ARG A 236 159.558 123.858 211.558 1.00118.60 C
ATOM 1250 CD ARG A 236 158.407 124.758 211.137 1.00118.60 C
ATOM 1251 NE ARG A 236 158.832 125.793 210.200 1.00118.60 N
ATOM 1252 CZ ARG A 236 158.004 126.496 209.436 1.00118.60 C
ATOM 1253 NH1 ARG A 236 156.698 126.278 209.495 1.00118.60 N
ATOM 1254 NH2 ARG A 236 158.481 127.417 208.612 1.00118.60 N
ATOM 1255 N GLY A 237 162.882 124.162 211.158 1.00115.98 N

ATOM 1256 CA GLY A 237 163.735 124.831 212.119 1.00115.98 C
ATOM 1257 C GLY A 237 163.225 124.666 213.536 1.00115.98 C
ATOM 1258 O GLY A 237 162.324 123.874 213.829 1.00115.98 O
ATOM 1259 N SER A 238 163.826 125.439 214.434 1.00109.24 N
ATOM 1260 CA SER A 238 163.455 125.441 215.842 1.00109.24 C
ATOM 1261 C SER A 238 163.028 126.845 216.244 1.00109.24 C
ATOM 1262 O SER A 238 163.727 127.820 215.946 1.00109.24 O
ATOM 1263 CB SER A 238 164.614 124.961 216.717 1.00109.24 C
ATOM 1264 OG SER A 238 164.664 123.546 216.758 1.00109.24 O
ATOM 1265 N THR A 239 161.882 126.943 216.913 1.00104.29 N
ATOM 1266 CA THR A 239 161.344 128.242 217.294 1.00104.29 C
ATOM 1267 C THR A 239 162.369 129.043 218.085 1.00104.29 C
ATOM 1268 O THR A 239 163.027 128.523 218.989 1.00104.29 O
ATOM 1269 CB THR A 239 160.072 128.063 218.120 1.00104.29 C
ATOM 1270 OG1 THR A 239 160.302 127.087 219.143 1.00104.29 O
ATOM 1271 CG2 THR A 239 158.932 127.594 217.237 1.00104.29 C
ATOM 1272 N TRP A 240 162.502 130.323 217.738 1.00102.21 N
ATOM 1273 CA TRP A 240 163.391 131.240 218.449 1.00102.21 C
ATOM 1274 C TRP A 240 164.858 130.860 218.258 1.00102.21 C
ATOM 1275 O TRP A 240 165.647 130.901 219.201 1.00102.21 O
ATOM 1276 CB TRP A 240 163.046 131.302 219.939 1.00102.21 C
ATOM 1277 CG TRP A 240 161.674 131.819 220.233 1.00102.21 C
ATOM 1278 CD1 TRP A 240 160.845 132.478 219.377 1.00102.21 C
ATOM 1279 CD2 TRP A 240 160.971 131.721 221.476 1.00102.21 C
ATOM 1280 NE1 TRP A 240 159.667 132.797 220.009 1.00102.21 N
ATOM 1281 CE2 TRP A 240 159.721 132.342 221.299 1.00102.21 C
ATOM 1282 CE3 TRP A 240 161.278 131.167 222.722 1.00102.21 C
ATOM 1283 CZ2 TRP A 240 158.779 132.424 222.318 1.00102.21 C
ATOM 1284 CZ3 TRP A 240 160.343 131.250 223.732 1.00102.21 C
ATOM 1285 CH2 TRP A 240 159.108 131.873 223.525 1.00102.21 C
ATOM 1286 N LEU A 241 165.230 130.488 217.035 1.00 99.98 N
ATOM 1287 CA LEU A 241 166.607 130.115 216.738 1.00 99.98 C
ATOM 1288 C LEU A 241 167.014 130.699 215.395 1.00 99.98 C
ATOM 1289 O LEU A 241 166.309 130.526 214.397 1.00 99.98 O

ATOM 1290 CB LEU A 241 166.781 128.594 216.737 1.00 99.98 C
ATOM 1291 CG LEU A 241 166.900 127.979 218.132 1.00 99.98 C
ATOM 1292 CD1 LEU A 241 167.032 126.471 218.052 1.00 99.98 C
ATOM 1293 CD2 LEU A 241 168.074 128.580 218.881 1.00 99.98 C
ATOM 1294 N TYR A 242 168.153 131.385 215.381 1.00 98.34 N
ATOM 1295 CA TYR A 242 168.642 132.088 214.202 1.00 98.34 C
ATOM 1296 C TYR A 242 169.615 131.190 213.449 1.00 98.34 C
ATOM 1297 O TYR A 242 170.631 130.765 214.007 1.00 98.34 O
ATOM 1298 CB TYR A 242 169.313 133.393 214.623 1.00 98.34 C
ATOM 1299 CG TYR A 242 169.933 134.187 213.501 1.00 98.34 C
ATOM 1300 CD1 TYR A 242 169.153 134.964 212.660 1.00 98.34 C
ATOM 1301 CD2 TYR A 242 171.303 134.178 213.299 1.00 98.34 C
ATOM 1302 CE1 TYR A 242 169.717 135.699 211.642 1.00 98.34 C
ATOM 1303 CE2 TYR A 242 171.876 134.909 212.284 1.00 98.34 C
ATOM 1304 CZ TYR A 242 171.080 135.667 211.458 1.00 98.34 C
ATOM 1305 OH TYR A 242 171.652 136.397 210.444 1.00 98.34 O
ATOM 1306 N ARG A 243 169.308 130.905 212.184 1.00100.53 N
ATOM 1307 CA ARG A 243 170.111 129.975 211.403 1.00100.53 C
ATOM 1308 C ARG A 243 170.210 130.452 209.963 1.00100.53 C
ATOM 1309 O ARG A 243 169.333 131.163 209.466 1.00100.53 O
ATOM 1310 CB ARG A 243 169.520 128.564 211.435 1.00100.53 C
ATOM 1311 CG ARG A 243 168.246 128.430 210.629 1.00100.53 C
ATOM 1312 CD ARG A 243 167.918 126.977 210.363 1.00100.53 C
ATOM 1313 NE ARG A 243 166.770 126.836 209.474 1.00100.53 N
ATOM 1314 CZ ARG A 243 166.281 125.671 209.067 1.00100.53 C
ATOM 1315 NH1 ARG A 243 166.841 124.538 209.470 1.00100.53 N
ATOM 1316 NH2 ARG A 243 165.231 125.638 208.259 1.00100.53 N
ATOM 1317 N GLU A 244 171.289 130.045 209.298 1.00 97.60 N
ATOM 1318 CA GLU A 244 171.497 130.315 207.884 1.00 97.60 C
ATOM 1319 C GLU A 244 172.119 129.087 207.237 1.00 97.60 C
ATOM 1320 O GLU A 244 172.979 128.433 207.832 1.00 97.60 O
ATOM 1321 CB GLU A 244 172.389 131.542 207.671 1.00 97.60 C
ATOM 1322 CG GLU A 244 173.834 131.337 208.066 1.00 97.60 C
ATOM 1323 CD GLU A 244 174.021 131.307 209.564 1.00 97.60 C

```
ATOM   1324  OE1 GLU A 244     173.081 130.887 210.269  1.00 97.60           O
ATOM   1325  OE2 GLU A 244     175.102 131.713 210.039  1.00 97.60           O
ATOM   1326  N   THR A 245     171.684 128.782 206.020  1.00 96.12           N
ATOM   1327  CA  THR A 245     172.013 127.528 205.357  1.00 96.12           C
ATOM   1328  C   THR A 245     172.863 127.787 204.112  1.00 96.12           C
ATOM   1329  O   THR A 245     173.259 128.919 203.825  1.00 96.12           O
ATOM   1330  CB  THR A 245     170.733 126.769 205.007  1.00 96.12           C
ATOM   1331  OG1 THR A 245     169.859 127.629 204.267  1.00 96.12           O
ATOM   1332  CG2 THR A 245     170.030 126.319 206.272  1.00 96.12           C
ATOM   1333  N   CYS A 246     173.142 126.714 203.373  1.00 95.23           N
ATOM   1334  CA  CYS A 246     173.952 126.783 202.159  1.00 95.23           C
ATOM   1335  C   CYS A 246     173.620 125.577 201.298  1.00 95.23           C
ATOM   1336  O   CYS A 246     173.866 124.441 201.711  1.00 95.23           O
ATOM   1337  CB  CYS A 246     175.441 126.810 202.497  1.00 95.23           C
ATOM   1338  SG  CYS A 246     176.535 126.909 201.064  1.00 95.23           S
ATOM   1339  N   ASN A 247     173.069 125.816 200.111  1.00 90.19           N
ATOM   1340  CA  ASN A 247     172.650 124.752 199.210  1.00 90.19           C
ATOM   1341  C   ASN A 247     173.516 124.752 197.960  1.00 90.19           C
ATOM   1342  O   ASN A 247     173.937 125.811 197.486  1.00 90.19           O
ATOM   1343  CB  ASN A 247     171.179 124.909 198.826  1.00 90.19           C
ATOM   1344  CG  ASN A 247     170.245 124.550 199.957  1.00 90.19           C
ATOM   1345  OD1 ASN A 247     170.513 123.630 200.728  1.00 90.19           O
ATOM   1346  ND2 ASN A 247     169.140 125.277 200.067  1.00 90.19           N
ATOM   1347  N   LEU A 248     173.773 123.562 197.426  1.00 79.57           N
ATOM   1348  CA  LEU A 248     174.654 123.376 196.283  1.00 79.57           C
ATOM   1349  C   LEU A 248     173.873 122.854 195.084  1.00 79.57           C
ATOM   1350  O   LEU A 248     172.763 122.333 195.212  1.00 79.57           O
ATOM   1351  CB  LEU A 248     175.791 122.411 196.625  1.00 79.57           C
ATOM   1352  CG  LEU A 248     177.056 122.559 195.787  1.00 79.57           C
ATOM   1353  CD1 LEU A 248     177.636 123.944 195.966  1.00 79.57           C
ATOM   1354  CD2 LEU A 248     178.068 121.502 196.172  1.00 79.57           C
ATOM   1355  N   ASN A 249     174.476 122.996 193.906  1.00 64.92           N
ATOM   1356  CA  ASN A 249     173.829 122.591 192.667  1.00 64.92           C
ATOM   1357  C   ASN A 249     174.879 122.515 191.569  1.00 64.92           C
```

ATOM 1358 O ASN A 249 175.788 123.346 191.521 1.00 64.92 O
ATOM 1359 CB ASN A 249 172.720 123.575 192.280 1.00 64.92 C
ATOM 1360 CG ASN A 249 171.722 122.975 191.323 1.00 64.92 C
ATOM 1361 OD1 ASN A 249 171.635 121.758 191.186 1.00 64.92 O
ATOM 1362 ND2 ASN A 249 170.957 123.826 190.655 1.00 64.92 N
ATOM 1363 N CYS A 250 174.746 121.520 190.693 1.00 57.10 N
ATOM 1364 CA CYS A 250 175.702 121.272 189.619 1.00 57.10 C
ATOM 1365 C CYS A 250 174.931 121.102 188.321 1.00 57.10 C
ATOM 1366 O CYS A 250 174.081 120.213 188.221 1.00 57.10 O
ATOM 1367 CB CYS A 250 176.544 120.028 189.915 1.00 57.10 C
ATOM 1368 SG CYS A 250 177.768 119.607 188.664 1.00 57.10 S
ATOM 1369 N MET A 251 175.222 121.945 187.333 1.00 46.38 N
ATOM 1370 CA MET A 251 174.472 121.937 186.086 1.00 46.38 C
ATOM 1371 C MET A 251 175.421 122.004 184.898 1.00 46.38 C
ATOM 1372 O MET A 251 176.507 122.579 184.984 1.00 46.38 O
ATOM 1373 CB MET A 251 173.471 123.094 186.033 1.00 46.38 C
ATOM 1374 CG MET A 251 174.106 124.456 185.945 1.00 46.38 C
ATOM 1375 SD MET A 251 172.874 125.767 185.923 1.00 46.38 S
ATOM 1376 CE MET A 251 172.049 125.466 187.479 1.00 46.38 C
ATOM 1377 N VAL A 252 174.991 121.404 183.785 1.00 39.69 N
ATOM 1378 CA VAL A 252 175.786 121.292 182.565 1.00 39.69 C
ATOM 1379 C VAL A 252 174.910 121.514 181.340 1.00 39.69 C
ATOM 1380 O VAL A 252 174.176 120.611 180.928 1.00 39.69 O
ATOM 1381 CB VAL A 252 176.468 119.918 182.482 1.00 39.69 C
ATOM 1382 CG1 VAL A 252 176.950 119.666 181.078 1.00 39.69 C
ATOM 1383 CG2 VAL A 252 177.612 119.833 183.461 1.00 39.69 C
ATOM 1384 N THR A 253 174.987 122.693 180.734 1.00 35.31 N
ATOM 1385 CA THR A 253 174.170 122.990 179.567 1.00 35.31 C
ATOM 1386 C THR A 253 174.847 122.497 178.290 1.00 35.31 C
ATOM 1387 O THR A 253 175.988 122.036 178.299 1.00 35.31 O
ATOM 1388 CB THR A 253 173.884 124.487 179.480 1.00 35.31 C
ATOM 1389 OG1 THR A 253 173.182 124.775 178.267 1.00 35.31 O
ATOM 1390 CG2 THR A 253 175.167 125.269 179.507 1.00 35.31 C
ATOM 1391 N ILE A 254 174.114 122.581 177.179 1.00 37.00 N

ATOM 1392 CA ILE A 254 174.611 122.163 175.869 1.00 37.00 C
ATOM 1393 C ILE A 254 173.986 123.033 174.787 1.00 37.00 C
ATOM 1394 O ILE A 254 172.764 123.028 174.609 1.00 37.00 O
ATOM 1395 CB ILE A 254 174.314 120.678 175.607 1.00 37.00 C
ATOM 1396 CG1 ILE A 254 175.118 119.794 176.553 1.00 37.00 C
ATOM 1397 CG2 ILE A 254 174.629 120.325 174.174 1.00 37.00 C
ATOM 1398 CD1 ILE A 254 174.896 118.327 176.331 1.00 37.00 C
ATOM 1399 N THR A 255 174.809 123.768 174.040 1.00 37.85 N
ATOM 1400 CA THR A 255 174.289 124.723 173.067 1.00 37.85 C
ATOM 1401 C THR A 255 174.986 124.614 171.716 1.00 37.85 C
ATOM 1402 O THR A 255 175.752 123.676 171.482 1.00 37.85 O
ATOM 1403 CB THR A 255 174.421 126.144 173.605 1.00 37.85 C
ATOM 1404 OG1 THR A 255 175.801 126.435 173.843 1.00 37.85 O
ATOM 1405 CG2 THR A 255 173.662 126.281 174.902 1.00 37.85 C
ATOM 1406 N THR A 256 174.723 125.565 170.819 1.00 39.35 N
ATOM 1407 CA THR A 256 175.303 125.567 169.479 1.00 39.35 C
ATOM 1408 C THR A 256 175.772 126.972 169.141 1.00 39.35 C
ATOM 1409 O THR A 256 174.972 127.910 169.165 1.00 39.35 O
ATOM 1410 CB THR A 256 174.292 125.093 168.437 1.00 39.35 C
ATOM 1411 OG1 THR A 256 173.390 126.162 168.138 1.00 39.35 O
ATOM 1412 CG2 THR A 256 173.503 123.917 168.965 1.00 39.35 C
ATOM 1413 N ALA A 257 177.051 127.114 168.807 1.00 38.91 N
ATOM 1414 CA ALA A 257 177.655 128.402 168.512 1.00 38.91 C
ATOM 1415 C ALA A 257 177.654 128.659 167.009 1.00 38.91 C
ATOM 1416 O ALA A 257 177.279 127.803 166.209 1.00 38.91 O
ATOM 1417 CB ALA A 257 179.071 128.465 169.077 1.00 38.91 C
ATOM 1418 N ARG A 258 178.086 129.857 166.619 1.00 44.69 N
ATOM 1419 CA ARG A 258 178.117 130.218 165.203 1.00 44.69 C
ATOM 1420 C ARG A 258 179.065 131.392 165.004 1.00 44.69 C
ATOM 1421 O ARG A 258 178.803 132.487 165.510 1.00 44.69 O
ATOM 1422 CB ARG A 258 176.722 130.562 164.707 1.00 44.69 C
ATOM 1423 CG ARG A 258 176.712 131.612 163.619 1.00 44.69 C
ATOM 1424 CD ARG A 258 175.336 131.764 163.011 1.00 44.69 C
ATOM 1425 NE ARG A 258 174.830 130.500 162.493 1.00 44.69 N

ATOM 1426 CZ ARG A 258 173.652 130.359 161.901 1.00 44.69 C
ATOM 1427 NH1 ARG A 258 173.267 129.172 161.459 1.00 44.69 N
ATOM 1428 NH2 ARG A 258 172.857 131.407 161.753 1.00 44.69 N
ATOM 1429 N SER A 259 180.146 131.172 164.260 1.00 47.82 N
ATOM 1430 CA SER A 259 181.091 132.215 163.891 1.00 47.82 C
ATOM 1431 C SER A 259 181.005 132.482 162.396 1.00 47.82 C
ATOM 1432 O SER A 259 180.378 131.733 161.645 1.00 47.82 O
ATOM 1433 CB SER A 259 182.520 131.823 164.275 1.00 47.82 C
ATOM 1434 OG SER A 259 182.793 130.488 163.901 1.00 47.82 O
ATOM 1435 N LYS A 260 181.654 133.560 161.958 1.00 58.72 N
ATOM 1436 CA LYS A 260 181.624 133.938 160.553 1.00 58.72 C
ATOM 1437 C LYS A 260 182.943 134.582 160.148 1.00 58.72 C
ATOM 1438 O LYS A 260 183.740 135.004 160.988 1.00 58.72 O
ATOM 1439 CB LYS A 260 180.451 134.874 160.252 1.00 58.72 C
ATOM 1440 CG LYS A 260 180.452 136.152 161.047 1.00 58.72 C
ATOM 1441 CD LYS A 260 179.265 137.004 160.654 1.00 58.72 C
ATOM 1442 CE LYS A 260 177.965 136.347 161.086 1.00 58.72 C
ATOM 1443 NZ LYS A 260 176.791 137.232 160.862 1.00 58.72 N
ATOM 1444 N TYR A 261 183.155 134.646 158.838 1.00 62.19 N
ATOM 1445 CA TYR A 261 184.434 135.061 158.281 1.00 62.19 C
ATOM 1446 C TYR A 261 184.877 136.387 158.896 1.00 62.19 C
ATOM 1447 O TYR A 261 184.053 137.294 159.067 1.00 62.19 O
ATOM 1448 CB TYR A 261 184.313 135.195 156.761 1.00 62.19 C
ATOM 1449 CG TYR A 261 185.626 135.201 156.014 1.00 62.19 C
ATOM 1450 CD1 TYR A 261 186.257 134.014 155.674 1.00 62.19 C
ATOM 1451 CD2 TYR A 261 186.221 136.390 155.628 1.00 62.19 C
ATOM 1452 CE1 TYR A 261 187.449 134.013 154.987 1.00 62.19 C
ATOM 1453 CE2 TYR A 261 187.413 136.398 154.939 1.00 62.19 C
ATOM 1454 CZ TYR A 261 188.023 135.206 154.622 1.00 62.19 C
ATOM 1455 OH TYR A 261 189.213 135.208 153.935 1.00 62.19 O
ATOM 1456 N PRO A 262 186.170 136.549 159.229 1.00 59.61 N
ATOM 1457 CA PRO A 262 187.258 135.581 159.056 1.00 59.61 C
ATOM 1458 C PRO A 262 187.461 134.604 160.218 1.00 59.61 C
ATOM 1459 O PRO A 262 188.560 134.073 160.363 1.00 59.61 O

ATOM 1460 CB PRO A 262 188.482 136.479 158.916 1.00 59.61 C
ATOM 1461 CG PRO A 262 188.166 137.630 159.778 1.00 59.61 C
ATOM 1462 CD PRO A 262 186.685 137.865 159.642 1.00 59.61 C
ATOM 1463 N TYR A 263 186.426 134.367 161.024 1.00 58.28 N
ATOM 1464 CA TYR A 263 186.458 133.360 162.085 1.00 58.28 C
ATOM 1465 C TYR A 263 187.560 133.646 163.110 1.00 58.28 C
ATOM 1466 O TYR A 263 188.529 132.899 163.240 1.00 58.28 O
ATOM 1467 CB TYR A 263 186.653 131.950 161.514 1.00 58.28 C
ATOM 1468 CG TYR A 263 185.904 131.642 160.246 1.00 58.28 C
ATOM 1469 CD1 TYR A 263 184.558 131.927 160.124 1.00 58.28 C
ATOM 1470 CD2 TYR A 263 186.541 131.037 159.178 1.00 58.28 C
ATOM 1471 CE1 TYR A 263 183.871 131.637 158.968 1.00 58.28 C
ATOM 1472 CE2 TYR A 263 185.862 130.741 158.020 1.00 58.28 C
ATOM 1473 CZ TYR A 263 184.527 131.044 157.920 1.00 58.28 C
ATOM 1474 OH TYR A 263 183.846 130.750 156.765 1.00 58.28 O
ATOM 1475 N HIS A 264 187.401 134.752 163.842 1.00 60.83 N
ATOM 1476 CA HIS A 264 188.211 134.883 165.048 1.00 60.83 C
ATOM 1477 C HIS A 264 187.386 135.337 166.248 1.00 60.83 C
ATOM 1478 O HIS A 264 187.898 136.037 167.126 1.00 60.83 O
ATOM 1479 CB HIS A 264 189.413 135.816 164.847 1.00 60.83 C
ATOM 1480 CG HIS A 264 189.061 137.223 164.477 1.00 60.83 C
ATOM 1481 ND1 HIS A 264 189.458 137.797 163.289 1.00 60.83 N
ATOM 1482 CD2 HIS A 264 188.369 138.177 165.143 1.00 60.83 C
ATOM 1483 CE1 HIS A 264 189.021 139.042 163.236 1.00 60.83 C
ATOM 1484 NE2 HIS A 264 188.355 139.297 164.348 1.00 60.83 N
ATOM 1485 N PHE A 265 186.109 134.961 166.296 1.00 47.73 N
ATOM 1486 CA PHE A 265 185.336 135.018 167.531 1.00 47.73 C
ATOM 1487 C PHE A 265 183.969 134.388 167.308 1.00 47.73 C
ATOM 1488 O PHE A 265 183.369 134.580 166.247 1.00 47.73 O
ATOM 1489 CB PHE A 265 185.199 136.458 168.020 1.00 47.73 C
ATOM 1490 CG PHE A 265 183.960 137.146 167.541 1.00 47.73 C
ATOM 1491 CD1 PHE A 265 183.922 137.744 166.299 1.00 47.73 C
ATOM 1492 CD2 PHE A 265 182.834 137.204 168.338 1.00 47.73 C
ATOM 1493 CE1 PHE A 265 182.783 138.382 165.859 1.00 47.73 C

ATOM 1494 CE2 PHE A 265 181.693 137.840 167.903 1.00 47.73 C
ATOM 1495 CZ PHE A 265 181.667 138.430 166.662 1.00 47.73 C
ATOM 1496 N PHE A 266 183.455 133.647 168.287 1.00 38.77 N
ATOM 1497 CA PHE A 266 182.148 133.021 168.158 1.00 38.77 C
ATOM 1498 C PHE A 266 181.309 133.282 169.398 1.00 38.77 C
ATOM 1499 O PHE A 266 181.829 133.530 170.485 1.00 38.77 O
ATOM 1500 CB PHE A 266 182.261 131.516 167.907 1.00 38.77 C
ATOM 1501 CG PHE A 266 182.950 130.757 168.997 1.00 38.77 C
ATOM 1502 CD1 PHE A 266 182.238 130.262 170.069 1.00 38.77 C
ATOM 1503 CD2 PHE A 266 184.302 130.500 168.930 1.00 38.77 C
ATOM 1504 CE1 PHE A 266 182.867 129.545 171.063 1.00 38.77 C
ATOM 1505 CE2 PHE A 266 184.935 129.782 169.923 1.00 38.77 C
ATOM 1506 CZ PHE A 266 184.216 129.303 170.987 1.00 38.77 C
ATOM 1507 N ALA A 267 179.992 133.214 169.217 1.00 37.76 N
ATOM 1508 CA ALA A 267 179.029 133.492 170.274 1.00 37.76 C
ATOM 1509 C ALA A 267 177.991 132.383 170.318 1.00 37.76 C
ATOM 1510 O ALA A 267 177.399 132.046 169.290 1.00 37.76 O
ATOM 1511 CB ALA A 267 178.345 134.842 170.056 1.00 37.76 C
ATOM 1512 N THR A 268 177.758 131.834 171.506 1.00 39.01 N
ATOM 1513 CA THR A 268 176.854 130.703 171.668 1.00 39.01 C
ATOM 1514 C THR A 268 175.406 131.188 171.656 1.00 39.01 C
ATOM 1515 O THR A 268 175.112 132.339 171.326 1.00 39.01 O
ATOM 1516 CB THR A 268 177.184 129.941 172.945 1.00 39.01 C
ATOM 1517 OG1 THR A 268 177.097 130.826 174.064 1.00 39.01 O
ATOM 1518 CG2 THR A 268 178.586 129.376 172.875 1.00 39.01 C
ATOM 1519 N SER A 269 174.478 130.299 172.009 1.00 40.29 N
ATOM 1520 CA SER A 269 173.055 130.616 172.022 1.00 40.29 C
ATOM 1521 C SER A 269 172.600 131.199 173.353 1.00 40.29 C
ATOM 1522 O SER A 269 171.772 132.115 173.374 1.00 40.29 O
ATOM 1523 CB SER A 269 172.230 129.368 171.704 1.00 40.29 C
ATOM 1524 OG SER A 269 172.270 129.066 170.323 1.00 40.29 O
ATOM 1525 N THR A 270 173.115 130.681 174.469 1.00 41.24 N
ATOM 1526 CA THR A 270 172.740 131.207 175.775 1.00 41.24 C
ATOM 1527 C THR A 270 173.225 132.635 175.988 1.00 41.24 C

ATOM 1528 O THR A 270 172.706 133.325 176.870 1.00 41.24 O
ATOM 1529 CB THR A 270 173.273 130.298 176.881 1.00 41.24 C
ATOM 1530 OG1 THR A 270 174.705 130.301 176.867 1.00 41.24 O
ATOM 1531 CG2 THR A 270 172.778 128.888 176.679 1.00 41.24 C
ATOM 1532 N GLY A 271 174.209 133.094 175.219 1.00 39.88 N
ATOM 1533 CA GLY A 271 174.594 134.491 175.265 1.00 39.88 C
ATOM 1534 C GLY A 271 176.082 134.748 175.371 1.00 39.88 C
ATOM 1535 O GLY A 271 176.536 135.882 175.198 1.00 39.88 O
ATOM 1536 N ASP A 272 176.852 133.700 175.641 1.00 42.71 N
ATOM 1537 CA ASP A 272 178.270 133.831 175.941 1.00 42.71 C
ATOM 1538 C ASP A 272 179.052 134.323 174.722 1.00 42.71 C
ATOM 1539 O ASP A 272 178.527 134.441 173.617 1.00 42.71 O
ATOM 1540 CB ASP A 272 178.814 132.489 176.420 1.00 42.71 C
ATOM 1541 CG ASP A 272 178.432 132.193 177.845 1.00 42.71 C
ATOM 1542 OD1 ASP A 272 178.455 133.136 178.668 1.00 42.71 O
ATOM 1543 OD2 ASP A 272 178.168 131.014 178.164 1.00 42.71 O
ATOM 1544 N VAL A 273 180.333 134.611 174.939 1.00 39.85 N
ATOM 1545 CA VAL A 273 181.209 135.115 173.883 1.00 39.85 C
ATOM 1546 C VAL A 273 182.649 134.816 174.276 1.00 39.85 C
ATOM 1547 O VAL A 273 183.021 134.918 175.448 1.00 39.85 O
ATOM 1548 CB VAL A 273 181.004 136.629 173.645 1.00 39.85 C
ATOM 1549 CG1 VAL A 273 182.113 137.176 172.782 1.00 39.85 C
ATOM 1550 CG2 VAL A 273 179.667 136.899 172.994 1.00 39.85 C
ATOM 1551 N VAL A 274 183.460 134.452 173.286 1.00 42.22 N
ATOM 1552 CA VAL A 274 184.883 134.204 173.478 1.00 42.22 C
ATOM 1553 C VAL A 274 185.624 134.704 172.245 1.00 42.22 C
ATOM 1554 O VAL A 274 185.033 134.949 171.193 1.00 42.22 O
ATOM 1555 CB VAL A 274 185.191 132.717 173.723 1.00 42.22 C
ATOM 1556 CG1 VAL A 274 184.514 132.249 174.984 1.00 42.22 C
ATOM 1557 CG2 VAL A 274 184.720 131.908 172.560 1.00 42.22 C
ATOM 1558 N ASP A 275 186.939 134.856 172.382 1.00 51.68 N
ATOM 1559 CA ASP A 275 187.787 135.369 171.306 1.00 51.68 C
ATOM 1560 C ASP A 275 188.837 134.321 170.961 1.00 51.68 C
ATOM 1561 O ASP A 275 189.971 134.372 171.437 1.00 51.68 O

ATOM 1562 CB ASP A 275 188.423 136.684 171.706 1.00 51.68 C
ATOM 1563 CG ASP A 275 187.449 137.835 171.661 1.00 51.68 C
ATOM 1564 OD1 ASP A 275 186.268 137.597 171.341 1.00 51.68 O
ATOM 1565 OD2 ASP A 275 187.861 138.979 171.945 1.00 51.68 O
ATOM 1566 N ILE A 276 188.456 133.380 170.101 1.00 48.86 N
ATOM 1567 CA ILE A 276 189.372 132.370 169.589 1.00 48.86 C
ATOM 1568 C ILE A 276 188.792 131.882 168.275 1.00 48.86 C
ATOM 1569 O ILE A 276 187.601 132.037 168.012 1.00 48.86 O
ATOM 1570 CB ILE A 276 189.569 131.203 170.589 1.00 48.86 C
ATOM 1571 CG1 ILE A 276 190.204 131.692 171.886 1.00 48.86 C
ATOM 1572 CG2 ILE A 276 190.432 130.124 169.986 1.00 48.86 C
ATOM 1573 CD1 ILE A 276 190.710 130.577 172.761 1.00 48.86 C
ATOM 1574 N SER A 277 189.630 131.303 167.444 1.00 56.45 N
ATOM 1575 CA SER A 277 189.082 130.771 166.207 1.00 56.45 C
ATOM 1576 C SER A 277 188.797 129.293 166.372 1.00 56.45 C
ATOM 1577 O SER A 277 189.686 128.542 166.795 1.00 56.45 O
ATOM 1578 CB SER A 277 190.051 130.986 165.050 1.00 56.45 C
ATOM 1579 OG SER A 277 189.950 132.305 164.545 1.00 56.45 O
ATOM 1580 N PRO A 278 187.588 128.839 166.055 1.00 52.41 N
ATOM 1581 CA PRO A 278 187.262 127.422 166.258 1.00 52.41 C
ATOM 1582 C PRO A 278 188.309 126.474 165.714 1.00 52.41 C
ATOM 1583 O PRO A 278 188.430 125.349 166.212 1.00 52.41 O
ATOM 1584 CB PRO A 278 185.927 127.268 165.522 1.00 52.41 C
ATOM 1585 CG PRO A 278 185.341 128.621 165.519 1.00 52.41 C
ATOM 1586 CD PRO A 278 186.477 129.585 165.447 1.00 52.41 C
ATOM 1587 N PHE A 279 189.076 126.891 164.708 1.00 59.30 N
ATOM 1588 CA PHE A 279 190.068 126.032 164.078 1.00 59.30 C
ATOM 1589 C PHE A 279 191.426 126.079 164.763 1.00 59.30 C
ATOM 1590 O PHE A 279 192.291 125.260 164.439 1.00 59.30 O
ATOM 1591 CB PHE A 279 190.237 126.413 162.605 1.00 59.30 C
ATOM 1592 CG PHE A 279 188.943 126.640 161.884 1.00 59.30 C
ATOM 1593 CD1 PHE A 279 188.190 125.574 161.435 1.00 59.30 C
ATOM 1594 CD2 PHE A 279 188.482 127.920 161.651 1.00 59.30 C
ATOM 1595 CE1 PHE A 279 187.003 125.782 160.772 1.00 59.30 C

ATOM 1596 CE2 PHE A 279 187.295 128.131 160.989 1.00 59.30 C
ATOM 1597 CZ PHE A 279 186.556 127.061 160.549 1.00 59.30 C
ATOM 1598 N TYR A 280 191.636 127.003 165.693 1.00 64.58 N
ATOM 1599 CA TYR A 280 192.950 127.178 166.300 1.00 64.58 C
ATOM 1600 C TYR A 280 193.291 125.977 167.166 1.00 64.58 C
ATOM 1601 O TYR A 280 192.689 125.776 168.224 1.00 64.58 O
ATOM 1602 CB TYR A 280 192.988 128.455 167.131 1.00 64.58 C
ATOM 1603 CG TYR A 280 194.145 128.488 168.099 1.00 64.58 C
ATOM 1604 CD1 TYR A 280 195.397 128.906 167.693 1.00 64.58 C
ATOM 1605 CD2 TYR A 280 193.989 128.093 169.414 1.00 64.58 C
ATOM 1606 CE1 TYR A 280 196.458 128.933 168.567 1.00 64.58 C
ATOM 1607 CE2 TYR A 280 195.047 128.115 170.294 1.00 64.58 C
ATOM 1608 CZ TYR A 280 196.278 128.537 169.865 1.00 64.58 C
ATOM 1609 OH TYR A 280 197.337 128.564 170.739 1.00 64.58 O
ATOM 1610 N ASN A 281 194.246 125.172 166.727 1.00 70.38 N
ATOM 1611 CA ASN A 281 194.907 124.233 167.613 1.00 70.38 C
ATOM 1612 C ASN A 281 196.219 124.849 168.091 1.00 70.38 C
ATOM 1613 O ASN A 281 196.460 126.049 167.937 1.00 70.38 O
ATOM 1614 CB ASN A 281 195.096 122.873 166.939 1.00 70.38 C
ATOM 1615 CG ASN A 281 195.565 122.984 165.515 1.00 70.38 C
ATOM 1616 OD1 ASN A 281 195.973 124.049 165.061 1.00 70.38 O
ATOM 1617 ND2 ASN A 281 195.497 121.875 164.791 1.00 70.38 N
ATOM 1618 N GLY A 282 197.061 124.032 168.711 1.00 73.55 N
ATOM 1619 CA GLY A 282 198.281 124.507 169.332 1.00 73.55 C
ATOM 1620 C GLY A 282 199.131 125.488 168.547 1.00 73.55 C
ATOM 1621 O GLY A 282 199.547 126.512 169.095 1.00 73.55 O
ATOM 1622 N THR A 283 199.398 125.202 167.273 1.00 77.44 N
ATOM 1623 CA THR A 283 200.457 125.875 166.520 1.00 77.44 C
ATOM 1624 C THR A 283 199.935 126.459 165.209 1.00 77.44 C
ATOM 1625 O THR A 283 200.506 126.246 164.139 1.00 77.44 O
ATOM 1626 CB THR A 283 201.607 124.913 166.245 1.00 77.44 C
ATOM 1627 OG1 THR A 283 201.302 124.126 165.088 1.00 77.44 O
ATOM 1628 CG2 THR A 283 201.811 123.986 167.431 1.00 77.44 C
ATOM 1629 N ASN A 284 198.836 127.211 165.271 1.00 76.77 N

ATOM 1630 CA ASN A 284 198.292 127.879 164.093 1.00 76.77 C
ATOM 1631 C ASN A 284 198.046 129.358 164.351 1.00 76.77 C
ATOM 1632 O ASN A 284 197.115 129.942 163.793 1.00 76.77 O
ATOM 1633 CB ASN A 284 197.001 127.211 163.628 1.00 76.77 C
ATOM 1634 CG ASN A 284 197.227 125.818 163.111 1.00 76.77 C
ATOM 1635 OD1 ASN A 284 198.355 125.331 163.085 1.00 76.77 O
ATOM 1636 ND2 ASN A 284 196.153 125.161 162.694 1.00 76.77 N
ATOM 1637 N ARG A 285 198.868 129.980 165.198 1.00 78.71 N
ATOM 1638 CA ARG A 285 198.666 131.391 165.503 1.00 78.71 C
ATOM 1639 C ARG A 285 198.772 132.260 164.256 1.00 78.71 C
ATOM 1640 O ARG A 285 198.162 133.333 164.196 1.00 78.71 O
ATOM 1641 CB ARG A 285 199.675 131.851 166.553 1.00 78.71 C
ATOM 1642 CG ARG A 285 199.465 131.242 167.922 1.00 78.71 C
ATOM 1643 CD ARG A 285 199.800 132.239 169.015 1.00 78.71 C
ATOM 1644 NE ARG A 285 199.159 133.529 168.783 1.00 78.71 N
ATOM 1645 CZ ARG A 285 199.077 134.496 169.691 1.00 78.71 C
ATOM 1646 NH1 ARG A 285 199.595 134.320 170.897 1.00 78.71 N
ATOM 1647 NH2 ARG A 285 198.475 135.638 169.393 1.00 78.71 N
ATOM 1648 N ASN A 286 199.535 131.818 163.255 1.00 88.39 N
ATOM 1649 CA ASN A 286 199.733 132.625 162.055 1.00 88.39 C
ATOM 1650 C ASN A 286 198.413 132.879 161.340 1.00 88.39 C
ATOM 1651 O ASN A 286 197.972 134.026 161.205 1.00 88.39 O
ATOM 1652 CB ASN A 286 200.729 131.936 161.123 1.00 88.39 C
ATOM 1653 CG ASN A 286 202.063 131.683 161.787 1.00 88.39 C
ATOM 1654 OD1 ASN A 286 202.542 132.502 162.571 1.00 88.39 O
ATOM 1655 ND2 ASN A 286 202.671 130.545 161.480 1.00 88.39 N
ATOM 1656 N ALA A 287 197.767 131.812 160.871 1.00 83.03 N
ATOM 1657 CA ALA A 287 196.494 131.958 160.176 1.00 83.03 C
ATOM 1658 C ALA A 287 195.340 132.131 161.157 1.00 83.03 C
ATOM 1659 O ALA A 287 194.464 132.978 160.953 1.00 83.03 O
ATOM 1660 CB ALA A 287 196.252 130.752 159.268 1.00 83.03 C
ATOM 1661 N SER A 288 195.328 131.344 162.229 1.00 74.07 N
ATOM 1662 CA SER A 288 194.226 131.339 163.178 1.00 74.07 C
ATOM 1663 C SER A 288 194.476 132.323 164.316 1.00 74.07 C

ATOM 1664 O SER A 288 195.611 132.534 164.747 1.00 74.07 O
ATOM 1665 CB SER A 288 194.018 129.936 163.738 1.00 74.07 C
ATOM 1666 OG SER A 288 194.088 128.974 162.703 1.00 74.07 O
ATOM 1667 N TYR A 289 193.391 132.918 164.801 1.00 66.18 N
ATOM 1668 CA TYR A 289 193.435 133.946 165.828 1.00 66.18 C
ATOM 1669 C TYR A 289 193.543 133.327 167.218 1.00 66.18 C
ATOM 1670 O TYR A 289 193.245 132.149 167.430 1.00 66.18 O
ATOM 1671 CB TYR A 289 192.183 134.815 165.735 1.00 66.18 C
ATOM 1672 CG TYR A 289 192.219 136.104 166.519 1.00 66.18 C
ATOM 1673 CD1 TYR A 289 191.899 136.130 167.866 1.00 66.18 C
ATOM 1674 CD2 TYR A 289 192.529 137.301 165.900 1.00 66.18 C
ATOM 1675 CE1 TYR A 289 191.916 137.305 168.580 1.00 66.18 C
ATOM 1676 CE2 TYR A 289 192.548 138.482 166.605 1.00 66.18 C
ATOM 1677 CZ TYR A 289 192.239 138.479 167.945 1.00 66.18 C
ATOM 1678 OH TYR A 289 192.255 139.656 168.654 1.00 66.18 O
ATOM 1679 N PHE A 290 193.991 134.140 168.172 1.00 65.86 N
ATOM 1680 CA PHE A 290 193.983 133.752 169.582 1.00 65.86 C
ATOM 1681 C PHE A 290 194.165 135.006 170.419 1.00 65.86 C
ATOM 1682 O PHE A 290 195.184 135.689 170.283 1.00 65.86 O
ATOM 1683 CB PHE A 290 195.084 132.751 169.878 1.00 65.86 C
ATOM 1684 CG PHE A 290 195.112 132.298 171.299 1.00 65.86 C
ATOM 1685 CD1 PHE A 290 194.366 131.210 171.703 1.00 65.86 C
ATOM 1686 CD2 PHE A 290 195.867 132.970 172.237 1.00 65.86 C
ATOM 1687 CE1 PHE A 290 194.385 130.791 173.011 1.00 65.86 C
ATOM 1688 CE2 PHE A 290 195.888 132.556 173.545 1.00 65.86 C
ATOM 1689 CZ PHE A 290 195.146 131.465 173.933 1.00 65.86 C
ATOM 1690 N GLY A 291 193.201 135.305 171.285 1.00 63.55 N
ATOM 1691 CA GLY A 291 193.253 136.556 172.016 1.00 63.55 C
ATOM 1692 C GLY A 291 192.756 136.574 173.448 1.00 63.55 C
ATOM 1693 O GLY A 291 192.226 137.600 173.883 1.00 63.55 O
ATOM 1694 N GLU A 292 192.902 135.484 174.204 1.00 65.85 N
ATOM 1695 CA GLU A 292 192.330 135.432 175.545 1.00 65.85 C
ATOM 1696 C GLU A 292 193.376 135.394 176.652 1.00 65.85 C
ATOM 1697 O GLU A 292 193.396 136.287 177.503 1.00 65.85 O

ATOM 1698 CB GLU A 292 191.390 134.227 175.668 1.00 65.85 C
ATOM 1699 CG GLU A 292 189.960 134.519 175.247 1.00 65.85 C
ATOM 1700 CD GLU A 292 189.246 135.444 176.211 1.00 65.85 C
ATOM 1701 OE1 GLU A 292 189.741 135.622 177.341 1.00 65.85 O
ATOM 1702 OE2 GLU A 292 188.191 135.996 175.837 1.00 65.85 O
ATOM 1703 N ASN A 293 194.251 134.400 176.676 1.00 71.25 N
ATOM 1704 CA ASN A 293 195.213 134.287 177.771 1.00 71.25 C
ATOM 1705 C ASN A 293 196.175 133.148 177.455 1.00 71.25 C
ATOM 1706 O ASN A 293 196.129 132.557 176.370 1.00 71.25 O
ATOM 1707 CB ASN A 293 194.507 134.088 179.112 1.00 71.25 C
ATOM 1708 CG ASN A 293 195.390 134.443 180.287 1.00 71.25 C
ATOM 1709 OD1 ASN A 293 196.397 133.783 180.541 1.00 71.25 O
ATOM 1710 ND2 ASN A 293 195.022 135.495 181.009 1.00 71.25 N
ATOM 1711 N ALA A 294 197.048 132.834 178.409 1.00 74.38 N
ATOM 1712 CA ALA A 294 198.109 131.856 178.211 1.00 74.38 C
ATOM 1713 C ALA A 294 197.827 130.520 178.879 1.00 74.38 C
ATOM 1714 O ALA A 294 197.881 129.480 178.217 1.00 74.38 O
ATOM 1715 CB ALA A 294 199.440 132.420 178.727 1.00 74.38 C
ATOM 1716 N ASP A 295 197.539 130.512 180.178 1.00 70.52 N
ATOM 1717 CA ASP A 295 197.310 129.278 180.922 1.00 70.52 C
ATOM 1718 C ASP A 295 195.855 129.152 181.363 1.00 70.52 C
ATOM 1719 O ASP A 295 195.556 128.686 182.462 1.00 70.52 O
ATOM 1720 CB ASP A 295 198.244 129.180 182.124 1.00 70.52 C
ATOM 1721 CG ASP A 295 198.392 127.755 182.631 1.00 70.52 C
ATOM 1722 OD1 ASP A 295 197.419 126.981 182.523 1.00 70.52 O
ATOM 1723 OD2 ASP A 295 199.481 127.404 183.132 1.00 70.52 O
ATOM 1724 N LYS A 296 194.936 129.580 180.504 1.00 63.10 N
ATOM 1725 CA LYS A 296 193.519 129.310 180.693 1.00 63.10 C
ATOM 1726 C LYS A 296 193.041 128.501 179.498 1.00 63.10 C
ATOM 1727 O LYS A 296 191.983 128.779 178.928 1.00 63.10 O
ATOM 1728 CB LYS A 296 192.723 130.607 180.832 1.00 63.10 C
ATOM 1729 CG LYS A 296 193.178 131.501 181.970 1.00 63.10 C
ATOM 1730 CD LYS A 296 193.205 130.748 183.286 1.00 63.10 C
ATOM 1731 CE LYS A 296 193.358 131.698 184.459 1.00 63.10 C

ATOM 1732 NZ LYS A 296 192.271 132.710 184.480 1.00 63.10 N
ATOM 1733 N PHE A 297 193.831 127.505 179.110 1.00 57.76 N
ATOM 1734 CA PHE A 297 193.644 126.818 177.843 1.00 57.76 C
ATOM 1735 C PHE A 297 194.269 125.435 177.957 1.00 57.76 C
ATOM 1736 O PHE A 297 195.342 125.286 178.543 1.00 57.76 O
ATOM 1737 CB PHE A 297 194.284 127.621 176.707 1.00 57.76 C
ATOM 1738 CG PHE A 297 194.030 127.061 175.346 1.00 57.76 C
ATOM 1739 CD1 PHE A 297 192.825 127.281 174.710 1.00 57.76 C
ATOM 1740 CD2 PHE A 297 194.994 126.309 174.704 1.00 57.76 C
ATOM 1741 CE1 PHE A 297 192.585 126.764 173.458 1.00 57.76 C
ATOM 1742 CE2 PHE A 297 194.759 125.790 173.451 1.00 57.76 C
ATOM 1743 CZ PHE A 297 193.553 126.021 172.827 1.00 57.76 C
ATOM 1744 N PHE A 298 193.596 124.429 177.405 1.00 57.00 N
ATOM 1745 CA PHE A 298 194.043 123.049 177.561 1.00 57.00 C
ATOM 1746 C PHE A 298 193.567 122.220 176.381 1.00 57.00 C
ATOM 1747 O PHE A 298 192.362 122.139 176.124 1.00 57.00 O
ATOM 1748 CB PHE A 298 193.527 122.453 178.869 1.00 57.00 C
ATOM 1749 CG PHE A 298 194.247 122.947 180.082 1.00 57.00 C
ATOM 1750 CD1 PHE A 298 195.425 122.353 180.494 1.00 57.00 C
ATOM 1751 CD2 PHE A 298 193.744 124.005 180.814 1.00 57.00 C
ATOM 1752 CE1 PHE A 298 196.088 122.806 181.611 1.00 57.00 C
ATOM 1753 CE2 PHE A 298 194.401 124.463 181.932 1.00 57.00 C
ATOM 1754 CZ PHE A 298 195.575 123.864 182.332 1.00 57.00 C
ATOM 1755 N ILE A 299 194.508 121.601 175.674 1.00 56.82 N
ATOM 1756 CA ILE A 299 194.215 120.740 174.535 1.00 56.82 C
ATOM 1757 C ILE A 299 194.517 119.304 174.937 1.00 56.82 C
ATOM 1758 O ILE A 299 195.648 118.984 175.322 1.00 56.82 O
ATOM 1759 CB ILE A 299 195.022 121.147 173.294 1.00 56.82 C
ATOM 1760 CG1 ILE A 299 194.782 122.616 172.951 1.00 56.82 C
ATOM 1761 CG2 ILE A 299 194.648 120.273 172.118 1.00 56.82 C
ATOM 1762 CD1 ILE A 299 193.416 122.888 172.370 1.00 56.82 C
ATOM 1763 N PHE A 300 193.508 118.441 174.848 1.00 58.87 N
ATOM 1764 CA PHE A 300 193.636 117.044 175.211 1.00 58.87 C
ATOM 1765 C PHE A 300 193.421 116.165 173.987 1.00 58.87 C

ATOM 1766 O PHE A 300 192.385 116.285 173.319 1.00 58.87 O
ATOM 1767 CB PHE A 300 192.622 116.672 176.301 1.00 58.87 C
ATOM 1768 CG PHE A 300 192.931 117.266 177.644 1.00 58.87 C
ATOM 1769 CD1 PHE A 300 193.755 116.604 178.533 1.00 58.87 C
ATOM 1770 CD2 PHE A 300 192.394 118.484 178.017 1.00 58.87 C
ATOM 1771 CE1 PHE A 300 194.040 117.146 179.766 1.00 58.87 C
ATOM 1772 CE2 PHE A 300 192.676 119.029 179.249 1.00 58.87 C
ATOM 1773 CZ PHE A 300 193.500 118.360 180.124 1.00 58.87 C
ATOM 1774 N PRO A 301 194.364 115.284 173.654 1.00 64.73 N
ATOM 1775 CA PRO A 301 194.182 114.387 172.509 1.00 64.73 C
ATOM 1776 C PRO A 301 193.576 113.051 172.910 1.00 64.73 C
ATOM 1777 O PRO A 301 193.872 112.495 173.969 1.00 64.73 O
ATOM 1778 CB PRO A 301 195.618 114.205 172.006 1.00 64.73 C
ATOM 1779 CG PRO A 301 196.429 114.243 173.262 1.00 64.73 C
ATOM 1780 CD PRO A 301 195.714 115.166 174.229 1.00 64.73 C
ATOM 1781 N ASN A 302 192.718 112.526 172.039 1.00 68.53 N
ATOM 1782 CA ASN A 302 192.055 111.243 172.265 1.00 68.53 C
ATOM 1783 C ASN A 302 191.289 111.252 173.591 1.00 68.53 C
ATOM 1784 O ASN A 302 191.572 110.499 174.521 1.00 68.53 O
ATOM 1785 CB ASN A 302 193.068 110.098 172.226 1.00 68.53 C
ATOM 1786 CG ASN A 302 193.101 109.398 170.888 1.00 68.53 C
ATOM 1787 OD1 ASN A 302 192.227 109.604 170.047 1.00 68.53 O
ATOM 1788 ND2 ASN A 302 194.110 108.558 170.682 1.00 68.53 N
ATOM 1789 N TYR A 303 190.294 112.131 173.642 1.00 64.36 N
ATOM 1790 CA TYR A 303 189.527 112.376 174.853 1.00 64.36 C
ATOM 1791 C TYR A 303 188.169 111.694 174.766 1.00 64.36 C
ATOM 1792 O TYR A 303 187.506 111.739 173.726 1.00 64.36 O
ATOM 1793 CB TYR A 303 189.351 113.877 175.074 1.00 64.36 C
ATOM 1794 CG TYR A 303 188.896 114.250 176.460 1.00 64.36 C
ATOM 1795 CD1 TYR A 303 189.645 113.898 177.570 1.00 64.36 C
ATOM 1796 CD2 TYR A 303 187.735 114.977 176.658 1.00 64.36 C
ATOM 1797 CE1 TYR A 303 189.241 114.242 178.837 1.00 64.36 C
ATOM 1798 CE2 TYR A 303 187.324 115.328 177.923 1.00 64.36 C
ATOM 1799 CZ TYR A 303 188.081 114.958 179.008 1.00 64.36 C

ATOM 1800 OH TYR A 303 187.678 115.304 180.274 1.00 64.36 O
ATOM 1801 N THR A 304 187.764 111.059 175.861 1.00 61.34 N
ATOM 1802 CA THR A 304 186.506 110.331 175.921 1.00 61.34 C
ATOM 1803 C THR A 304 185.379 111.237 176.403 1.00 61.34 C
ATOM 1804 O THR A 304 185.599 112.233 177.093 1.00 61.34 O
ATOM 1805 CB THR A 304 186.626 109.124 176.851 1.00 61.34 C
ATOM 1806 OG1 THR A 304 187.820 108.398 176.542 1.00 61.34 O
ATOM 1807 CG2 THR A 304 185.432 108.209 176.686 1.00 61.34 C
ATOM 1808 N ILE A 305 184.154 110.866 176.035 1.00 61.07 N
ATOM 1809 CA ILE A 305 182.958 111.586 176.455 1.00 61.07 C
ATOM 1810 C ILE A 305 181.793 110.614 176.389 1.00 61.07 C
ATOM 1811 O ILE A 305 181.813 109.655 175.615 1.00 61.07 O
ATOM 1812 CB ILE A 305 182.706 112.840 175.579 1.00 61.07 C
ATOM 1813 CG1 ILE A 305 183.783 113.896 175.813 1.00 61.07 C
ATOM 1814 CG2 ILE A 305 181.333 113.417 175.847 1.00 61.07 C
ATOM 1815 CD1 ILE A 305 183.714 115.049 174.850 1.00 61.07 C
ATOM 1816 N VAL A 306 180.779 110.859 177.207 1.00 64.82 N
ATOM 1817 CA VAL A 306 179.586 110.029 177.204 1.00 64.82 C
ATOM 1818 C VAL A 306 178.608 110.570 176.170 1.00 64.82 C
ATOM 1819 O VAL A 306 178.685 111.724 175.744 1.00 64.82 O
ATOM 1820 CB VAL A 306 178.935 109.960 178.595 1.00 64.82 C
ATOM 1821 CG1 VAL A 306 179.822 109.192 179.548 1.00 64.82 C
ATOM 1822 CG2 VAL A 306 178.672 111.354 179.115 1.00 64.82 C
ATOM 1823 N SER A 307 177.668 109.717 175.765 1.00 69.98 N
ATOM 1824 CA SER A 307 176.735 110.086 174.707 1.00 69.98 C
ATOM 1825 C SER A 307 175.550 110.873 175.248 1.00 69.98 C
ATOM 1826 O SER A 307 175.066 111.801 174.590 1.00 69.98 O
ATOM 1827 CB SER A 307 176.249 108.832 173.983 1.00 69.98 C
ATOM 1828 OG SER A 307 177.325 108.157 173.359 1.00 69.98 O
ATOM 1829 N ASP A 308 175.072 110.522 176.439 1.00 70.06 N
ATOM 1830 CA ASP A 308 173.860 111.098 177.007 1.00 70.06 C
ATOM 1831 C ASP A 308 174.115 111.465 178.460 1.00 70.06 C
ATOM 1832 O ASP A 308 174.401 110.587 179.279 1.00 70.06 O
ATOM 1833 CB ASP A 308 172.694 110.113 176.904 1.00 70.06 C

ATOM 1834 CG ASP A 308 171.365 110.803 176.709 1.00 70.06 C
ATOM 1835 OD1 ASP A 308 171.341 112.049 176.660 1.00 70.06 O
ATOM 1836 OD2 ASP A 308 170.342 110.096 176.604 1.00 70.06 O
ATOM 1837 N PHE A 309 174.007 112.756 178.782 1.00 59.40 N
ATOM 1838 CA PHE A 309 174.088 113.174 180.176 1.00 59.40 C
ATOM 1839 C PHE A 309 172.731 112.986 180.837 1.00 59.40 C
ATOM 1840 O PHE A 309 172.236 113.883 181.523 1.00 59.40 O
ATOM 1841 CB PHE A 309 174.512 114.639 180.291 1.00 59.40 C
ATOM 1842 CG PHE A 309 175.863 114.936 179.716 1.00 59.40 C
ATOM 1843 CD1 PHE A 309 176.990 114.299 180.190 1.00 59.40 C
ATOM 1844 CD2 PHE A 309 176.006 115.874 178.711 1.00 59.40 C
ATOM 1845 CE1 PHE A 309 178.228 114.583 179.665 1.00 59.40 C
ATOM 1846 CE2 PHE A 309 177.242 116.160 178.185 1.00 59.40 C
ATOM 1847 CZ PHE A 309 178.353 115.514 178.662 1.00 59.40 C
ATOM 1848 N GLY A 310 172.129 111.821 180.641 1.00 68.78 N
ATOM 1849 CA GLY A 310 170.832 111.512 181.205 1.00 68.78 C
ATOM 1850 C GLY A 310 170.898 110.288 182.087 1.00 68.78 C
ATOM 1851 O GLY A 310 171.488 110.314 183.170 1.00 68.78 O
ATOM 1852 N ARG A 311 170.289 109.206 181.619 1.00 81.62 N
ATOM 1853 CA ARG A 311 170.332 107.912 182.280 1.00 81.62 C
ATOM 1854 C ARG A 311 171.759 107.583 182.698 1.00 81.62 C
ATOM 1855 O ARG A 311 172.716 108.043 182.064 1.00 81.62 O
ATOM 1856 CB ARG A 311 169.778 106.831 181.354 1.00 81.62 C
ATOM 1857 CG ARG A 311 170.239 106.976 179.917 1.00 81.62 C
ATOM 1858 CD ARG A 311 169.335 106.217 178.965 1.00 81.62 C
ATOM 1859 NE ARG A 311 169.880 106.184 177.613 1.00 81.62 N
ATOM 1860 CZ ARG A 311 170.707 105.246 177.167 1.00 81.62 C
ATOM 1861 NH1 ARG A 311 171.087 104.259 177.967 1.00 81.62 N
ATOM 1862 NH2 ARG A 311 171.156 105.293 175.921 1.00 81.62 N
ATOM 1863 N PRO A 312 171.940 106.804 183.759 1.00 83.32 N
ATOM 1864 CA PRO A 312 173.287 106.600 184.309 1.00 83.32 C
ATOM 1865 C PRO A 312 174.282 106.029 183.313 1.00 83.32 C
ATOM 1866 O PRO A 312 175.330 106.632 183.067 1.00 83.32 O
ATOM 1867 CB PRO A 312 173.046 105.623 185.468 1.00 83.32 C

ATOM 1868 CG PRO A 312 171.595 105.748 185.787 1.00 83.32 C
ATOM 1869 CD PRO A 312 170.920 106.037 184.489 1.00 83.32 C
ATOM 1870 N ASN A 313 173.972 104.874 182.732 1.00 86.86 N
ATOM 1871 CA ASN A 313 174.922 104.137 181.905 1.00 86.86 C
ATOM 1872 C ASN A 313 174.604 104.376 180.433 1.00 86.86 C
ATOM 1873 O ASN A 313 173.593 103.884 179.920 1.00 86.86 O
ATOM 1874 CB ASN A 313 174.884 102.648 182.241 1.00 86.86 C
ATOM 1875 CG ASN A 313 176.267 102.055 182.400 1.00 86.86 C
ATOM 1876 OD1 ASN A 313 177.169 102.334 181.612 1.00 86.86 O
ATOM 1877 ND2 ASN A 313 176.443 101.234 183.427 1.00 86.86 N
ATOM 1878 N SER A 314 175.469 105.127 179.757 1.00 80.87 N
ATOM 1879 CA SER A 314 175.348 105.424 178.339 1.00 80.87 C
ATOM 1880 C SER A 314 176.480 104.748 177.570 1.00 80.87 C
ATOM 1881 O SER A 314 177.272 103.981 178.128 1.00 80.87 O
ATOM 1882 CB SER A 314 175.337 106.937 178.117 1.00 80.87 C
ATOM 1883 OG SER A 314 174.274 107.550 178.820 1.00 80.87 O
ATOM 1884 N ALA A 315 176.554 105.034 176.273 1.00 73.95 N
ATOM 1885 CA ALA A 315 177.589 104.499 175.400 1.00 73.95 C
ATOM 1886 C ALA A 315 178.602 105.592 175.091 1.00 73.95 C
ATOM 1887 O ALA A 315 178.229 106.678 174.635 1.00 73.95 O
ATOM 1888 CB ALA A 315 176.986 103.953 174.106 1.00 73.95 C
ATOM 1889 N LEU A 316 179.876 105.300 175.333 1.00 71.05 N
ATOM 1890 CA LEU A 316 180.930 106.289 175.184 1.00 71.05 C
ATOM 1891 C LEU A 316 181.308 106.470 173.715 1.00 71.05 C
ATOM 1892 O LEU A 316 180.841 105.756 172.826 1.00 71.05 O
ATOM 1893 CB LEU A 316 182.156 105.889 176.001 1.00 71.05 C
ATOM 1894 CG LEU A 316 182.231 106.442 177.425 1.00 71.05 C
ATOM 1895 CD1 LEU A 316 181.014 106.024 178.224 1.00 71.05 C
ATOM 1896 CD2 LEU A 316 183.501 105.977 178.108 1.00 71.05 C
ATOM 1897 N GLU A 317 182.175 107.449 173.470 1.00 71.76 N
ATOM 1898 CA GLU A 317 182.666 107.747 172.134 1.00 71.76 C
ATOM 1899 C GLU A 317 183.894 108.633 172.265 1.00 71.76 C
ATOM 1900 O GLU A 317 184.022 109.394 173.226 1.00 71.76 O
ATOM 1901 CB GLU A 317 181.597 108.432 171.280 1.00 71.76 C

ATOM 1902 CG GLU A 317 181.559 109.935 171.443 1.00 71.76 C
ATOM 1903 CD GLU A 317 180.365 110.560 170.759 1.00 71.76 C
ATOM 1904 OE1 GLU A 317 179.373 109.840 170.527 1.00 71.76 O
ATOM 1905 OE2 GLU A 317 180.416 111.769 170.455 1.00 71.76 O
ATOM 1906 N THR A 318 184.791 108.531 171.292 1.00 67.17 N
ATOM 1907 CA THR A 318 186.074 109.213 171.349 1.00 67.17 C
ATOM 1908 C THR A 318 186.075 110.453 170.464 1.00 67.17 C
ATOM 1909 O THR A 318 185.226 110.624 169.587 1.00 67.17 O
ATOM 1910 CB THR A 318 187.203 108.269 170.927 1.00 67.17 C
ATOM 1911 OG1 THR A 318 187.009 106.989 171.540 1.00 67.17 O
ATOM 1912 CG2 THR A 318 188.548 108.824 171.357 1.00 67.17 C
ATOM 1913 N HIS A 319 187.047 111.327 170.713 1.00 64.28 N
ATOM 1914 CA HIS A 319 187.226 112.547 169.941 1.00 64.28 C
ATOM 1915 C HIS A 319 188.700 112.698 169.596 1.00 64.28 C
ATOM 1916 O HIS A 319 189.562 112.009 170.146 1.00 64.28 O
ATOM 1917 CB HIS A 319 186.731 113.778 170.706 1.00 64.28 C
ATOM 1918 CG HIS A 319 185.247 113.953 170.678 1.00 64.28 C
ATOM 1919 ND1 HIS A 319 184.638 115.039 170.088 1.00 64.28 N
ATOM 1920 CD2 HIS A 319 184.249 113.185 171.174 1.00 64.28 C
ATOM 1921 CE1 HIS A 319 183.328 114.931 170.219 1.00 64.28 C
ATOM 1922 NE2 HIS A 319 183.066 113.814 170.874 1.00 64.28 N
ATOM 1923 N ARG A 320 188.989 113.617 168.676 1.00 64.82 N
ATOM 1924 CA ARG A 320 190.363 113.846 168.247 1.00 64.82 C
ATOM 1925 C ARG A 320 191.034 114.953 169.053 1.00 64.82 C
ATOM 1926 O ARG A 320 192.121 114.751 169.603 1.00 64.82 O
ATOM 1927 CB ARG A 320 190.397 114.175 166.753 1.00 64.82 C
ATOM 1928 CG ARG A 320 191.734 113.891 166.086 1.00 64.82 C
ATOM 1929 CD ARG A 320 191.687 114.184 164.594 1.00 64.82 C
ATOM 1930 NE ARG A 320 191.570 115.612 164.315 1.00 64.82 N
ATOM 1931 CZ ARG A 320 192.605 116.433 164.175 1.00 64.82 C
ATOM 1932 NH1 ARG A 320 193.841 115.968 164.287 1.00 64.82 N
ATOM 1933 NH2 ARG A 320 192.404 117.719 163.921 1.00 64.82 N
ATOM 1934 N LEU A 321 190.408 116.122 169.130 1.00 59.61 N
ATOM 1935 CA LEU A 321 190.902 117.216 169.950 1.00 59.61 C

```
ATOM   1936  C   LEU A 321     189.747 117.843 170.717  1.00 59.61           C
ATOM   1937  O   LEU A 321     188.622 117.923 170.217  1.00 59.61           O
ATOM   1938  CB  LEU A 321     191.601 118.286 169.110  1.00 59.61           C
ATOM   1939  CG  LEU A 321     193.011 117.962 168.628  1.00 59.61           C
ATOM   1940  CD1 LEU A 321     193.667 119.208 168.069  1.00 59.61           C
ATOM   1941  CD2 LEU A 321     193.837 117.380 169.753  1.00 59.61           C
ATOM   1942  N   VAL A 322     190.037 118.294 171.936  1.00 50.89           N
ATOM   1943  CA  VAL A 322     189.055 118.958 172.783  1.00 50.89           C
ATOM   1944  C   VAL A 322     189.748 120.086 173.532  1.00 50.89           C
ATOM   1945  O   VAL A 322     190.840 119.902 174.077  1.00 50.89           O
ATOM   1946  CB  VAL A 322     188.396 117.976 173.768  1.00 50.89           C
ATOM   1947  CG1 VAL A 322     187.183 118.611 174.400  1.00 50.89           C
ATOM   1948  CG2 VAL A 322     188.014 116.698 173.062  1.00 50.89           C
ATOM   1949  N   ALA A 323     189.110 121.252 173.562  1.00 48.37           N
ATOM   1950  CA  ALA A 323     189.670 122.439 174.189  1.00 48.37           C
ATOM   1951  C   ALA A 323     188.926 122.763 175.479  1.00 48.37           C
ATOM   1952  O   ALA A 323     187.754 122.417 175.642  1.00 48.37           O
ATOM   1953  CB  ALA A 323     189.608 123.641 173.244  1.00 48.37           C
ATOM   1954  N   PHE A 324     189.619 123.436 176.395  1.00 45.08           N
ATOM   1955  CA  PHE A 324     189.053 123.805 177.687  1.00 45.08           C
ATOM   1956  C   PHE A 324     189.566 125.183 178.068  1.00 45.08           C
ATOM   1957  O   PHE A 324     190.759 125.347 178.331  1.00 45.08           O
ATOM   1958  CB  PHE A 324     189.425 122.786 178.768  1.00 45.08           C
ATOM   1959  CG  PHE A 324     188.667 121.493 178.681  1.00 45.08           C
ATOM   1960  CD1 PHE A 324     187.316 121.479 178.407  1.00 45.08           C
ATOM   1961  CD2 PHE A 324     189.310 120.288 178.892  1.00 45.08           C
ATOM   1962  CE1 PHE A 324     186.626 120.290 178.335  1.00 45.08           C
ATOM   1963  CE2 PHE A 324     188.622 119.101 178.820  1.00 45.08           C
ATOM   1964  CZ  PHE A 324     187.280 119.102 178.541  1.00 45.08           C
ATOM   1965  N   LEU A 325     188.672 126.165 178.105  1.00 45.08           N
ATOM   1966  CA  LEU A 325     189.008 127.537 178.480  1.00 45.08           C
ATOM   1967  C   LEU A 325     188.264 127.875 179.765  1.00 45.08           C
ATOM   1968  O   LEU A 325     187.051 128.095 179.744  1.00 45.08           O
ATOM   1969  CB  LEU A 325     188.650 128.511 177.364  1.00 45.08           C
```

ATOM 1970 CG LEU A 325 189.024 129.970 177.614 1.00 45.08 C
ATOM 1971 CD1 LEU A 325 189.284 130.693 176.315 1.00 45.08 C
ATOM 1972 CD2 LEU A 325 187.916 130.657 178.365 1.00 45.08 C
ATOM 1973 N GLU A 326 188.986 127.936 180.881 1.00 52.92 N
ATOM 1974 CA GLU A 326 188.372 128.125 182.192 1.00 52.92 C
ATOM 1975 C GLU A 326 188.360 129.607 182.542 1.00 52.92 C
ATOM 1976 O GLU A 326 189.408 130.198 182.811 1.00 52.92 O
ATOM 1977 CB GLU A 326 189.108 127.316 183.256 1.00 52.92 C
ATOM 1978 CG GLU A 326 190.588 127.594 183.343 1.00 52.92 C
ATOM 1979 CD GLU A 326 191.213 126.982 184.578 1.00 52.92 C
ATOM 1980 OE1 GLU A 326 190.586 127.049 185.655 1.00 52.92 O
ATOM 1981 OE2 GLU A 326 192.328 126.430 184.472 1.00 52.92 O
ATOM 1982 N ARG A 327 187.174 130.197 182.551 1.00 45.14 N
ATOM 1983 CA ARG A 327 186.991 131.598 182.898 1.00 45.14 C
ATOM 1984 C ARG A 327 186.735 131.712 184.402 1.00 45.14 C
ATOM 1985 O ARG A 327 186.955 130.761 185.156 1.00 45.14 O
ATOM 1986 CB ARG A 327 185.868 132.196 182.050 1.00 45.14 C
ATOM 1987 CG ARG A 327 185.884 131.729 180.613 1.00 45.14 C
ATOM 1988 CD ARG A 327 184.491 131.700 180.031 1.00 45.14 C
ATOM 1989 NE ARG A 327 184.062 133.025 179.603 1.00 45.14 N
ATOM 1990 CZ ARG A 327 182.833 133.310 179.191 1.00 45.14 C
ATOM 1991 NH1 ARG A 327 181.910 132.360 179.152 1.00 45.14 N
ATOM 1992 NH2 ARG A 327 182.526 134.544 178.820 1.00 45.14 N
ATOM 1993 N ALA A 328 186.283 132.880 184.858 1.00 50.67 N
ATOM 1994 CA ALA A 328 186.136 133.116 186.290 1.00 50.67 C
ATOM 1995 C ALA A 328 185.041 132.246 186.895 1.00 50.67 C
ATOM 1996 O ALA A 328 185.233 131.643 187.956 1.00 50.67 O
ATOM 1997 CB ALA A 328 185.845 134.593 186.547 1.00 50.67 C
ATOM 1998 N ASP A 329 183.882 132.169 186.239 1.00 51.23 N
ATOM 1999 CA ASP A 329 182.712 131.517 186.817 1.00 51.23 C
ATOM 2000 C ASP A 329 182.123 130.461 185.889 1.00 51.23 C
ATOM 2001 O ASP A 329 180.910 130.244 185.885 1.00 51.23 O
ATOM 2002 CB ASP A 329 181.646 132.550 187.171 1.00 51.23 C
ATOM 2003 CG ASP A 329 181.098 133.256 185.950 1.00 51.23 C

ATOM 2004 OD1 ASP A 329 180.270 132.656 185.236 1.00 51.23 O
ATOM 2005 OD2 ASP A 329 181.497 134.410 185.699 1.00 51.23 O
ATOM 2006 N SER A 330 182.957 129.801 185.091 1.00 45.18 N
ATOM 2007 CA SER A 330 182.470 128.739 184.222 1.00 45.18 C
ATOM 2008 C SER A 330 183.620 128.073 183.481 1.00 45.18 C
ATOM 2009 O SER A 330 184.779 128.456 183.652 1.00 45.18 O
ATOM 2010 CB SER A 330 181.440 129.285 183.234 1.00 45.18 C
ATOM 2011 OG SER A 330 182.003 130.287 182.411 1.00 45.18 O
ATOM 2012 N VAL A 331 183.311 127.066 182.670 1.00 39.54 N
ATOM 2013 CA VAL A 331 184.309 126.418 181.831 1.00 39.54 C
ATOM 2014 C VAL A 331 183.662 126.020 180.513 1.00 39.54 C
ATOM 2015 O VAL A 331 182.799 125.138 180.478 1.00 39.54 O
ATOM 2016 CB VAL A 331 184.921 125.198 182.540 1.00 39.54 C
ATOM 2017 CG1 VAL A 331 185.665 124.339 181.554 1.00 39.54 C
ATOM 2018 CG2 VAL A 331 185.846 125.644 183.642 1.00 39.54 C
ATOM 2019 N ILE A 332 184.066 126.663 179.422 1.00 36.52 N
ATOM 2020 CA ILE A 332 183.556 126.324 178.103 1.00 36.52 C
ATOM 2021 C ILE A 332 184.417 125.216 177.514 1.00 36.52 C
ATOM 2022 O ILE A 332 185.553 124.991 177.932 1.00 36.52 O
ATOM 2023 CB ILE A 332 183.513 127.551 177.174 1.00 36.52 C
ATOM 2024 CG1 ILE A 332 182.591 128.617 177.742 1.00 36.52 C
ATOM 2025 CG2 ILE A 332 182.999 127.172 175.813 1.00 36.52 C
ATOM 2026 CD1 ILE A 332 182.240 129.685 176.743 1.00 36.52 C
ATOM 2027 N SER A 333 183.874 124.511 176.527 1.00 37.04 N
ATOM 2028 CA SER A 333 184.588 123.382 175.939 1.00 37.04 C
ATOM 2029 C SER A 333 183.991 123.056 174.582 1.00 37.04 C
ATOM 2030 O SER A 333 182.777 122.875 174.469 1.00 37.04 O
ATOM 2031 CB SER A 333 184.521 122.172 176.854 1.00 37.04 C
ATOM 2032 OG SER A 333 184.839 120.992 176.146 1.00 37.04 O
ATOM 2033 N TRP A 334 184.838 122.985 173.563 1.00 44.72 N
ATOM 2034 CA TRP A 334 184.472 122.524 172.234 1.00 44.72 C
ATOM 2035 C TRP A 334 185.536 121.553 171.740 1.00 44.72 C
ATOM 2036 O TRP A 334 186.583 121.373 172.366 1.00 44.72 O
ATOM 2037 CB TRP A 334 184.320 123.699 171.263 1.00 44.72 C

ATOM 2038 CG TRP A 334 185.580 124.478 171.065 1.00 44.72 C
ATOM 2039 CD1 TRP A 334 186.526 124.265 170.114 1.00 44.72 C
ATOM 2040 CD2 TRP A 334 186.032 125.597 171.835 1.00 44.72 C
ATOM 2041 NE1 TRP A 334 187.542 125.179 170.242 1.00 44.72 N
ATOM 2042 CE2 TRP A 334 187.260 126.007 171.293 1.00 44.72 C
ATOM 2043 CE3 TRP A 334 185.517 126.290 172.929 1.00 44.72 C
ATOM 2044 CZ2 TRP A 334 187.979 127.075 171.806 1.00 44.72 C
ATOM 2045 CZ3 TRP A 334 186.233 127.350 173.436 1.00 44.72 C
ATOM 2046 CH2 TRP A 334 187.449 127.733 172.877 1.00 44.72 C
ATOM 2047 N ASP A 335 185.267 120.917 170.606 1.00 53.54 N
ATOM 2048 CA ASP A 335 186.226 120.023 169.973 1.00 53.54 C
ATOM 2049 C ASP A 335 186.752 120.677 168.705 1.00 53.54 C
ATOM 2050 O ASP A 335 185.970 121.166 167.884 1.00 53.54 O
ATOM 2051 CB ASP A 335 185.601 118.665 169.660 1.00 53.54 C
ATOM 2052 CG ASP A 335 184.237 118.786 169.042 1.00 53.54 C
ATOM 2053 OD1 ASP A 335 183.787 119.929 168.827 1.00 53.54 O
ATOM 2054 OD2 ASP A 335 183.611 117.740 168.774 1.00 53.54 O
ATOM 2055 N ILE A 336 188.075 120.685 168.555 1.00 58.48 N
ATOM 2056 CA ILE A 336 188.745 121.404 167.477 1.00 58.48 C
ATOM 2057 C ILE A 336 188.144 121.017 166.135 1.00 58.48 C
ATOM 2058 O ILE A 336 188.099 119.835 165.778 1.00 58.48 O
ATOM 2059 CB ILE A 336 190.257 121.135 167.495 1.00 58.48 C
ATOM 2060 CG1 ILE A 336 190.865 121.608 168.812 1.00 58.48 C
ATOM 2061 CG2 ILE A 336 190.918 121.838 166.339 1.00 58.48 C
ATOM 2062 CD1 ILE A 336 190.802 123.100 169.005 1.00 58.48 C
ATOM 2063 N GLN A 337 187.688 122.011 165.380 1.00 62.06 N
ATOM 2064 CA GLN A 337 187.055 121.776 164.090 1.00 62.06 C
ATOM 2065 C GLN A 337 188.128 121.533 163.032 1.00 62.06 C
ATOM 2066 O GLN A 337 189.309 121.356 163.338 1.00 62.06 O
ATOM 2067 CB GLN A 337 186.148 122.947 163.732 1.00 62.06 C
ATOM 2068 CG GLN A 337 185.157 123.298 164.818 1.00 62.06 C
ATOM 2069 CD GLN A 337 184.036 122.289 164.916 1.00 62.06 C
ATOM 2070 OE1 GLN A 337 183.412 122.136 165.963 1.00 62.06 O
ATOM 2071 NE2 GLN A 337 183.771 121.594 163.818 1.00 62.06 N

ATOM 2072 N ASN A 338 187.725 121.519 161.765 1.00 81.47 N
ATOM 2073 CA ASN A 338 188.640 121.262 160.664 1.00 81.47 C
ATOM 2074 C ASN A 338 188.481 122.333 159.593 1.00 81.47 C
ATOM 2075 O ASN A 338 187.527 123.115 159.600 1.00 81.47 O
ATOM 2076 CB ASN A 338 188.412 119.873 160.064 1.00 81.47 C
ATOM 2077 CG ASN A 338 188.929 118.770 160.957 1.00 81.47 C
ATOM 2078 OD1 ASN A 338 188.314 117.711 161.074 1.00 81.47 O
ATOM 2079 ND2 ASN A 338 190.066 119.012 161.597 1.00 81.47 N
ATOM 2080 N GLU A 339 189.433 122.350 158.663 1.00 88.17 N
ATOM 2081 CA GLU A 339 189.522 123.434 157.694 1.00 88.17 C
ATOM 2082 C GLU A 339 188.386 123.375 156.680 1.00 88.17 C
ATOM 2083 O GLU A 339 187.993 122.300 156.219 1.00 88.17 O
ATOM 2084 CB GLU A 339 190.868 123.381 156.975 1.00 88.17 C
ATOM 2085 CG GLU A 339 192.011 124.003 157.755 1.00 88.17 C
ATOM 2086 CD GLU A 339 191.946 125.517 157.773 1.00 88.17 C
ATOM 2087 OE1 GLU A 339 193.009 126.158 157.913 1.00 88.17 O
ATOM 2088 OE2 GLU A 339 190.833 126.066 157.647 1.00 88.17 O
ATOM 2089 N LYS A 340 187.862 124.547 156.330 1.00 89.84 N
ATOM 2090 CA LYS A 340 186.873 124.656 155.270 1.00 89.84 C
ATOM 2091 C LYS A 340 187.515 124.319 153.923 1.00 89.84 C
ATOM 2092 O LYS A 340 188.716 124.055 153.824 1.00 89.84 O
ATOM 2093 CB LYS A 340 186.267 126.056 155.256 1.00 89.84 C
ATOM 2094 CG LYS A 340 185.596 126.453 156.554 1.00 89.84 C
ATOM 2095 CD LYS A 340 184.304 125.691 156.770 1.00 89.84 C
ATOM 2096 CE LYS A 340 183.152 126.347 156.040 1.00 89.84 C
ATOM 2097 NZ LYS A 340 181.860 125.688 156.362 1.00 89.84 N
ATOM 2098 N ASN A 341 186.700 124.318 152.867 1.00112.01 N
ATOM 2099 CA ASN A 341 187.153 123.916 151.539 1.00112.01 C
ATOM 2100 C ASN A 341 187.078 125.036 150.508 1.00112.01 C
ATOM 2101 O ASN A 341 188.088 125.363 149.877 1.00112.01 O
ATOM 2102 CB ASN A 341 186.341 122.703 151.071 1.00112.01 C
ATOM 2103 CG ASN A 341 186.355 121.578 152.081 1.00112.01 C
ATOM 2104 OD1 ASN A 341 185.522 121.529 152.986 1.00112.01 O
ATOM 2105 ND2 ASN A 341 187.317 120.672 151.943 1.00112.01 N

ATOM 2106 N VAL A 342 185.903 125.631 150.305 1.00113.92 N
ATOM 2107 CA VAL A 342 185.722 126.643 149.269 1.00113.92 C
ATOM 2108 C VAL A 342 184.567 127.547 149.668 1.00113.92 C
ATOM 2109 O VAL A 342 183.559 127.089 150.212 1.00113.92 O
ATOM 2110 CB VAL A 342 185.461 125.998 147.887 1.00113.92 C
ATOM 2111 CG1 VAL A 342 184.286 125.035 147.965 1.00113.92 C
ATOM 2112 CG2 VAL A 342 185.207 127.066 146.836 1.00113.92 C
ATOM 2113 N THR A 343 184.709 128.841 149.381 1.00113.63 N
ATOM 2114 CA THR A 343 183.718 129.824 149.810 1.00113.63 C
ATOM 2115 C THR A 343 183.452 130.868 148.725 1.00113.63 C
ATOM 2116 O THR A 343 183.349 132.066 149.011 1.00113.63 O
ATOM 2117 CB THR A 343 184.165 130.512 151.101 1.00113.63 C
ATOM 2118 OG1 THR A 343 184.802 129.558 151.964 1.00113.63 O
ATOM 2119 CG2 THR A 343 182.980 131.121 151.819 1.00113.63 C
ATOM 2120 N CYS A 344 183.340 130.449 147.466 1.00112.61 N
ATOM 2121 CA CYS A 344 183.058 131.429 146.424 1.00112.61 C
ATOM 2122 C CYS A 344 181.697 132.071 146.674 1.00112.61 C
ATOM 2123 O CYS A 344 180.772 131.423 147.165 1.00112.61 O
ATOM 2124 CB CYS A 344 183.114 130.789 145.031 1.00112.61 C
ATOM 2125 SG CYS A 344 182.044 129.369 144.755 1.00112.61 S
ATOM 2126 N ALA A 345 181.583 133.354 146.334 1.00104.58 N
ATOM 2127 CA ALA A 345 180.441 134.180 146.733 1.00104.58 C
ATOM 2128 C ALA A 345 179.461 134.350 145.573 1.00104.58 C
ATOM 2129 O ALA A 345 179.538 135.299 144.792 1.00104.58 O
ATOM 2130 CB ALA A 345 180.919 135.531 147.251 1.00104.58 C
ATOM 2131 N LEU A 346 178.510 133.422 145.478 1.00101.94 N
ATOM 2132 CA LEU A 346 177.479 133.466 144.448 1.00101.94 C
ATOM 2133 C LEU A 346 176.112 133.300 145.094 1.00101.94 C
ATOM 2134 O LEU A 346 175.900 132.358 145.861 1.00101.94 O
ATOM 2135 CB LEU A 346 177.710 132.372 143.401 1.00101.94 C
ATOM 2136 CG LEU A 346 177.409 130.933 143.826 1.00101.94 C
ATOM 2137 CD1 LEU A 346 175.947 130.591 143.582 1.00101.94 C
ATOM 2138 CD2 LEU A 346 178.324 129.943 143.123 1.00101.94 C
ATOM 2139 N THR A 347 175.187 134.211 144.787 1.00 96.38 N

ATOM 2140 CA THR A 347 173.863 134.166 145.404 1.00 96.38 C
ATOM 2141 C THR A 347 172.694 134.350 144.446 1.00 96.38 C
ATOM 2142 O THR A 347 171.584 133.930 144.788 1.00 96.38 O
ATOM 2143 CB THR A 347 173.760 135.222 146.510 1.00 96.38 C
ATOM 2144 OG1 THR A 347 174.334 136.453 146.054 1.00 96.38 O
ATOM 2145 CG2 THR A 347 174.500 134.757 147.745 1.00 96.38 C
ATOM 2146 N PHE A 348 172.881 134.942 143.269 1.00 92.04 N
ATOM 2147 CA PHE A 348 171.777 135.298 142.377 1.00 92.04 C
ATOM 2148 C PHE A 348 170.803 136.249 143.076 1.00 92.04 C
ATOM 2149 O PHE A 348 169.637 135.934 143.315 1.00 92.04 O
ATOM 2150 CB PHE A 348 171.056 134.049 141.861 1.00 92.04 C
ATOM 2151 CG PHE A 348 169.901 134.350 140.947 1.00 92.04 C
ATOM 2152 CD1 PHE A 348 169.832 135.552 140.267 1.00 92.04 C
ATOM 2153 CD2 PHE A 348 168.882 133.433 140.775 1.00 92.04 C
ATOM 2154 CE1 PHE A 348 168.773 135.832 139.434 1.00 92.04 C
ATOM 2155 CE2 PHE A 348 167.819 133.707 139.940 1.00 92.04 C
ATOM 2156 CZ PHE A 348 167.766 134.908 139.268 1.00 92.04 C
ATOM 2157 N TRP A 349 171.314 137.436 143.403 1.00 91.20 N
ATOM 2158 CA TRP A 349 170.501 138.415 144.115 1.00 91.20 C
ATOM 2159 C TRP A 349 169.275 138.833 143.313 1.00 91.20 C
ATOM 2160 O TRP A 349 168.202 139.036 143.890 1.00 91.20 O
ATOM 2161 CB TRP A 349 171.346 139.637 144.469 1.00 91.20 C
ATOM 2162 CG TRP A 349 170.576 140.729 145.147 1.00 91.20 C
ATOM 2163 CD1 TRP A 349 170.100 140.726 146.424 1.00 91.20 C
ATOM 2164 CD2 TRP A 349 170.199 141.989 144.582 1.00 91.20 C
ATOM 2165 NE1 TRP A 349 169.448 141.905 146.690 1.00 91.20 N
ATOM 2166 CE2 TRP A 349 169.495 142.697 145.574 1.00 91.20 C
ATOM 2167 CE3 TRP A 349 170.388 142.587 143.333 1.00 91.20 C
ATOM 2168 CZ2 TRP A 349 168.978 143.972 145.356 1.00 91.20 C
ATOM 2169 CZ3 TRP A 349 169.875 143.852 143.119 1.00 91.20 C
ATOM 2170 CH2 TRP A 349 169.179 144.530 144.124 1.00 91.20 C
ATOM 2171 N GLU A 350 169.402 138.966 141.995 1.00 93.27 N
ATOM 2172 CA GLU A 350 168.308 139.487 141.180 1.00 93.27 C
ATOM 2173 C GLU A 350 168.626 139.223 139.714 1.00 93.27 C

ATOM 2174 O GLU A 350 169.763 138.910 139.351 1.00 93.27 O
ATOM 2175 CB GLU A 350 168.096 140.983 141.418 1.00 93.27 C
ATOM 2176 CG GLU A 350 166.826 141.545 140.811 1.00 93.27 C
ATOM 2177 CD GLU A 350 165.622 141.346 141.700 1.00 93.27 C
ATOM 2178 OE1 GLU A 350 165.714 140.550 142.657 1.00 93.27 O
ATOM 2179 OE2 GLU A 350 164.583 141.989 141.445 1.00 93.27 O
ATOM 2180 N ALA A 351 167.605 139.359 138.872 1.00 91.27 N
ATOM 2181 CA ALA A 351 167.794 139.199 137.433 1.00 91.27 C
ATOM 2182 C ALA A 351 166.639 139.865 136.709 1.00 91.27 C
ATOM 2183 O ALA A 351 165.493 139.425 136.840 1.00 91.27 O
ATOM 2184 CB ALA A 351 167.889 137.726 137.056 1.00 91.27 C
ATOM 2185 N SER A 352 166.935 140.905 135.941 1.00 91.46 N
ATOM 2186 CA SER A 352 165.924 141.583 135.150 1.00 91.46 C
ATOM 2187 C SER A 352 165.807 140.934 133.774 1.00 91.46 C
ATOM 2188 O SER A 352 166.615 140.089 133.385 1.00 91.46 O
ATOM 2189 CB SER A 352 166.255 143.067 135.020 1.00 91.46 C
ATOM 2190 OG SER A 352 165.542 143.649 133.946 1.00 91.46 O
ATOM 2191 N GLU A 353 164.777 141.341 133.031 1.00 93.87 N
ATOM 2192 CA GLU A 353 164.521 140.803 131.703 1.00 93.87 C
ATOM 2193 C GLU A 353 164.509 141.853 130.603 1.00 93.87 C
ATOM 2194 O GLU A 353 164.410 141.485 129.428 1.00 93.87 O
ATOM 2195 CB GLU A 353 163.184 140.047 131.680 1.00 93.87 C
ATOM 2196 CG GLU A 353 163.285 138.575 132.027 1.00 93.87 C
ATOM 2197 CD GLU A 353 161.930 137.910 132.116 1.00 93.87 C
ATOM 2198 OE1 GLU A 353 161.868 136.668 132.014 1.00 93.87 O
ATOM 2199 OE2 GLU A 353 160.925 138.630 132.294 1.00 93.87 O
ATOM 2200 N ARG A 354 164.588 143.138 130.942 1.00 93.93 N
ATOM 2201 CA ARG A 354 164.777 144.183 129.938 1.00 93.93 C
ATOM 2202 C ARG A 354 165.432 145.369 130.629 1.00 93.93 C
ATOM 2203 O ARG A 354 164.763 146.102 131.362 1.00 93.93 O
ATOM 2204 CB ARG A 354 163.456 144.583 129.295 1.00 93.93 C
ATOM 2205 CG ARG A 354 163.632 145.508 128.097 1.00 93.93 C
ATOM 2206 CD ARG A 354 162.428 146.411 127.889 1.00 93.93 C
ATOM 2207 NE ARG A 354 161.296 145.695 127.309 1.00 93.93 N

ATOM 2208 CZ ARG A 354 161.258 145.243 126.060 1.00 93.93 C
ATOM 2209 NH1 ARG A 354 162.294 145.430 125.253 1.00 93.93 N
ATOM 2210 NH2 ARG A 354 160.185 144.603 125.617 1.00 93.93 N
ATOM 2211 N THR A 355 166.726 145.557 130.392 1.00 91.70 N
ATOM 2212 CA THR A 355 167.496 146.625 131.008 1.00 91.70 C
ATOM 2213 C THR A 355 167.954 147.619 129.949 1.00 91.70 C
ATOM 2214 O THR A 355 167.818 147.391 128.745 1.00 91.70 O
ATOM 2215 CB THR A 355 168.709 146.069 131.760 1.00 91.70 C
ATOM 2216 OG1 THR A 355 169.269 147.097 132.584 1.00 91.70 O
ATOM 2217 CG2 THR A 355 169.760 145.592 130.778 1.00 91.70 C
ATOM 2218 N ILE A 356 168.507 148.735 130.416 1.00 91.75 N
ATOM 2219 CA ILE A 356 169.000 149.800 129.553 1.00 91.75 C
ATOM 2220 C ILE A 356 170.356 150.250 130.075 1.00 91.75 C
ATOM 2221 O ILE A 356 170.502 150.538 131.267 1.00 91.75 O
ATOM 2222 CB ILE A 356 168.021 150.985 129.496 1.00 91.75 C
ATOM 2223 CG1 ILE A 356 166.638 150.508 129.058 1.00 91.75 C
ATOM 2224 CG2 ILE A 356 168.534 152.040 128.549 1.00 91.75 C
ATOM 2225 CD1 ILE A 356 165.614 151.609 128.979 1.00 91.75 C
ATOM 2226 N ARG A 357 171.344 150.310 129.187 1.00 92.35 N
ATOM 2227 CA ARG A 357 172.718 150.637 129.549 1.00 92.35 C
ATOM 2228 C ARG A 357 173.110 151.933 128.857 1.00 92.35 C
ATOM 2229 O ARG A 357 173.090 152.010 127.625 1.00 92.35 O
ATOM 2230 CB ARG A 357 173.665 149.504 129.157 1.00 92.35 C
ATOM 2231 CG ARG A 357 175.116 149.751 129.498 1.00 92.35 C
ATOM 2232 CD ARG A 357 175.853 150.347 128.320 1.00 92.35 C
ATOM 2233 NE ARG A 357 176.039 149.388 127.237 1.00 92.35 N
ATOM 2234 CZ ARG A 357 176.988 148.461 127.219 1.00 92.35 C
ATOM 2235 NH1 ARG A 357 177.091 147.633 126.190 1.00 92.35 N
ATOM 2236 NH2 ARG A 357 177.833 148.357 128.232 1.00 92.35 N
ATOM 2237 N SER A 358 173.465 152.946 129.646 1.00100.09 N
ATOM 2238 CA SER A 358 173.799 154.273 129.129 1.00100.09 C
ATOM 2239 C SER A 358 175.161 154.691 129.675 1.00100.09 C
ATOM 2240 O SER A 358 175.280 155.046 130.851 1.00100.09 O
ATOM 2241 CB SER A 358 172.727 155.288 129.504 1.00100.09 C

ATOM 2242 OG SER A 358 172.957 155.812 130.799 1.00100.09 O
ATOM 2243 N GLU A 359 176.180 154.656 128.822 1.00111.58 N
ATOM 2244 CA GLU A 359 177.529 155.049 129.211 1.00111.58 C
ATOM 2245 C GLU A 359 177.655 156.564 129.142 1.00111.58 C
ATOM 2246 O GLU A 359 177.446 157.156 128.079 1.00111.58 O
ATOM 2247 CB GLU A 359 178.553 154.390 128.292 1.00111.58 C
ATOM 2248 CG GLU A 359 178.322 154.687 126.820 1.00111.58 C
ATOM 2249 CD GLU A 359 179.583 154.554 125.992 1.00111.58 C
ATOM 2250 OE1 GLU A 359 180.661 154.941 126.488 1.00111.58 O
ATOM 2251 OE2 GLU A 359 179.495 154.063 124.847 1.00111.58 O
ATOM 2252 N ALA A 360 177.994 157.201 130.265 1.00116.44 N
ATOM 2253 CA ALA A 360 178.053 158.656 130.243 1.00116.44 C
ATOM 2254 C ALA A 360 179.457 159.201 129.997 1.00116.44 C
ATOM 2255 O ALA A 360 179.718 159.773 128.934 1.00116.44 O
ATOM 2256 CB ALA A 360 177.499 159.219 131.554 1.00116.44 C
ATOM 2257 N GLU A 361 180.376 159.021 130.947 1.00117.36 N
ATOM 2258 CA GLU A 361 181.729 159.537 130.751 1.00117.36 C
ATOM 2259 C GLU A 361 182.790 158.453 130.899 1.00117.36 C
ATOM 2260 O GLU A 361 183.662 158.302 130.038 1.00117.36 O
ATOM 2261 CB GLU A 361 182.018 160.686 131.723 1.00117.36 C
ATOM 2262 CG GLU A 361 181.992 160.314 133.200 1.00117.36 C
ATOM 2263 CD GLU A 361 180.609 159.944 133.691 1.00117.36 C
ATOM 2264 OE1 GLU A 361 179.624 160.335 133.032 1.00117.36 O
ATOM 2265 OE2 GLU A 361 180.505 159.264 134.733 1.00117.36 O
ATOM 2266 N ASP A 362 182.723 157.700 131.998 1.00114.07 N
ATOM 2267 CA ASP A 362 183.701 156.660 132.283 1.00114.07 C
ATOM 2268 C ASP A 362 183.062 155.443 132.935 1.00114.07 C
ATOM 2269 O ASP A 362 183.786 154.540 133.371 1.00114.07 O
ATOM 2270 CB ASP A 362 184.822 157.203 133.178 1.00114.07 C
ATOM 2271 CG ASP A 362 184.317 157.679 134.530 1.00114.07 C
ATOM 2272 OD1 ASP A 362 183.425 157.024 135.111 1.00114.07 O
ATOM 2273 OD2 ASP A 362 184.820 158.712 135.020 1.00114.07 O
ATOM 2274 N SER A 363 181.739 155.402 133.029 1.00109.91 N
ATOM 2275 CA SER A 363 181.034 154.324 133.706 1.00109.91 C

ATOM 2276 C SER A 363 179.793 154.005 132.882 1.00109.91 C
ATOM 2277 O SER A 363 179.664 154.415 131.724 1.00109.91 O
ATOM 2278 CB SER A 363 180.713 154.723 135.154 1.00109.91 C
ATOM 2279 OG SER A 363 181.878 155.158 135.830 1.00109.91 O
ATOM 2280 N TYR A 364 178.867 153.261 133.475 1.00101.53 N
ATOM 2281 CA TYR A 364 177.613 152.917 132.829 1.00101.53 C
ATOM 2282 C TYR A 364 176.468 153.234 133.780 1.00101.53 C
ATOM 2283 O TYR A 364 176.669 153.749 134.883 1.00101.53 O
ATOM 2284 CB TYR A 364 177.598 151.444 132.411 1.00101.53 C
ATOM 2285 CG TYR A 364 178.677 151.089 131.417 1.00101.53 C
ATOM 2286 CD1 TYR A 364 179.956 150.774 131.838 1.00101.53 C
ATOM 2287 CD2 TYR A 364 178.414 151.068 130.059 1.00101.53 C
ATOM 2288 CE1 TYR A 364 180.942 150.447 130.933 1.00101.53 C
ATOM 2289 CE2 TYR A 364 179.394 150.746 129.148 1.00101.53 C
ATOM 2290 CZ TYR A 364 180.655 150.434 129.590 1.00101.53 C
ATOM 2291 OH TYR A 364 181.635 150.111 128.682 1.00101.53 O
ATOM 2292 N HIS A 365 175.250 152.928 133.342 1.00 99.68 N
ATOM 2293 CA HIS A 365 174.063 153.157 134.165 1.00 99.68 C
ATOM 2294 C HIS A 365 173.060 152.055 133.822 1.00 99.68 C
ATOM 2295 O HIS A 365 172.282 152.178 132.875 1.00 99.68 O
ATOM 2296 CB HIS A 365 173.480 154.542 133.929 1.00 99.68 C
ATOM 2297 CG HIS A 365 174.255 155.643 134.582 1.00 99.68 C
ATOM 2298 ND1 HIS A 365 174.924 155.477 135.774 1.00 99.68 N
ATOM 2299 CD2 HIS A 365 174.466 156.927 134.208 1.00 99.68 C
ATOM 2300 CE1 HIS A 365 175.514 156.611 136.108 1.00 99.68 C
ATOM 2301 NE2 HIS A 365 175.251 157.507 135.174 1.00 99.68 N
ATOM 2302 N PHE A 366 173.093 150.982 134.602 1.00 94.58 N
ATOM 2303 CA PHE A 366 172.177 149.867 134.419 1.00 94.58 C
ATOM 2304 C PHE A 366 170.900 150.152 135.197 1.00 94.58 C
ATOM 2305 O PHE A 366 170.924 150.233 136.429 1.00 94.58 O
ATOM 2306 CB PHE A 366 172.818 148.562 134.883 1.00 94.58 C
ATOM 2307 CG PHE A 366 174.034 148.174 134.096 1.00 94.58 C
ATOM 2308 CD1 PHE A 366 173.913 147.459 132.919 1.00 94.58 C
ATOM 2309 CD2 PHE A 366 175.298 148.520 134.536 1.00 94.58 C

ATOM 2310 CE1 PHE A 366 175.028 147.099 132.197 1.00 94.58 C
ATOM 2311 CE2 PHE A 366 176.416 148.161 133.817 1.00 94.58 C
ATOM 2312 CZ PHE A 366 176.281 147.451 132.646 1.00 94.58 C
ATOM 2313 N SER A 367 169.789 150.307 134.479 1.00 94.04 N
ATOM 2314 CA SER A 367 168.503 150.671 135.073 1.00 94.04 C
ATOM 2315 C SER A 367 167.452 149.678 134.591 1.00 94.04 C
ATOM 2316 O SER A 367 166.868 149.858 133.519 1.00 94.04 O
ATOM 2317 CB SER A 367 168.127 152.102 134.717 1.00 94.04 C
ATOM 2318 OG SER A 367 167.649 152.178 133.388 1.00 94.04 O
ATOM 2319 N SER A 368 167.213 148.636 135.384 1.00 97.62 N
ATOM 2320 CA SER A 368 166.175 147.668 135.058 1.00 97.62 C
ATOM 2321 C SER A 368 164.855 148.381 134.804 1.00 97.62 C
ATOM 2322 O SER A 368 164.484 149.311 135.524 1.00 97.62 O
ATOM 2323 CB SER A 368 166.022 146.652 136.190 1.00 97.62 C
ATOM 2324 OG SER A 368 166.063 147.292 137.452 1.00 97.62 O
ATOM 2325 N ALA A 369 164.129 147.924 133.791 1.00 97.90 N
ATOM 2326 CA ALA A 369 162.843 148.514 133.458 1.00 97.90 C
ATOM 2327 C ALA A 369 161.769 147.976 134.380 1.00 97.90 C
ATOM 2328 O ALA A 369 160.640 147.772 133.967 1.00 97.90 O
ATOM 2329 CB ALA A 369 162.486 148.238 132.013 1.00 97.90 C
ATOM 2330 N LYS A 370 162.143 147.725 135.627 1.00100.37 N
ATOM 2331 CA LYS A 370 161.220 147.231 136.648 1.00100.37 C
ATOM 2332 C LYS A 370 161.238 148.138 137.869 1.00100.37 C
ATOM 2333 O LYS A 370 160.553 147.874 138.841 1.00100.37 O
ATOM 2334 CB LYS A 370 161.597 145.819 137.090 1.00100.37 C
ATOM 2335 CG LYS A 370 161.388 144.750 136.038 1.00100.37 C
ATOM 2336 CD LYS A 370 161.257 143.385 136.681 1.00100.37 C
ATOM 2337 CE LYS A 370 160.039 142.654 136.149 1.00100.37 C
ATOM 2338 NZ LYS A 370 158.828 142.925 136.966 1.00100.37 N
ATOM 2339 N MET A 371 162.019 149.213 137.791 1.00101.97 N
ATOM 2340 CA MET A 371 162.188 150.201 138.854 1.00101.97 C
ATOM 2341 C MET A 371 162.696 149.621 140.185 1.00101.97 C
ATOM 2342 O MET A 371 162.362 150.127 141.249 1.00101.97 O
ATOM 2343 CB MET A 371 160.921 151.057 139.050 1.00101.97 C

ATOM 2344 CG MET A 371 160.091 151.327 137.800 1.00101.97 C
ATOM 2345 SD MET A 371 160.926 152.252 136.498 1.00101.97 S
ATOM 2346 CE MET A 371 159.798 152.046 135.126 1.00101.97 C
ATOM 2347 N THR A 372 163.533 148.588 140.125 1.00 97.73 N
ATOM 2348 CA THR A 372 164.055 147.972 141.344 1.00 97.73 C
ATOM 2349 C THR A 372 165.568 147.876 141.487 1.00 97.73 C
ATOM 2350 O THR A 372 166.041 147.483 142.547 1.00 97.73 O
ATOM 2351 CB THR A 372 163.552 146.538 141.506 1.00 97.73 C
ATOM 2352 OG1 THR A 372 164.204 145.702 140.549 1.00 97.73 O
ATOM 2353 CG2 THR A 372 162.072 146.468 141.302 1.00 97.73 C
ATOM 2354 N ALA A 373 166.326 148.210 140.447 1.00 99.02 N
ATOM 2355 CA ALA A 373 167.781 148.118 140.520 1.00 99.02 C
ATOM 2356 C ALA A 373 168.506 148.988 139.507 1.00 99.02 C
ATOM 2357 O ALA A 373 168.485 148.689 138.326 1.00 99.02 O
ATOM 2358 CB ALA A 373 168.223 146.672 140.338 1.00 99.02 C
ATOM 2359 N THR A 374 169.130 150.075 139.964 1.00 97.26 N
ATOM 2360 CA THR A 374 169.910 150.967 139.102 1.00 97.26 C
ATOM 2361 C THR A 374 171.235 151.293 139.784 1.00 97.26 C
ATOM 2362 O THR A 374 171.223 151.911 140.835 1.00 97.26 O
ATOM 2363 CB THR A 374 169.203 152.316 138.813 1.00 97.26 C
ATOM 2364 OG1 THR A 374 169.501 153.268 139.842 1.00 97.26 O
ATOM 2365 CG2 THR A 374 167.698 152.171 138.696 1.00 97.26 C
ATOM 2366 N PHE A 375 172.370 150.913 139.199 1.00 97.47 N
ATOM 2367 CA PHE A 375 173.668 151.209 139.817 1.00 97.47 C
ATOM 2368 C PHE A 375 174.649 151.944 138.907 1.00 97.47 C
ATOM 2369 O PHE A 375 174.247 152.566 137.938 1.00 97.47 O
ATOM 2370 CB PHE A 375 174.314 149.930 140.318 1.00 97.47 C
ATOM 2371 CG PHE A 375 173.700 148.691 139.761 1.00 97.47 C
ATOM 2372 CD1 PHE A 375 172.528 148.194 140.283 1.00 97.47 C
ATOM 2373 CD2 PHE A 375 174.301 148.022 138.726 1.00 97.47 C
ATOM 2374 CE1 PHE A 375 171.957 147.053 139.777 1.00 97.47 C
ATOM 2375 CE2 PHE A 375 173.741 146.878 138.214 1.00 97.47 C
ATOM 2376 CZ PHE A 375 172.565 146.393 138.739 1.00 97.47 C
ATOM 2377 N LEU A 376 175.936 151.894 139.242 1.00 98.78 N

ATOM 2378 CA LEU A 376 176.968 152.536 138.429 1.00 98.78 C
ATOM 2379 C LEU A 376 178.208 151.648 138.444 1.00 98.78 C
ATOM 2380 O LEU A 376 178.916 151.577 139.451 1.00 98.78 O
ATOM 2381 CB LEU A 376 177.278 153.935 138.949 1.00 98.78 C
ATOM 2382 CG LEU A 376 178.108 154.856 138.056 1.00 98.78 C
ATOM 2383 CD1 LEU A 376 177.934 156.301 138.485 1.00 98.78 C
ATOM 2384 CD2 LEU A 376 179.571 154.463 138.100 1.00 98.78 C
ATOM 2385 N SER A 377 178.466 150.981 137.326 1.00102.69 N
ATOM 2386 CA SER A 377 179.618 150.105 137.191 1.00102.69 C
ATOM 2387 C SER A 377 180.818 150.899 136.678 1.00102.69 C
ATOM 2388 O SER A 377 180.808 152.132 136.637 1.00102.69 O
ATOM 2389 CB SER A 377 179.288 148.934 136.273 1.00102.69 C
ATOM 2390 OG SER A 377 180.472 148.364 135.746 1.00102.69 O
ATOM 2391 N LYS A 378 181.872 150.191 136.284 1.00105.58 N
ATOM 2392 CA LYS A 378 183.085 150.806 135.762 1.00105.58 C
ATOM 2393 C LYS A 378 183.444 150.144 134.442 1.00105.58 C
ATOM 2394 O LYS A 378 183.429 148.914 134.338 1.00105.58 O
ATOM 2395 CB LYS A 378 184.242 150.679 136.757 1.00105.58 C
ATOM 2396 CG LYS A 378 184.226 151.722 137.862 1.00105.58 C
ATOM 2397 CD LYS A 378 185.444 151.593 138.760 1.00105.58 C
ATOM 2398 CE LYS A 378 186.676 151.189 137.969 1.00105.58 C
ATOM 2399 NZ LYS A 378 186.919 152.098 136.816 1.00105.58 N
ATOM 2400 N LYS A 379 183.781 150.959 133.443 1.00110.70 N
ATOM 2401 CA LYS A 379 183.996 150.478 132.078 1.00110.70 C
ATOM 2402 C LYS A 379 185.328 149.738 132.003 1.00110.70 C
ATOM 2403 O LYS A 379 186.352 150.266 131.564 1.00110.70 O
ATOM 2404 CB LYS A 379 183.952 151.635 131.089 1.00110.70 C
ATOM 2405 CG LYS A 379 184.880 152.785 131.434 1.00110.70 C
ATOM 2406 CD LYS A 379 184.899 153.824 130.326 1.00110.70 C
ATOM 2407 CE LYS A 379 183.490 154.236 129.936 1.00110.70 C
ATOM 2408 NZ LYS A 379 183.486 155.168 128.777 1.00110.70 N
ATOM 2409 N GLN A 380 185.306 148.480 132.435 1.00109.74 N
ATOM 2410 CA GLN A 380 186.497 147.639 132.370 1.00109.74 C
ATOM 2411 C GLN A 380 186.055 146.184 132.438 1.00109.74 C

ATOM 2412 O GLN A 380 185.563 145.739 133.480 1.00109.74 O
ATOM 2413 CB GLN A 380 187.459 147.976 133.501 1.00109.74 C
ATOM 2414 CG GLN A 380 188.436 149.088 133.176 1.00109.74 C
ATOM 2415 CD GLN A 380 189.472 148.668 132.156 1.00109.74 C
ATOM 2416 OE1 GLN A 380 189.321 147.647 131.486 1.00109.74 O
ATOM 2417 NE2 GLN A 380 190.535 149.454 132.033 1.00109.74 N
ATOM 2418 N GLU A 381 186.224 145.453 131.339 1.00107.99 N
ATOM 2419 CA GLU A 381 185.965 144.022 131.363 1.00107.99 C
ATOM 2420 C GLU A 381 186.790 143.370 132.463 1.00107.99 C
ATOM 2421 O GLU A 381 187.874 143.841 132.814 1.00107.99 O
ATOM 2422 CB GLU A 381 186.294 143.395 130.008 1.00107.99 C
ATOM 2423 CG GLU A 381 185.352 143.805 128.891 1.00107.99 C
ATOM 2424 CD GLU A 381 184.163 142.875 128.756 1.00107.99 C
ATOM 2425 OE1 GLU A 381 184.301 141.679 129.086 1.00107.99 O
ATOM 2426 OE2 GLU A 381 183.090 143.340 128.317 1.00107.99 O
ATOM 2427 N VAL A 382 186.269 142.278 133.015 1.00111.53 N
ATOM 2428 CA VAL A 382 186.912 141.639 134.157 1.00111.53 C
ATOM 2429 C VAL A 382 187.320 140.219 133.787 1.00111.53 C
ATOM 2430 O VAL A 382 187.300 139.315 134.628 1.00111.53 O
ATOM 2431 CB VAL A 382 185.997 141.662 135.397 1.00111.53 C
ATOM 2432 CG1 VAL A 382 184.706 140.920 135.126 1.00111.53 C
ATOM 2433 CG2 VAL A 382 186.715 141.100 136.615 1.00111.53 C
ATOM 2434 N ASN A 383 187.687 140.010 132.522 1.00122.87 N
ATOM 2435 CA ASN A 383 188.293 138.754 132.087 1.00122.87 C
ATOM 2436 C ASN A 383 187.362 137.570 132.367 1.00122.87 C
ATOM 2437 O ASN A 383 187.622 136.715 133.214 1.00122.87 O
ATOM 2438 CB ASN A 383 189.657 138.559 132.756 1.00122.87 C
ATOM 2439 CG ASN A 383 190.693 139.541 132.257 1.00122.87 C
ATOM 2440 OD1 ASN A 383 190.786 139.804 131.059 1.00122.87 O
ATOM 2441 ND2 ASN A 383 191.474 140.097 133.175 1.00122.87 N
ATOM 2442 N MET A 384 186.255 137.557 131.626 1.00116.33 N
ATOM 2443 CA MET A 384 185.201 136.561 131.797 1.00116.33 C
ATOM 2444 C MET A 384 185.750 135.149 131.968 1.00116.33 C
ATOM 2445 O MET A 384 185.094 134.298 132.576 1.00116.33 O

ATOM 2446 CB MET A 384 184.245 136.600 130.603 1.00116.33 C
ATOM 2447 CG MET A 384 183.462 135.314 130.378 1.00116.33 C
ATOM 2448 SD MET A 384 182.080 135.116 131.514 1.00116.33 S
ATOM 2449 CE MET A 384 181.193 133.777 130.726 1.00116.33 C
ATOM 2450 N SER A 385 186.946 134.884 131.441 1.00128.41 N
ATOM 2451 CA SER A 385 187.591 133.585 131.587 1.00128.41 C
ATOM 2452 C SER A 385 188.683 133.596 132.654 1.00128.41 C
ATOM 2453 O SER A 385 189.692 132.895 132.518 1.00128.41 O
ATOM 2454 CB SER A 385 188.159 133.125 130.245 1.00128.41 C
ATOM 2455 OG SER A 385 187.219 133.317 129.203 1.00128.41 O
ATOM 2456 N ASP A 386 188.497 134.374 133.715 1.00124.81 N
ATOM 2457 CA ASP A 386 189.480 134.489 134.781 1.00124.81 C
ATOM 2458 C ASP A 386 189.194 133.480 135.891 1.00124.81 C
ATOM 2459 O ASP A 386 188.108 132.904 135.984 1.00124.81 O
ATOM 2460 CB ASP A 386 189.493 135.914 135.336 1.00124.81 C
ATOM 2461 CG ASP A 386 190.637 136.157 136.298 1.00124.81 C
ATOM 2462 OD1 ASP A 386 190.675 135.495 137.356 1.00124.81 O
ATOM 2463 OD2 ASP A 386 191.499 137.007 135.994 1.00124.81 O
ATOM 2464 N SER A 387 190.198 133.267 136.741 1.00126.07 N
ATOM 2465 CA SER A 387 190.119 132.311 137.844 1.00126.07 C
ATOM 2466 C SER A 387 189.805 133.079 139.125 1.00126.07 C
ATOM 2467 O SER A 387 190.634 133.202 140.027 1.00126.07 O
ATOM 2468 CB SER A 387 191.419 131.519 137.969 1.00126.07 C
ATOM 2469 OG SER A 387 192.544 132.379 137.970 1.00126.07 O
ATOM 2470 N ALA A 388 188.583 133.598 139.196 1.00121.05 N
ATOM 2471 CA ALA A 388 188.059 134.184 140.421 1.00121.05 C
ATOM 2472 C ALA A 388 186.619 133.797 140.703 1.00121.05 C
ATOM 2473 O ALA A 388 186.150 134.026 141.821 1.00121.05 O
ATOM 2474 CB ALA A 388 188.163 135.713 140.377 1.00121.05 C
ATOM 2475 N LEU A 389 185.900 133.228 139.730 1.00116.48 N
ATOM 2476 CA LEU A 389 184.510 132.822 139.895 1.00116.48 C
ATOM 2477 C LEU A 389 184.242 131.458 139.265 1.00116.48 C
ATOM 2478 O LEU A 389 183.082 131.135 138.972 1.00116.48 O
ATOM 2479 CB LEU A 389 183.573 133.876 139.291 1.00116.48 C

ATOM 2480 CG LEU A 389 183.921 134.312 137.866 1.00116.48 C
ATOM 2481 CD1 LEU A 389 183.393 133.326 136.836 1.00116.48 C
ATOM 2482 CD2 LEU A 389 183.395 135.711 137.592 1.00116.48 C
ATOM 2483 N ASP A 390 185.288 130.655 139.051 1.00116.13 N
ATOM 2484 CA ASP A 390 185.180 129.404 138.310 1.00116.13 C
ATOM 2485 C ASP A 390 184.081 128.496 138.837 1.00116.13 C
ATOM 2486 O ASP A 390 183.620 127.616 138.102 1.00116.13 O
ATOM 2487 CB ASP A 390 186.527 128.680 138.341 1.00116.13 C
ATOM 2488 CG ASP A 390 187.585 129.394 137.526 1.00116.13 C
ATOM 2489 OD1 ASP A 390 187.222 130.039 136.519 1.00116.13 O
ATOM 2490 OD2 ASP A 390 188.776 129.314 137.891 1.00116.13 O
ATOM 2491 N CYS A 391 183.646 128.686 140.080 1.00113.78 N
ATOM 2492 CA CYS A 391 182.561 127.867 140.600 1.00113.78 C
ATOM 2493 C CYS A 391 181.248 128.232 139.919 1.00113.78 C
ATOM 2494 O CYS A 391 180.639 127.400 139.240 1.00113.78 O
ATOM 2495 CB CYS A 391 182.477 128.006 142.126 1.00113.78 C
ATOM 2496 SG CYS A 391 181.684 129.479 142.766 1.00113.78 S
ATOM 2497 N VAL A 392 180.808 129.479 140.064 1.00109.58 N
ATOM 2498 CA VAL A 392 179.650 129.978 139.296 1.00109.58 C
ATOM 2499 C VAL A 392 180.214 130.646 138.046 1.00109.58 C
ATOM 2500 O VAL A 392 180.411 131.860 137.970 1.00109.58 O
ATOM 2501 CB VAL A 392 178.756 130.907 140.126 1.00109.58 C
ATOM 2502 CG1 VAL A 392 179.486 132.189 140.485 1.00109.58 C
ATOM 2503 CG2 VAL A 392 177.480 131.223 139.370 1.00109.58 C
ATOM 2504 N ARG A 393 180.491 129.822 137.033 1.00107.49 N
ATOM 2505 CA ARG A 393 180.866 130.343 135.725 1.00107.49 C
ATOM 2506 C ARG A 393 180.235 129.545 134.591 1.00107.49 C
ATOM 2507 O ARG A 393 180.528 129.820 133.421 1.00107.49 O
ATOM 2508 CB ARG A 393 182.389 130.369 135.557 1.00107.49 C
ATOM 2509 CG ARG A 393 182.864 131.190 134.369 1.00107.49 C
ATOM 2510 CD ARG A 393 184.337 130.958 134.083 1.00107.49 C
ATOM 2511 NE ARG A 393 184.591 129.605 133.601 1.00107.49 N
ATOM 2512 CZ ARG A 393 184.223 129.160 132.404 1.00107.49 C
ATOM 2513 NH1 ARG A 393 184.492 127.913 132.041 1.00107.49 N

ATOM 2514 NH2 ARG A 393 183.581 129.962 131.567 1.00107.49 N
ATOM 2515 N ASP A 394 179.390 128.564 134.897 1.00101.94 N
ATOM 2516 CA ASP A 394 178.677 127.824 133.867 1.00101.94 C
ATOM 2517 C ASP A 394 177.202 127.680 134.215 1.00101.94 C
ATOM 2518 O ASP A 394 176.490 126.927 133.540 1.00101.94 O
ATOM 2519 CB ASP A 394 179.305 126.442 133.659 1.00101.94 C
ATOM 2520 CG ASP A 394 178.805 125.756 132.404 1.00101.94 C
ATOM 2521 OD1 ASP A 394 179.299 126.094 131.311 1.00101.94 O
ATOM 2522 OD2 ASP A 394 177.915 124.886 132.509 1.00101.94 O
ATOM 2523 N GLU A 395 176.727 128.373 135.247 1.00 99.53 N
ATOM 2524 CA GLU A 395 175.329 128.342 135.654 1.00 99.53 C
ATOM 2525 C GLU A 395 174.562 129.563 135.167 1.00 99.53 C
ATOM 2526 O GLU A 395 173.490 129.426 134.573 1.00 99.53 O
ATOM 2527 CB GLU A 395 175.231 128.240 137.181 1.00 99.53 C
ATOM 2528 CG GLU A 395 173.907 128.710 137.759 1.00 99.53 C
ATOM 2529 CD GLU A 395 172.723 127.986 137.162 1.00 99.53 C
ATOM 2530 OE1 GLU A 395 172.933 126.950 136.496 1.00 99.53 O
ATOM 2531 OE2 GLU A 395 171.582 128.453 137.358 1.00 99.53 O
ATOM 2532 N ALA A 396 175.092 130.761 135.414 1.00 96.08 N
ATOM 2533 CA ALA A 396 174.423 131.969 134.946 1.00 96.08 C
ATOM 2534 C ALA A 396 174.208 131.932 133.440 1.00 96.08 C
ATOM 2535 O ALA A 396 173.194 132.428 132.940 1.00 96.08 O
ATOM 2536 CB ALA A 396 175.230 133.203 135.344 1.00 96.08 C
ATOM 2537 N ILE A 397 175.150 131.346 132.700 1.00 95.14 N
ATOM 2538 CA ILE A 397 175.026 131.300 131.246 1.00 95.14 C
ATOM 2539 C ILE A 397 173.774 130.536 130.835 1.00 95.14 C
ATOM 2540 O ILE A 397 173.043 130.955 129.931 1.00 95.14 O
ATOM 2541 CB ILE A 397 176.292 130.690 130.619 1.00 95.14 C
ATOM 2542 CG1 ILE A 397 177.391 131.745 130.511 1.00 95.14 C
ATOM 2543 CG2 ILE A 397 175.977 130.092 129.259 1.00 95.14 C
ATOM 2544 CD1 ILE A 397 178.683 131.216 129.942 1.00 95.14 C
ATOM 2545 N ASN A 398 173.505 129.406 131.488 1.00 94.06 N
ATOM 2546 CA ASN A 398 172.339 128.616 131.112 1.00 94.06 C
ATOM 2547 C ASN A 398 171.045 129.321 131.495 1.00 94.06 C

ATOM 2548 O ASN A 398 170.089 129.339 130.713 1.00 94.06 O
ATOM 2549 CB ASN A 398 172.411 127.233 131.751 1.00 94.06 C
ATOM 2550 CG ASN A 398 173.196 126.251 130.912 1.00 94.06 C
ATOM 2551 OD1 ASN A 398 174.002 126.645 130.069 1.00 94.06 O
ATOM 2552 ND2 ASN A 398 172.964 124.965 131.133 1.00 94.06 N
ATOM 2553 N LYS A 399 170.994 129.906 132.692 1.00 94.89 N
ATOM 2554 CA LYS A 399 169.811 130.664 133.088 1.00 94.89 C
ATOM 2555 C LYS A 399 169.560 131.820 132.130 1.00 94.89 C
ATOM 2556 O LYS A 399 168.409 132.143 131.815 1.00 94.89 O
ATOM 2557 CB LYS A 399 169.977 131.176 134.516 1.00 94.89 C
ATOM 2558 CG LYS A 399 168.746 131.851 135.086 1.00 94.89 C
ATOM 2559 CD LYS A 399 169.056 132.492 136.428 1.00 94.89 C
ATOM 2560 CE LYS A 399 169.810 131.534 137.333 1.00 94.89 C
ATOM 2561 NZ LYS A 399 170.545 132.249 138.411 1.00 94.89 N
ATOM 2562 N LEU A 400 170.631 132.435 131.631 1.00 94.89 N
ATOM 2563 CA LEU A 400 170.498 133.571 130.727 1.00 94.89 C
ATOM 2564 C LEU A 400 170.007 133.125 129.355 1.00 94.89 C
ATOM 2565 O LEU A 400 169.108 133.745 128.772 1.00 94.89 O
ATOM 2566 CB LEU A 400 171.841 134.291 130.628 1.00 94.89 C
ATOM 2567 CG LEU A 400 171.991 135.479 129.693 1.00 94.89 C
ATOM 2568 CD1 LEU A 400 173.056 136.407 130.238 1.00 94.89 C
ATOM 2569 CD2 LEU A 400 172.362 134.988 128.311 1.00 94.89 C
ATOM 2570 N GLN A 401 170.594 132.055 128.817 1.00 95.22 N
ATOM 2571 CA GLN A 401 170.079 131.480 127.580 1.00 95.22 C
ATOM 2572 C GLN A 401 168.611 131.106 127.723 1.00 95.22 C
ATOM 2573 O GLN A 401 167.827 131.268 126.782 1.00 95.22 O
ATOM 2574 CB GLN A 401 170.903 130.258 127.181 1.00 95.22 C
ATOM 2575 CG GLN A 401 172.287 130.592 126.671 1.00 95.22 C
ATOM 2576 CD GLN A 401 172.256 131.241 125.308 1.00 95.22 C
ATOM 2577 OE1 GLN A 401 171.815 130.637 124.332 1.00 95.22 O
ATOM 2578 NE2 GLN A 401 172.720 132.481 125.234 1.00 95.22 N
ATOM 2579 N GLN A 402 168.219 130.604 128.894 1.00 93.67 N
ATOM 2580 CA GLN A 402 166.820 130.260 129.116 1.00 93.67 C
ATOM 2581 C GLN A 402 165.941 131.504 129.097 1.00 93.67 C

ATOM 2582 O GLN A 402 164.876 131.508 128.470 1.00 93.67 O
ATOM 2583 CB GLN A 402 166.673 129.510 130.439 1.00 93.67 C
ATOM 2584 CG GLN A 402 165.323 128.850 130.642 1.00 93.67 C
ATOM 2585 CD GLN A 402 164.283 129.813 131.170 1.00 93.67 C
ATOM 2586 OE1 GLN A 402 164.609 130.779 131.858 1.00 93.67 O
ATOM 2587 NE2 GLN A 402 163.022 129.558 130.848 1.00 93.67 N
ATOM 2588 N ILE A 403 166.367 132.567 129.782 1.00 91.63 N
ATOM 2589 CA ILE A 403 165.600 133.809 129.770 1.00 91.63 C
ATOM 2590 C ILE A 403 165.461 134.346 128.355 1.00 91.63 C
ATOM 2591 O ILE A 403 164.431 134.933 128.003 1.00 91.63 O
ATOM 2592 CB ILE A 403 166.247 134.857 130.694 1.00 91.63 C
ATOM 2593 CG1 ILE A 403 166.044 134.484 132.162 1.00 91.63 C
ATOM 2594 CG2 ILE A 403 165.668 136.230 130.414 1.00 91.63 C
ATOM 2595 CD1 ILE A 403 166.625 135.493 133.128 1.00 91.63 C
ATOM 2596 N PHE A 404 166.488 134.165 127.524 1.00 94.30 N
ATOM 2597 CA PHE A 404 166.462 134.758 126.191 1.00 94.30 C
ATOM 2598 C PHE A 404 165.654 133.923 125.205 1.00 94.30 C
ATOM 2599 O PHE A 404 164.959 134.477 124.348 1.00 94.30 O
ATOM 2600 CB PHE A 404 167.886 134.954 125.673 1.00 94.30 C
ATOM 2601 CG PHE A 404 167.971 135.149 124.188 1.00 94.30 C
ATOM 2602 CD1 PHE A 404 167.708 136.381 123.622 1.00 94.30 C
ATOM 2603 CD2 PHE A 404 168.326 134.102 123.359 1.00 94.30 C
ATOM 2604 CE1 PHE A 404 167.789 136.561 122.258 1.00 94.30 C
ATOM 2605 CE2 PHE A 404 168.408 134.277 121.996 1.00 94.30 C
ATOM 2606 CZ PHE A 404 168.140 135.508 121.445 1.00 94.30 C
ATOM 2607 N ASN A 405 165.731 132.596 125.300 1.00 99.81 N
ATOM 2608 CA ASN A 405 165.039 131.712 124.371 1.00 99.81 C
ATOM 2609 C ASN A 405 163.588 131.465 124.754 1.00 99.81 C
ATOM 2610 O ASN A 405 162.991 130.495 124.273 1.00 99.81 O
ATOM 2611 CB ASN A 405 165.780 130.376 124.265 1.00 99.81 C
ATOM 2612 CG ASN A 405 166.876 130.397 123.216 1.00 99.81 C
ATOM 2613 OD1 ASN A 405 167.579 131.392 123.058 1.00 99.81 O
ATOM 2614 ND2 ASN A 405 167.032 129.291 122.499 1.00 99.81 N
ATOM 2615 N THR A 406 163.006 132.312 125.599 1.00 97.17 N

ATOM 2616 CA THR A 406 161.635 132.127 126.053 1.00 97.17 C
ATOM 2617 C THR A 406 160.712 133.296 125.746 1.00 97.17 C
ATOM 2618 O THR A 406 159.493 133.091 125.703 1.00 97.17 O
ATOM 2619 CB THR A 406 161.604 131.862 127.566 1.00 97.17 C
ATOM 2620 OG1 THR A 406 162.400 130.710 127.865 1.00 97.17 O
ATOM 2621 CG2 THR A 406 160.179 131.623 128.040 1.00 97.17 C
ATOM 2622 N SER A 407 161.232 134.494 125.525 1.00 95.68 N
ATOM 2623 CA SER A 407 160.404 135.657 125.225 1.00 95.68 C
ATOM 2624 C SER A 407 160.790 136.339 123.922 1.00 95.68 C
ATOM 2625 O SER A 407 159.911 136.813 123.200 1.00 95.68 O
ATOM 2626 CB SER A 407 160.481 136.669 126.379 1.00 95.68 C
ATOM 2627 OG SER A 407 160.156 136.057 127.615 1.00 95.68 O
ATOM 2628 N TYR A 408 162.079 136.404 123.606 1.00 94.77 N
ATOM 2629 CA TYR A 408 162.541 137.020 122.365 1.00 94.77 C
ATOM 2630 C TYR A 408 162.764 135.930 121.318 1.00 94.77 C
ATOM 2631 O TYR A 408 163.881 135.633 120.896 1.00 94.77 O
ATOM 2632 CB TYR A 408 163.803 137.836 122.621 1.00 94.77 C
ATOM 2633 CG TYR A 408 163.706 138.745 123.828 1.00 94.77 C
ATOM 2634 CD1 TYR A 408 162.481 139.230 124.263 1.00 94.77 C
ATOM 2635 CD2 TYR A 408 164.838 139.106 124.540 1.00 94.77 C
ATOM 2636 CE1 TYR A 408 162.391 140.055 125.365 1.00 94.77 C
ATOM 2637 CE2 TYR A 408 164.756 139.931 125.642 1.00 94.77 C
ATOM 2638 CZ TYR A 408 163.531 140.402 126.050 1.00 94.77 C
ATOM 2639 OH TYR A 408 163.446 141.222 127.149 1.00 94.77 O
ATOM 2640 N ASN A 409 161.650 135.333 120.900 1.00101.56 N
ATOM 2641 CA ASN A 409 161.680 134.171 120.022 1.00101.56 C
ATOM 2642 C ASN A 409 162.322 134.477 118.675 1.00101.56 C
ATOM 2643 O ASN A 409 163.385 133.937 118.351 1.00101.56 O
ATOM 2644 CB ASN A 409 160.260 133.639 119.814 1.00101.56 C
ATOM 2645 CG ASN A 409 159.274 134.736 119.449 1.00101.56 C
ATOM 2646 OD1 ASN A 409 159.265 135.227 118.321 1.00101.56 O
ATOM 2647 ND2 ASN A 409 158.440 135.126 120.406 1.00101.56 N
ATOM 2648 N GLN A 410 161.686 135.348 117.888 1.00106.84 N
ATOM 2649 CA GLN A 410 162.151 135.645 116.541 1.00106.84 C

ATOM 2650 C GLN A 410 162.120 137.127 116.197 1.00106.84 C
ATOM 2651 O GLN A 410 162.449 137.482 115.060 1.00106.84 O
ATOM 2652 CB GLN A 410 161.320 134.869 115.505 1.00106.84 C
ATOM 2653 CG GLN A 410 161.556 133.368 115.517 1.00106.84 C
ATOM 2654 CD GLN A 410 160.416 132.602 116.157 1.00106.84 C
ATOM 2655 OE1 GLN A 410 159.541 133.186 116.796 1.00106.84 O
ATOM 2656 NE2 GLN A 410 160.419 131.285 115.986 1.00106.84 N
ATOM 2657 N THR A 411 161.737 137.999 117.129 1.00100.26 N
ATOM 2658 CA THR A 411 161.729 139.428 116.847 1.00100.26 C
ATOM 2659 C THR A 411 163.097 140.050 117.091 1.00100.26 C
ATOM 2660 O THR A 411 163.528 140.924 116.331 1.00100.26 O
ATOM 2661 CB THR A 411 160.673 140.126 117.702 1.00100.26 C
ATOM 2662 OG1 THR A 411 161.170 140.287 119.035 1.00100.26 O
ATOM 2663 CG2 THR A 411 159.401 139.299 117.744 1.00100.26 C
ATOM 2664 N TYR A 412 163.792 139.614 118.136 1.00 96.12 N
ATOM 2665 CA TYR A 412 165.078 140.176 118.516 1.00 96.12 C
ATOM 2666 C TYR A 412 166.222 139.259 118.094 1.00 96.12 C
ATOM 2667 O TYR A 412 166.021 138.140 117.618 1.00 96.12 O
ATOM 2668 CB TYR A 412 165.124 140.426 120.025 1.00 96.12 C
ATOM 2669 CG TYR A 412 164.306 141.613 120.478 1.00 96.12 C
ATOM 2670 CD1 TYR A 412 164.801 142.904 120.367 1.00 96.12 C
ATOM 2671 CD2 TYR A 412 163.043 141.442 121.021 1.00 96.12 C
ATOM 2672 CE1 TYR A 412 164.060 143.990 120.782 1.00 96.12 C
ATOM 2673 CE2 TYR A 412 162.295 142.522 121.438 1.00 96.12 C
ATOM 2674 CZ TYR A 412 162.808 143.793 121.316 1.00 96.12 C
ATOM 2675 OH TYR A 412 162.066 144.873 121.731 1.00 96.12 O
ATOM 2676 N GLU A 413 167.442 139.758 118.280 1.00 97.58 N
ATOM 2677 CA GLU A 413 168.649 139.027 117.914 1.00 97.58 C
ATOM 2678 C GLU A 413 169.629 138.996 119.078 1.00 97.58 C
ATOM 2679 O GLU A 413 169.280 139.370 120.202 1.00 97.58 O
ATOM 2680 CB GLU A 413 169.306 139.660 116.688 1.00 97.58 C
ATOM 2681 CG GLU A 413 168.593 139.374 115.384 1.00 97.58 C
ATOM 2682 CD GLU A 413 168.896 137.992 114.850 1.00 97.58 C
ATOM 2683 OE1 GLU A 413 170.054 137.545 114.982 1.00 97.58 O

ATOM 2684 OE2 GLU A 413 167.978 137.351 114.299 1.00 97.58 O
ATOM 2685 N LYS A 414 170.855 138.546 118.826 1.00 92.57 N
ATOM 2686 CA LYS A 414 171.918 138.549 119.824 1.00 92.57 C
ATOM 2687 C LYS A 414 173.079 139.360 119.270 1.00 92.57 C
ATOM 2688 O LYS A 414 173.727 138.944 118.304 1.00 92.57 O
ATOM 2689 CB LYS A 414 172.350 137.127 120.175 1.00 92.57 C
ATOM 2690 CG LYS A 414 171.391 136.405 121.105 1.00 92.57 C
ATOM 2691 CD LYS A 414 171.874 134.998 121.409 1.00 92.57 C
ATOM 2692 CE LYS A 414 173.330 135.000 121.840 1.00 92.57 C
ATOM 2693 NZ LYS A 414 173.917 133.634 121.814 1.00 92.57 N
ATOM 2694 N TYR A 415 173.341 140.512 119.880 1.00 95.72 N
ATOM 2695 CA TYR A 415 174.358 141.447 119.401 1.00 95.72 C
ATOM 2696 C TYR A 415 175.592 141.307 120.284 1.00 95.72 C
ATOM 2697 O TYR A 415 175.724 141.970 121.313 1.00 95.72 O
ATOM 2698 CB TYR A 415 173.817 142.872 119.406 1.00 95.72 C
ATOM 2699 CG TYR A 415 174.879 143.944 119.363 1.00 95.72 C
ATOM 2700 CD1 TYR A 415 175.908 143.893 118.436 1.00 95.72 C
ATOM 2701 CD2 TYR A 415 174.846 145.014 120.246 1.00 95.72 C
ATOM 2702 CE1 TYR A 415 176.878 144.874 118.392 1.00 95.72 C
ATOM 2703 CE2 TYR A 415 175.810 145.999 120.210 1.00 95.72 C
ATOM 2704 CZ TYR A 415 176.825 145.925 119.281 1.00 95.72 C
ATOM 2705 OH TYR A 415 177.790 146.904 119.240 1.00 95.72 O
ATOM 2706 N GLY A 416 176.504 140.430 119.874 1.00 98.82 N
ATOM 2707 CA GLY A 416 177.754 140.253 120.587 1.00 98.82 C
ATOM 2708 C GLY A 416 177.847 138.942 121.337 1.00 98.82 C
ATOM 2709 O GLY A 416 177.455 137.889 120.826 1.00 98.82 O
ATOM 2710 N ASN A 417 178.372 138.996 122.556 1.00104.28 N
ATOM 2711 CA ASN A 417 178.480 137.819 123.401 1.00104.28 C
ATOM 2712 C ASN A 417 178.526 138.274 124.851 1.00104.28 C
ATOM 2713 O ASN A 417 178.658 139.465 125.147 1.00104.28 O
ATOM 2714 CB ASN A 417 179.710 136.982 123.044 1.00104.28 C
ATOM 2715 CG ASN A 417 181.001 137.732 123.263 1.00104.28 C
ATOM 2716 OD1 ASN A 417 181.099 138.920 122.961 1.00104.28 O
ATOM 2717 ND2 ASN A 417 182.005 137.042 123.791 1.00104.28 N

ATOM 2718 N VAL A 418 178.418 137.306 125.762 1.00 93.80 N
ATOM 2719 CA VAL A 418 178.315 137.632 127.176 1.00 93.80 C
ATOM 2720 C VAL A 418 179.577 138.347 127.639 1.00 93.80 C
ATOM 2721 O VAL A 418 180.686 138.088 127.153 1.00 93.80 O
ATOM 2722 CB VAL A 418 178.056 136.367 128.011 1.00 93.80 C
ATOM 2723 CG1 VAL A 418 177.631 136.748 129.412 1.00 93.80 C
ATOM 2724 CG2 VAL A 418 176.999 135.505 127.348 1.00 93.80 C
ATOM 2725 N SER A 419 179.405 139.265 128.586 1.00 94.79 N
ATOM 2726 CA SER A 419 180.514 140.016 129.151 1.00 94.79 C
ATOM 2727 C SER A 419 180.220 140.273 130.619 1.00 94.79 C
ATOM 2728 O SER A 419 179.065 140.449 131.011 1.00 94.79 O
ATOM 2729 CB SER A 419 180.737 141.337 128.410 1.00 94.79 C
ATOM 2730 OG SER A 419 179.506 141.985 128.152 1.00 94.79 O
ATOM 2731 N VAL A 420 181.277 140.302 131.425 1.00 94.36 N
ATOM 2732 CA VAL A 420 181.167 140.329 132.878 1.00 94.36 C
ATOM 2733 C VAL A 420 181.717 141.654 133.386 1.00 94.36 C
ATOM 2734 O VAL A 420 182.901 141.956 133.197 1.00 94.36 O
ATOM 2735 CB VAL A 420 181.905 139.145 133.514 1.00 94.36 C
ATOM 2736 CG1 VAL A 420 181.226 137.847 133.143 1.00 94.36 C
ATOM 2737 CG2 VAL A 420 183.338 139.116 133.039 1.00 94.36 C
ATOM 2738 N PHE A 421 180.862 142.440 134.032 1.00 94.67 N
ATOM 2739 CA PHE A 421 181.247 143.707 134.634 1.00 94.67 C
ATOM 2740 C PHE A 421 181.318 143.562 136.148 1.00 94.67 C
ATOM 2741 O PHE A 421 180.681 142.684 136.733 1.00 94.67 O
ATOM 2742 CB PHE A 421 180.263 144.823 134.266 1.00 94.67 C
ATOM 2743 CG PHE A 421 180.347 145.255 132.833 1.00 94.67 C
ATOM 2744 CD1 PHE A 421 181.457 145.931 132.368 1.00 94.67 C
ATOM 2745 CD2 PHE A 421 179.318 144.988 131.952 1.00 94.67 C
ATOM 2746 CE1 PHE A 421 181.540 146.327 131.055 1.00 94.67 C
ATOM 2747 CE2 PHE A 421 179.399 145.383 130.640 1.00 94.67 C
ATOM 2748 CZ PHE A 421 180.511 146.053 130.191 1.00 94.67 C
ATOM 2749 N GLU A 422 182.097 144.436 136.779 1.00101.48 N
ATOM 2750 CA GLU A 422 182.315 144.406 138.222 1.00101.48 C
ATOM 2751 C GLU A 422 182.021 145.789 138.787 1.00101.48 C

ATOM 2752 O GLU A 422 182.747 146.747 138.503 1.00101.48 O
ATOM 2753 CB GLU A 422 183.741 143.971 138.545 1.00101.48 C
ATOM 2754 CG GLU A 422 183.976 143.658 140.008 1.00101.48 C
ATOM 2755 CD GLU A 422 184.903 142.476 140.202 1.00101.48 C
ATOM 2756 OE1 GLU A 422 184.883 141.874 141.296 1.00101.48 O
ATOM 2757 OE2 GLU A 422 185.651 142.146 139.257 1.00101.48 O
ATOM 2758 N THR A 423 180.967 145.891 139.589 1.00100.82 N
ATOM 2759 CA THR A 423 180.539 147.175 140.129 1.00100.82 C
ATOM 2760 C THR A 423 181.476 147.599 141.257 1.00100.82 C
ATOM 2761 O THR A 423 182.509 146.977 141.520 1.00100.82 O
ATOM 2762 CB THR A 423 179.096 147.099 140.611 1.00100.82 C
ATOM 2763 OG1 THR A 423 178.702 148.374 141.131 1.00100.82 O
ATOM 2764 CG2 THR A 423 178.968 146.069 141.708 1.00100.82 C
ATOM 2765 N THR A 424 181.113 148.685 141.941 1.00105.16 N
ATOM 2766 CA THR A 424 181.925 149.193 143.040 1.00105.16 C
ATOM 2767 C THR A 424 181.639 148.446 144.338 1.00105.16 C
ATOM 2768 O THR A 424 182.565 148.088 145.074 1.00105.16 O
ATOM 2769 CB THR A 424 181.680 150.692 143.223 1.00105.16 C
ATOM 2770 OG1 THR A 424 180.272 150.937 143.327 1.00105.16 O
ATOM 2771 CG2 THR A 424 182.236 151.472 142.043 1.00105.16 C
ATOM 2772 N GLY A 425 180.360 148.207 144.636 1.00102.01 N
ATOM 2773 CA GLY A 425 180.012 147.531 145.875 1.00102.01 C
ATOM 2774 C GLY A 425 180.699 146.189 146.031 1.00102.01 C
ATOM 2775 O GLY A 425 181.167 145.842 147.117 1.00102.01 O
ATOM 2776 N GLY A 426 180.771 145.416 144.951 1.00 99.43 N
ATOM 2777 CA GLY A 426 181.416 144.120 144.996 1.00 99.43 C
ATOM 2778 C GLY A 426 180.657 143.044 144.249 1.00 99.43 C
ATOM 2779 O GLY A 426 181.189 141.957 144.003 1.00 99.43 O
ATOM 2780 N LEU A 427 179.411 143.334 143.882 1.00 94.06 N
ATOM 2781 CA LEU A 427 178.599 142.368 143.157 1.00 94.06 C
ATOM 2782 C LEU A 427 179.056 142.263 141.706 1.00 94.06 C
ATOM 2783 O LEU A 427 179.453 143.254 141.088 1.00 94.06 O
ATOM 2784 CB LEU A 427 177.124 142.757 143.236 1.00 94.06 C
ATOM 2785 CG LEU A 427 176.732 144.149 142.741 1.00 94.06 C

ATOM 2786 CD1 LEU A 427 176.514 144.151 141.240 1.00 94.06 C
ATOM 2787 CD2 LEU A 427 175.494 144.648 143.468 1.00 94.06 C
ATOM 2788 N VAL A 428 178.995 141.048 141.164 1.00 89.89 N
ATOM 2789 CA VAL A 428 179.536 140.756 139.841 1.00 89.89 C
ATOM 2790 C VAL A 428 178.404 140.485 138.861 1.00 89.89 C
ATOM 2791 O VAL A 428 177.876 139.370 138.797 1.00 89.89 O
ATOM 2792 CB VAL A 428 180.509 139.565 139.899 1.00 89.89 C
ATOM 2793 CG1 VAL A 428 180.666 138.937 138.527 1.00 89.89 C
ATOM 2794 CG2 VAL A 428 181.852 140.013 140.434 1.00 89.89 C
ATOM 2795 N VAL A 429 178.025 141.501 138.089 1.00 87.79 N
ATOM 2796 CA VAL A 429 176.953 141.394 137.106 1.00 87.79 C
ATOM 2797 C VAL A 429 177.553 141.134 135.734 1.00 87.79 C
ATOM 2798 O VAL A 429 178.592 141.704 135.379 1.00 87.79 O
ATOM 2799 CB VAL A 429 176.089 142.668 137.086 1.00 87.79 C
ATOM 2800 CG1 VAL A 429 176.953 143.885 136.835 1.00 87.79 C
ATOM 2801 CG2 VAL A 429 175.023 142.558 136.019 1.00 87.79 C
ATOM 2802 N PHE A 430 176.898 140.274 134.957 1.00 89.74 N
ATOM 2803 CA PHE A 430 177.259 140.081 133.560 1.00 89.74 C
ATOM 2804 C PHE A 430 176.004 139.763 132.764 1.00 89.74 C
ATOM 2805 O PHE A 430 175.122 139.046 133.241 1.00 89.74 O
ATOM 2806 CB PHE A 430 178.323 138.992 133.384 1.00 89.74 C
ATOM 2807 CG PHE A 430 178.067 137.739 134.167 1.00 89.74 C
ATOM 2808 CD1 PHE A 430 178.486 137.631 135.480 1.00 89.74 C
ATOM 2809 CD2 PHE A 430 177.455 136.652 133.575 1.00 89.74 C
ATOM 2810 CE1 PHE A 430 178.272 136.476 136.193 1.00 89.74 C
ATOM 2811 CE2 PHE A 430 177.240 135.496 134.283 1.00 89.74 C
ATOM 2812 CZ PHE A 430 177.649 135.407 135.595 1.00 89.74 C
ATOM 2813 N TRP A 431 175.942 140.293 131.545 1.00 89.95 N
ATOM 2814 CA TRP A 431 174.686 140.464 130.829 1.00 89.95 C
ATOM 2815 C TRP A 431 174.894 140.107 129.361 1.00 89.95 C
ATOM 2816 O TRP A 431 175.939 139.580 128.969 1.00 89.95 O
ATOM 2817 CB TRP A 431 174.192 141.905 130.998 1.00 89.95 C
ATOM 2818 CG TRP A 431 175.064 142.872 130.280 1.00 89.95 C
ATOM 2819 CD1 TRP A 431 176.404 143.038 130.449 1.00 89.95 C

ATOM 2820 CD2 TRP A 431 174.664 143.820 129.286 1.00 89.95 C
ATOM 2821 NE1 TRP A 431 176.868 144.020 129.614 1.00 89.95 N
ATOM 2822 CE2 TRP A 431 175.818 144.518 128.890 1.00 89.95 C
ATOM 2823 CE3 TRP A 431 173.443 144.143 128.690 1.00 89.95 C
ATOM 2824 CZ2 TRP A 431 175.789 145.519 127.928 1.00 89.95 C
ATOM 2825 CZ3 TRP A 431 173.417 145.135 127.736 1.00 89.95 C
ATOM 2826 CH2 TRP A 431 174.582 145.812 127.364 1.00 89.95 C
ATOM 2827 N GLN A 432 173.881 140.404 128.545 1.00 87.48 N
ATOM 2828 CA GLN A 432 173.889 140.111 127.119 1.00 87.48 C
ATOM 2829 C GLN A 432 173.308 141.290 126.354 1.00 87.48 C
ATOM 2830 O GLN A 432 172.406 141.977 126.837 1.00 87.48 O
ATOM 2831 CB GLN A 432 173.088 138.845 126.804 1.00 87.48 C
ATOM 2832 CG GLN A 432 172.985 138.534 125.330 1.00 87.48 C
ATOM 2833 CD GLN A 432 174.333 138.536 124.645 1.00 87.48 C
ATOM 2834 OE1 GLN A 432 175.010 139.561 124.584 1.00 87.48 O
ATOM 2835 NE2 GLN A 432 174.732 137.384 124.124 1.00 87.48 N
ATOM 2836 N GLY A 433 173.828 141.514 125.147 1.00 90.52 N
ATOM 2837 CA GLY A 433 173.393 142.619 124.308 1.00 90.52 C
ATOM 2838 C GLY A 433 172.412 142.152 123.247 1.00 90.52 C
ATOM 2839 O GLY A 433 172.610 141.111 122.619 1.00 90.52 O
ATOM 2840 N ILE A 434 171.358 142.942 123.049 1.00 91.61 N
ATOM 2841 CA ILE A 434 170.256 142.559 122.176 1.00 91.61 C
ATOM 2842 C ILE A 434 169.744 143.781 121.425 1.00 91.61 C
ATOM 2843 O ILE A 434 169.851 144.915 121.899 1.00 91.61 O
ATOM 2844 CB ILE A 434 169.114 141.901 122.975 1.00 91.61 C
ATOM 2845 CG1 ILE A 434 168.134 141.214 122.033 1.00 91.61 C
ATOM 2846 CG2 ILE A 434 168.393 142.931 123.818 1.00 91.61 C
ATOM 2847 CD1 ILE A 434 167.114 140.379 122.745 1.00 91.61 C
ATOM 2848 N LYS A 435 169.183 143.540 120.240 1.00 93.35 N
ATOM 2849 CA LYS A 435 168.565 144.595 119.448 1.00 93.35 C
ATOM 2850 C LYS A 435 167.600 143.967 118.453 1.00 93.35 C
ATOM 2851 O LYS A 435 167.786 142.827 118.021 1.00 93.35 O
ATOM 2852 CB LYS A 435 169.610 145.450 118.723 1.00 93.35 C
ATOM 2853 CG LYS A 435 170.594 144.666 117.882 1.00 93.35 C

ATOM 2854 CD LYS A 435 170.064 144.422 116.485 1.00 93.35 C
ATOM 2855 CE LYS A 435 171.140 143.821 115.599 1.00 93.35 C
ATOM 2856 NZ LYS A 435 170.609 143.427 114.268 1.00 93.35 N
ATOM 2857 N GLN A 436 166.572 144.732 118.091 1.00 97.39 N
ATOM 2858 CA GLN A 436 165.485 144.230 117.264 1.00 97.39 C
ATOM 2859 C GLN A 436 165.967 143.974 115.836 1.00 97.39 C
ATOM 2860 O GLN A 436 167.138 144.157 115.498 1.00 97.39 O
ATOM 2861 CB GLN A 436 164.318 145.215 117.274 1.00 97.39 C
ATOM 2862 CG GLN A 436 163.000 144.633 116.794 1.00 97.39 C
ATOM 2863 CD GLN A 436 161.817 145.510 117.141 1.00 97.39 C
ATOM 2864 OE1 GLN A 436 161.978 146.682 117.475 1.00 97.39 O
ATOM 2865 NE2 GLN A 436 160.619 144.946 117.065 1.00 97.39 N
ATOM 2866 N LYS A 437 165.038 143.537 114.990 1.00103.13 N
ATOM 2867 CA LYS A 437 165.320 143.267 113.588 1.00103.13 C
ATOM 2868 C LYS A 437 165.326 144.583 112.810 1.00103.13 C
ATOM 2869 O LYS A 437 165.324 145.674 113.385 1.00103.13 O
ATOM 2870 CB LYS A 437 164.307 142.274 113.029 1.00103.13 C
ATOM 2871 CG LYS A 437 164.438 140.868 113.589 1.00103.13 C
ATOM 2872 CD LYS A 437 165.322 139.999 112.708 1.00103.13 C
ATOM 2873 CE LYS A 437 165.438 138.587 113.260 1.00103.13 C
ATOM 2874 NZ LYS A 437 164.113 137.923 113.391 1.00103.13 N
ATOM 2875 N SER A 438 165.330 144.492 111.482 1.00106.36 N
ATOM 2876 CA SER A 438 165.446 145.658 110.615 1.00106.36 C
ATOM 2877 C SER A 438 164.098 146.258 110.230 1.00106.36 C
ATOM 2878 O SER A 438 164.057 147.166 109.395 1.00106.36 O
ATOM 2879 CB SER A 438 166.229 145.296 109.351 1.00106.36 C
ATOM 2880 OG SER A 438 166.590 146.457 108.625 1.00106.36 O
ATOM 2881 N LEU A 439 163.002 145.775 110.812 1.00106.82 N
ATOM 2882 CA LEU A 439 161.641 146.247 110.569 1.00106.82 C
ATOM 2883 C LEU A 439 161.126 145.879 109.186 1.00106.82 C
ATOM 2884 O LEU A 439 159.952 146.132 108.891 1.00106.82 O
ATOM 2885 CB LEU A 439 161.506 147.765 110.758 1.00106.82 C
ATOM 2886 CG LEU A 439 160.104 148.349 110.579 1.00106.82 C
ATOM 2887 CD1 LEU A 439 159.148 147.754 111.590 1.00106.82 C

ATOM 2888 CD2 LEU A 439 160.140 149.858 110.708 1.00106.82 C
ATOM 2889 N VAL A 440 161.954 145.290 108.327 1.00110.50 N
ATOM 2890 CA VAL A 440 161.477 144.756 107.059 1.00110.50 C
ATOM 2891 C VAL A 440 161.174 143.267 107.155 1.00110.50 C
ATOM 2892 O VAL A 440 160.383 142.755 106.348 1.00110.50 O
ATOM 2893 CB VAL A 440 162.488 145.018 105.925 1.00110.50 C
ATOM 2894 CG1 VAL A 440 161.965 144.461 104.617 1.00110.50 C
ATOM 2895 CG2 VAL A 440 162.763 146.504 105.799 1.00110.50 C
ATOM 2896 N GLU A 441 161.774 142.560 108.111 1.00113.80 N
ATOM 2897 CA GLU A 441 161.470 141.156 108.340 1.00113.80 C
ATOM 2898 C GLU A 441 160.332 140.955 109.328 1.00113.80 C
ATOM 2899 O GLU A 441 159.686 139.903 109.301 1.00113.80 O
ATOM 2900 CB GLU A 441 162.714 140.422 108.844 1.00113.80 C
ATOM 2901 CG GLU A 441 163.595 139.878 107.736 1.00113.80 C
ATOM 2902 CD GLU A 441 164.359 140.969 107.015 1.00113.80 C
ATOM 2903 OE1 GLU A 441 165.158 141.671 107.670 1.00113.80 O
ATOM 2904 OE2 GLU A 441 164.161 141.126 105.792 1.00113.80 O
ATOM 2905 N LEU A 442 160.079 141.929 110.205 1.00112.51 N
ATOM 2906 CA LEU A 442 158.957 141.813 111.128 1.00112.51 C
ATOM 2907 C LEU A 442 157.648 141.608 110.380 1.00112.51 C
ATOM 2908 O LEU A 442 156.789 140.832 110.813 1.00112.51 O
ATOM 2909 CB LEU A 442 158.878 143.055 112.016 1.00112.51 C
ATOM 2910 CG LEU A 442 159.584 142.960 113.367 1.00112.51 C
ATOM 2911 CD1 LEU A 442 159.695 144.328 114.007 1.00112.51 C
ATOM 2912 CD2 LEU A 442 158.840 142.006 114.279 1.00112.51 C
ATOM 2913 N GLU A 443 157.477 142.295 109.249 1.00116.97 N
ATOM 2914 CA GLU A 443 156.244 142.157 108.481 1.00116.97 C
ATOM 2915 C GLU A 443 156.191 140.821 107.752 1.00116.97 C
ATOM 2916 O GLU A 443 155.124 140.206 107.649 1.00116.97 O
ATOM 2917 CB GLU A 443 156.110 143.314 107.492 1.00116.97 C
ATOM 2918 CG GLU A 443 154.685 143.578 107.034 1.00116.97 C
ATOM 2919 CD GLU A 443 154.298 142.753 105.822 1.00116.97 C
ATOM 2920 OE1 GLU A 443 153.095 142.708 105.489 1.00116.97 O
ATOM 2921 OE2 GLU A 443 155.196 142.149 105.201 1.00116.97 O

ATOM 2922 N ARG A 444 157.332 140.354 107.240 1.00118.60 N
ATOM 2923 CA ARG A 444 157.357 139.091 106.514 1.00118.60 C
ATOM 2924 C ARG A 444 157.308 137.887 107.443 1.00118.60 C
ATOM 2925 O ARG A 444 157.096 136.765 106.972 1.00118.60 O
ATOM 2926 CB ARG A 444 158.602 139.016 105.630 1.00118.60 C
ATOM 2927 CG ARG A 444 158.561 137.901 104.601 1.00118.60 C
ATOM 2928 CD ARG A 444 159.921 137.700 103.962 1.00118.60 C
ATOM 2929 NE ARG A 444 160.911 137.236 104.929 1.00118.60 N
ATOM 2930 CZ ARG A 444 162.213 137.150 104.680 1.00118.60 C
ATOM 2931 NH1 ARG A 444 163.043 136.716 105.619 1.00118.60 N
ATOM 2932 NH2 ARG A 444 162.686 137.498 103.492 1.00118.60 N
ATOM 2933 N LEU A 445 157.503 138.091 108.744 1.00119.46 N
ATOM 2934 CA LEU A 445 157.381 137.006 109.708 1.00119.46 C
ATOM 2935 C LEU A 445 155.959 136.847 110.220 1.00119.46 C
ATOM 2936 O LEU A 445 155.577 135.748 110.638 1.00119.46 O
ATOM 2937 CB LEU A 445 158.330 137.235 110.886 1.00119.46 C
ATOM 2938 CG LEU A 445 158.434 136.095 111.899 1.00119.46 C
ATOM 2939 CD1 LEU A 445 158.471 134.755 111.189 1.00119.46 C
ATOM 2940 CD2 LEU A 445 159.665 136.271 112.770 1.00119.46 C
ATOM 2941 N ALA A 446 155.171 137.917 110.203 1.00120.36 N
ATOM 2942 CA ALA A 446 153.749 137.879 110.534 1.00120.36 C
ATOM 2943 C ALA A 446 152.993 138.189 109.245 1.00120.36 C
ATOM 2944 O ALA A 446 152.811 139.350 108.877 1.00120.36 O
ATOM 2945 CB ALA A 446 153.408 138.865 111.645 1.00120.36 C
ATOM 2946 N ASN A 447 152.556 137.135 108.559 1.00123.06 N
ATOM 2947 CA ASN A 447 151.931 137.268 107.249 1.00123.06 C
ATOM 2948 C ASN A 447 150.746 138.225 107.295 1.00123.06 C
ATOM 2949 O ASN A 447 150.153 138.442 108.357 1.00123.06 O
ATOM 2950 CB ASN A 447 151.493 135.896 106.733 1.00123.06 C
ATOM 2951 CG ASN A 447 151.083 135.925 105.277 1.00123.06 C
ATOM 2952 OD1 ASN A 447 151.091 136.976 104.639 1.00123.06 O
ATOM 2953 ND2 ASN A 447 150.724 134.765 104.740 1.00123.06 N
ATOM 2954 N ARG A 448 150.400 138.804 106.149 1.00119.91 N
ATOM 2955 CA ARG A 448 149.272 139.723 106.051 1.00119.91 C

ATOM 2956 C ARG A 448 148.479 139.475 104.772 1.00119.91 C
ATOM 2957 O ARG A 448 147.729 138.504 104.671 1.00119.91 O
ATOM 2958 CB ARG A 448 149.752 141.176 106.098 1.00119.91 C
ATOM 2959 CG ARG A 448 150.325 141.600 107.439 1.00119.91 C
ATOM 2960 CD ARG A 448 150.830 143.036 107.401 1.00119.91 C
ATOM 2961 NE ARG A 448 149.746 144.002 107.250 1.00119.91 N
ATOM 2962 CZ ARG A 448 149.820 145.274 107.628 1.00119.91 C
ATOM 2963 NH1 ARG A 448 148.785 146.082 107.451 1.00119.91 N
ATOM 2964 NH2 ARG A 448 150.929 145.739 108.187 1.00119.91 N
ATOM 2965 N ASN A 478 163.961 152.384 96.604 1.00127.42 N
ATOM 2966 CA ASN A 478 163.455 151.729 97.804 1.00127.42 C
ATOM 2967 C ASN A 478 163.802 152.546 99.044 1.00127.42 C
ATOM 2968 O ASN A 478 163.939 152.004 100.140 1.00127.42 O
ATOM 2969 CB ASN A 478 164.028 150.315 97.924 1.00127.42 C
ATOM 2970 CG ASN A 478 163.614 149.418 96.774 1.00127.42 C
ATOM 2971 OD1 ASN A 478 164.009 149.637 95.628 1.00127.42 O
ATOM 2972 ND2 ASN A 478 162.817 148.399 97.074 1.00127.42 N
ATOM 2973 N LEU A 479 163.942 153.861 98.860 1.00125.68 N
ATOM 2974 CA LEU A 479 164.396 154.718 99.950 1.00125.68 C
ATOM 2975 C LEU A 479 163.328 154.898 101.023 1.00125.68 C
ATOM 2976 O LEU A 479 163.665 155.111 102.192 1.00125.68 O
ATOM 2977 CB LEU A 479 164.832 156.078 99.401 1.00125.68 C
ATOM 2978 CG LEU A 479 165.619 156.992 100.345 1.00125.68 C
ATOM 2979 CD1 LEU A 479 166.508 157.939 99.554 1.00125.68 C
ATOM 2980 CD2 LEU A 479 164.686 157.770 101.261 1.00125.68 C
ATOM 2981 N VAL A 480 162.048 154.821 100.651 1.00123.21 N
ATOM 2982 CA VAL A 480 160.974 155.095 101.603 1.00123.21 C
ATOM 2983 C VAL A 480 161.091 154.193 102.827 1.00123.21 C
ATOM 2984 O VAL A 480 160.845 154.623 103.964 1.00123.21 O
ATOM 2985 CB VAL A 480 159.604 154.946 100.915 1.00123.21 C
ATOM 2986 CG1 VAL A 480 159.320 153.486 100.594 1.00123.21 C
ATOM 2987 CG2 VAL A 480 158.505 155.528 101.788 1.00123.21 C
ATOM 2988 N TYR A 481 161.452 152.926 102.616 1.00121.29 N
ATOM 2989 CA TYR A 481 161.597 152.002 103.734 1.00121.29 C

```
ATOM   2990  C   TYR A 481     162.575 152.549 104.765  1.00121.29           C
ATOM   2991  O   TYR A 481     162.262 152.627 105.958  1.00121.29           O
ATOM   2992  CB  TYR A 481     162.055 150.635 103.227  1.00121.29           C
ATOM   2993  CG  TYR A 481     161.059 149.948 102.320  1.00121.29           C
ATOM   2994  CD1 TYR A 481     160.988 150.263 100.969  1.00121.29           C
ATOM   2995  CD2 TYR A 481     160.194 148.981 102.812  1.00121.29           C
ATOM   2996  CE1 TYR A 481     160.082 149.636 100.137  1.00121.29           C
ATOM   2997  CE2 TYR A 481     159.285 148.349 101.987  1.00121.29           C
ATOM   2998  CZ  TYR A 481     159.233 148.680 100.651  1.00121.29           C
ATOM   2999  OH  TYR A 481     158.329 148.053  99.824  1.00121.29           O
ATOM   3000  N   ALA A 482     163.767 152.944 104.315  1.00118.61           N
ATOM   3001  CA  ALA A 482     164.763 153.475 105.239  1.00118.61           C
ATOM   3002  C   ALA A 482     164.316 154.806 105.828  1.00118.61           C
ATOM   3003  O   ALA A 482     164.568 155.088 107.006  1.00118.61           O
ATOM   3004  CB  ALA A 482     166.108 153.626 104.528  1.00118.61           C
ATOM   3005  N   GLN A 483     163.662 155.643 105.023  1.00114.41           N
ATOM   3006  CA  GLN A 483     163.199 156.927 105.530  1.00114.41           C
ATOM   3007  C   GLN A 483     162.262 156.739 106.714  1.00114.41           C
ATOM   3008  O   GLN A 483     162.323 157.496 107.689  1.00114.41           O
ATOM   3009  CB  GLN A 483     162.513 157.720 104.420  1.00114.41           C
ATOM   3010  CG  GLN A 483     161.992 159.075 104.868  1.00114.41           C
ATOM   3011  CD  GLN A 483     163.105 160.022 105.276  1.00114.41           C
ATOM   3012  OE1 GLN A 483     163.084 160.588 106.368  1.00114.41           O
ATOM   3013  NE2 GLN A 483     164.082 160.200 104.396  1.00114.41           N
ATOM   3014  N   LEU A 484     161.391 155.730 106.653  1.00109.34           N
ATOM   3015  CA  LEU A 484     160.488 155.500 107.778  1.00109.34           C
ATOM   3016  C   LEU A 484     161.172 154.749 108.915  1.00109.34           C
ATOM   3017  O   LEU A 484     160.845 154.975 110.089  1.00109.34           O
ATOM   3018  CB  LEU A 484     159.234 154.755 107.315  1.00109.34           C
ATOM   3019  CG  LEU A 484     159.365 153.352 106.732  1.00109.34           C
ATOM   3020  CD1 LEU A 484     159.407 152.325 107.844  1.00109.34           C
ATOM   3021  CD2 LEU A 484     158.208 153.073 105.792  1.00109.34           C
ATOM   3022  N   GLN A 485     162.106 153.851 108.591  1.00105.88           N
ATOM   3023  CA  GLN A 485     162.942 153.240 109.619  1.00105.88           C
```

ATOM 3024 C GLN A 485 163.611 154.304 110.478 1.00105.88 C
ATOM 3025 O GLN A 485 163.770 154.135 111.695 1.00105.88 O
ATOM 3026 CB GLN A 485 163.992 152.344 108.958 1.00105.88 C
ATOM 3027 CG GLN A 485 165.005 151.733 109.907 1.00105.88 C
ATOM 3028 CD GLN A 485 164.455 150.544 110.659 1.00105.88 C
ATOM 3029 OE1 GLN A 485 164.183 150.623 111.855 1.00105.88 O
ATOM 3030 NE2 GLN A 485 164.290 149.429 109.961 1.00105.88 N
ATOM 3031 N PHE A 486 164.012 155.411 109.852 1.00104.94 N
ATOM 3032 CA PHE A 486 164.670 156.487 110.585 1.00104.94 C
ATOM 3033 C PHE A 486 163.762 157.044 111.675 1.00104.94 C
ATOM 3034 O PHE A 486 164.178 157.196 112.830 1.00104.94 O
ATOM 3035 CB PHE A 486 165.095 157.587 109.613 1.00104.94 C
ATOM 3036 CG PHE A 486 165.869 158.699 110.254 1.00104.94 C
ATOM 3037 CD1 PHE A 486 166.947 158.427 111.074 1.00104.94 C
ATOM 3038 CD2 PHE A 486 165.522 160.018 110.029 1.00104.94 C
ATOM 3039 CE1 PHE A 486 167.661 159.450 111.662 1.00104.94 C
ATOM 3040 CE2 PHE A 486 166.232 161.044 110.613 1.00104.94 C
ATOM 3041 CZ PHE A 486 167.302 160.760 111.430 1.00104.94 C
ATOM 3042 N THR A 487 162.511 157.353 111.327 1.00 98.40 N
ATOM 3043 CA THR A 487 161.581 157.878 112.321 1.00 98.40 C
ATOM 3044 C THR A 487 161.266 156.833 113.383 1.00 98.40 C
ATOM 3045 O THR A 487 161.134 157.161 114.570 1.00 98.40 O
ATOM 3046 CB THR A 487 160.299 158.352 111.643 1.00 98.40 C
ATOM 3047 OG1 THR A 487 159.647 157.237 111.027 1.00 98.40 O
ATOM 3048 CG2 THR A 487 160.617 159.387 110.579 1.00 98.40 C
ATOM 3049 N TYR A 488 161.127 155.573 112.973 1.00 95.81 N
ATOM 3050 CA TYR A 488 160.949 154.498 113.943 1.00 95.81 C
ATOM 3051 C TYR A 488 162.037 154.551 115.010 1.00 95.81 C
ATOM 3052 O TYR A 488 161.756 154.580 116.217 1.00 95.81 O
ATOM 3053 CB TYR A 488 160.959 153.150 113.220 1.00 95.81 C
ATOM 3054 CG TYR A 488 160.787 151.949 114.116 1.00 95.81 C
ATOM 3055 CD1 TYR A 488 161.866 151.404 114.792 1.00 95.81 C
ATOM 3056 CD2 TYR A 488 159.549 151.351 114.274 1.00 95.81 C
ATOM 3057 CE1 TYR A 488 161.713 150.306 115.609 1.00 95.81 C

ATOM 3058 CE2 TYR A 488 159.389 150.252 115.086 1.00 95.81 C
ATOM 3059 CZ TYR A 488 160.472 149.734 115.753 1.00 95.81 C
ATOM 3060 OH TYR A 488 160.314 148.637 116.565 1.00 95.81 O
ATOM 3061 N ASP A 489 163.296 154.573 114.569 1.00 92.33 N
ATOM 3062 CA ASP A 489 164.414 154.596 115.505 1.00 92.33 C
ATOM 3063 C ASP A 489 164.400 155.862 116.354 1.00 92.33 C
ATOM 3064 O ASP A 489 164.666 155.815 117.565 1.00 92.33 O
ATOM 3065 CB ASP A 489 165.727 154.477 114.735 1.00 92.33 C
ATOM 3066 CG ASP A 489 166.871 154.024 115.606 1.00 92.33 C
ATOM 3067 OD1 ASP A 489 166.658 153.859 116.824 1.00 92.33 O
ATOM 3068 OD2 ASP A 489 167.984 153.832 115.072 1.00 92.33 O
ATOM 3069 N THR A 490 164.098 157.006 115.735 1.00 89.11 N
ATOM 3070 CA THR A 490 164.133 158.271 116.460 1.00 89.11 C
ATOM 3071 C THR A 490 163.055 158.338 117.533 1.00 89.11 C
ATOM 3072 O THR A 490 163.215 159.059 118.523 1.00 89.11 O
ATOM 3073 CB THR A 490 163.983 159.437 115.488 1.00 89.11 C
ATOM 3074 OG1 THR A 490 165.191 159.588 114.734 1.00 89.11 O
ATOM 3075 CG2 THR A 490 163.706 160.719 116.243 1.00 89.11 C
ATOM 3076 N LEU A 491 161.955 157.604 117.360 1.00 88.29 N
ATOM 3077 CA LEU A 491 160.945 157.549 118.414 1.00 88.29 C
ATOM 3078 C LEU A 491 161.319 156.544 119.495 1.00 88.29 C
ATOM 3079 O LEU A 491 161.085 156.788 120.691 1.00 88.29 O
ATOM 3080 CB LEU A 491 159.580 157.200 117.828 1.00 88.29 C
ATOM 3081 CG LEU A 491 158.774 158.376 117.292 1.00 88.29 C
ATOM 3082 CD1 LEU A 491 158.452 159.336 118.417 1.00 88.29 C
ATOM 3083 CD2 LEU A 491 159.551 159.068 116.204 1.00 88.29 C
ATOM 3084 N ARG A 492 161.862 155.392 119.092 1.00 87.90 N
ATOM 3085 CA ARG A 492 162.317 154.429 120.086 1.00 87.90 C
ATOM 3086 C ARG A 492 163.314 155.073 121.040 1.00 87.90 C
ATOM 3087 O ARG A 492 163.259 154.852 122.257 1.00 87.90 O
ATOM 3088 CB ARG A 492 162.929 153.210 119.398 1.00 87.90 C
ATOM 3089 CG ARG A 492 162.811 151.927 120.200 1.00 87.90 C
ATOM 3090 CD ARG A 492 163.186 150.711 119.369 1.00 87.90 C
ATOM 3091 NE ARG A 492 164.537 150.811 118.826 1.00 87.90 N

ATOM 3092 CZ ARG A 492 165.023 150.014 117.879 1.00 87.90 C
ATOM 3093 NH1 ARG A 492 166.265 150.177 117.445 1.00 87.90 N
ATOM 3094 NH2 ARG A 492 164.268 149.054 117.365 1.00 87.90 N
ATOM 3095 N GLY A 493 164.226 155.886 120.504 1.00 87.69 N
ATOM 3096 CA GLY A 493 165.191 156.559 121.361 1.00 87.69 C
ATOM 3097 C GLY A 493 164.535 157.461 122.389 1.00 87.69 C
ATOM 3098 O GLY A 493 164.930 157.480 123.558 1.00 87.69 O
ATOM 3099 N TYR A 494 163.524 158.221 121.969 1.00 85.53 N
ATOM 3100 CA TYR A 494 162.831 159.126 122.880 1.00 85.53 C
ATOM 3101 C TYR A 494 162.146 158.355 124.004 1.00 85.53 C
ATOM 3102 O TYR A 494 162.254 158.714 125.190 1.00 85.53 O
ATOM 3103 CB TYR A 494 161.821 159.952 122.084 1.00 85.53 C
ATOM 3104 CG TYR A 494 161.088 161.014 122.859 1.00 85.53 C
ATOM 3105 CD1 TYR A 494 160.048 160.686 123.711 1.00 85.53 C
ATOM 3106 CD2 TYR A 494 161.415 162.351 122.713 1.00 85.53 C
ATOM 3107 CE1 TYR A 494 159.369 161.656 124.411 1.00 85.53 C
ATOM 3108 CE2 TYR A 494 160.740 163.328 123.408 1.00 85.53 C
ATOM 3109 CZ TYR A 494 159.718 162.975 124.256 1.00 85.53 C
ATOM 3110 OH TYR A 494 159.039 163.945 124.954 1.00 85.53 O
ATOM 3111 N ILE A 495 161.424 157.292 123.646 1.00 84.70 N
ATOM 3112 CA ILE A 495 160.745 156.505 124.672 1.00 84.70 C
ATOM 3113 C ILE A 495 161.758 155.915 125.645 1.00 84.70 C
ATOM 3114 O ILE A 495 161.535 155.896 126.864 1.00 84.70 O
ATOM 3115 CB ILE A 495 159.872 155.413 124.033 1.00 84.70 C
ATOM 3116 CG1 ILE A 495 158.848 156.036 123.089 1.00 84.70 C
ATOM 3117 CG2 ILE A 495 159.165 154.617 125.106 1.00 84.70 C
ATOM 3118 CD1 ILE A 495 157.868 155.040 122.529 1.00 84.70 C
ATOM 3119 N ASN A 496 162.884 155.422 125.124 1.00 85.94 N
ATOM 3120 CA ASN A 496 163.916 154.876 125.999 1.00 85.94 C
ATOM 3121 C ASN A 496 164.448 155.938 126.949 1.00 85.94 C
ATOM 3122 O ASN A 496 164.677 155.666 128.133 1.00 85.94 O
ATOM 3123 CB ASN A 496 165.049 154.286 125.166 1.00 85.94 C
ATOM 3124 CG ASN A 496 164.798 152.850 124.786 1.00 85.94 C
ATOM 3125 OD1 ASN A 496 163.738 152.297 125.074 1.00 85.94 O

ATOM 3126 ND2 ASN A 496 165.773 152.232 124.134 1.00 85.94 N
ATOM 3127 N ARG A 497 164.669 157.151 126.445 1.00 89.05 N
ATOM 3128 CA ARG A 497 165.134 158.233 127.304 1.00 89.05 C
ATOM 3129 C ARG A 497 164.176 158.454 128.468 1.00 89.05 C
ATOM 3130 O ARG A 497 164.595 158.543 129.629 1.00 89.05 O
ATOM 3131 CB ARG A 497 165.295 159.514 126.489 1.00 89.05 C
ATOM 3132 CG ARG A 497 165.920 160.659 127.259 1.00 89.05 C
ATOM 3133 CD ARG A 497 167.369 160.363 127.604 1.00 89.05 C
ATOM 3134 NE ARG A 497 167.601 160.382 129.045 1.00 89.05 N
ATOM 3135 CZ ARG A 497 168.791 160.220 129.613 1.00 89.05 C
ATOM 3136 NH1 ARG A 497 168.907 160.251 130.933 1.00 89.05 N
ATOM 3137 NH2 ARG A 497 169.866 160.027 128.861 1.00 89.05 N
ATOM 3138 N ALA A 498 162.879 158.546 128.174 1.00 87.15 N
ATOM 3139 CA ALA A 498 161.915 158.781 129.250 1.00 87.15 C
ATOM 3140 C ALA A 498 161.914 157.634 130.258 1.00 87.15 C
ATOM 3141 O ALA A 498 161.904 157.859 131.483 1.00 87.15 O
ATOM 3142 CB ALA A 498 160.518 158.986 128.670 1.00 87.15 C
ATOM 3143 N LEU A 499 161.910 156.394 129.763 1.00 85.86 N
ATOM 3144 CA LEU A 499 161.889 155.250 130.666 1.00 85.86 C
ATOM 3145 C LEU A 499 163.128 155.211 131.545 1.00 85.86 C
ATOM 3146 O LEU A 499 163.054 154.788 132.703 1.00 85.86 O
ATOM 3147 CB LEU A 499 161.759 153.950 129.875 1.00 85.86 C
ATOM 3148 CG LEU A 499 160.362 153.633 129.348 1.00 85.86 C
ATOM 3149 CD1 LEU A 499 160.280 152.190 128.887 1.00 85.86 C
ATOM 3150 CD2 LEU A 499 159.320 153.921 130.411 1.00 85.86 C
ATOM 3151 N ALA A 500 164.274 155.640 131.019 1.00 85.86 N
ATOM 3152 CA ALA A 500 165.484 155.662 131.830 1.00 85.86 C
ATOM 3153 C ALA A 500 165.485 156.819 132.815 1.00 85.86 C
ATOM 3154 O ALA A 500 166.141 156.737 133.857 1.00 85.86 O
ATOM 3155 CB ALA A 500 166.722 155.736 130.938 1.00 85.86 C
ATOM 3156 N GLN A 501 164.770 157.901 132.508 1.00 88.74 N
ATOM 3157 CA GLN A 501 164.720 159.025 133.435 1.00 88.74 C
ATOM 3158 C GLN A 501 163.739 158.810 134.580 1.00 88.74 C
ATOM 3159 O GLN A 501 163.848 159.494 135.602 1.00 88.74 O

ATOM 3160 CB GLN A 501 164.354 160.311 132.697 1.00 88.74 C
ATOM 3161 CG GLN A 501 164.657 161.574 133.481 1.00 88.74 C
ATOM 3162 CD GLN A 501 164.593 162.819 132.622 1.00 88.74 C
ATOM 3163 OE1 GLN A 501 163.834 162.883 131.656 1.00 88.74 O
ATOM 3164 NE2 GLN A 501 165.394 163.818 132.969 1.00 88.74 N
ATOM 3165 N ILE A 502 162.778 157.895 134.433 1.00 87.40 N
ATOM 3166 CA ILE A 502 161.855 157.650 135.549 1.00 87.40 C
ATOM 3167 C ILE A 502 162.538 156.901 136.702 1.00 87.40 C
ATOM 3168 O ILE A 502 162.183 157.086 137.881 1.00 87.40 O
ATOM 3169 CB ILE A 502 160.610 156.893 135.057 1.00 87.40 C
ATOM 3170 CG1 ILE A 502 159.797 157.766 134.103 1.00 87.40 C
ATOM 3171 CG2 ILE A 502 159.758 156.462 136.230 1.00 87.40 C
ATOM 3172 CD1 ILE A 502 159.505 159.141 134.642 1.00 87.40 C
ATOM 3173 N ALA A 503 163.517 156.048 136.391 1.00 88.25 N
ATOM 3174 CA ALA A 503 164.140 155.225 137.424 1.00 88.25 C
ATOM 3175 C ALA A 503 164.886 156.065 138.453 1.00 88.25 C
ATOM 3176 O ALA A 503 164.947 155.690 139.628 1.00 88.25 O
ATOM 3177 CB ALA A 503 165.084 154.210 136.785 1.00 88.25 C
ATOM 3178 N GLU A 504 165.474 157.188 138.037 1.00 95.24 N
ATOM 3179 CA GLU A 504 166.134 158.073 138.991 1.00 95.24 C
ATOM 3180 C GLU A 504 165.169 158.513 140.083 1.00 95.24 C
ATOM 3181 O GLU A 504 165.470 158.410 141.281 1.00 95.24 O
ATOM 3182 CB GLU A 504 166.698 159.294 138.270 1.00 95.24 C
ATOM 3183 CG GLU A 504 168.054 159.099 137.634 1.00 95.24 C
ATOM 3184 CD GLU A 504 168.585 160.385 137.032 1.00 95.24 C
ATOM 3185 OE1 GLU A 504 167.892 161.419 137.132 1.00 95.24 O
ATOM 3186 OE2 GLU A 504 169.691 160.368 136.459 1.00 95.24 O
ATOM 3187 N ALA A 505 164.016 159.049 139.682 1.00 88.53 N
ATOM 3188 CA ALA A 505 163.022 159.477 140.656 1.00 88.53 C
ATOM 3189 C ALA A 505 162.582 158.316 141.529 1.00 88.53 C
ATOM 3190 O ALA A 505 162.419 158.470 142.745 1.00 88.53 O
ATOM 3191 CB ALA A 505 161.820 160.099 139.949 1.00 88.53 C
ATOM 3192 N TRP A 506 162.408 157.136 140.947 1.00 91.43 N
ATOM 3193 CA TRP A 506 161.978 155.980 141.739 1.00 91.43 C

ATOM 3194 C TRP A 506 162.995 155.519 142.747 1.00 91.43 C
ATOM 3195 O TRP A 506 162.651 154.942 143.748 1.00 91.43 O
ATOM 3196 CB TRP A 506 161.536 154.810 140.887 1.00 91.43 C
ATOM 3197 CG TRP A 506 160.267 154.265 141.387 1.00 91.43 C
ATOM 3198 CD1 TRP A 506 159.998 153.877 142.654 1.00 91.43 C
ATOM 3199 CD2 TRP A 506 159.070 154.076 140.647 1.00 91.43 C
ATOM 3200 NE1 TRP A 506 158.707 153.444 142.753 1.00 91.43 N
ATOM 3201 CE2 TRP A 506 158.115 153.559 141.527 1.00 91.43 C
ATOM 3202 CE3 TRP A 506 158.714 154.288 139.320 1.00 91.43 C
ATOM 3203 CZ2 TRP A 506 156.836 153.247 141.126 1.00 91.43 C
ATOM 3204 CZ3 TRP A 506 157.446 153.985 138.926 1.00 91.43 C
ATOM 3205 CH2 TRP A 506 156.521 153.466 139.819 1.00 91.43 C
ATOM 3206 N CYS A 507 164.258 155.706 142.447 1.00 89.72 N
ATOM 3207 CA CYS A 507 165.310 155.400 143.414 1.00 89.72 C
ATOM 3208 C CYS A 507 165.342 156.435 144.532 1.00 89.72 C
ATOM 3209 O CYS A 507 165.399 156.088 145.720 1.00 89.72 O
ATOM 3210 CB CYS A 507 166.662 155.327 142.704 1.00 89.72 C
ATOM 3211 SG CYS A 507 168.059 154.852 143.747 1.00 89.72 S
ATOM 3212 N VAL A 508 165.321 157.719 144.168 1.00 85.32 N
ATOM 3213 CA VAL A 508 165.309 158.763 145.190 1.00 85.32 C
ATOM 3214 C VAL A 508 164.096 158.610 146.091 1.00 85.32 C
ATOM 3215 O VAL A 508 164.126 159.008 147.261 1.00 85.32 O
ATOM 3216 CB VAL A 508 165.352 160.159 144.544 1.00 85.32 C
ATOM 3217 CG1 VAL A 508 164.843 161.203 145.521 1.00 85.32 C
ATOM 3218 CG2 VAL A 508 166.762 160.486 144.097 1.00 85.32 C
ATOM 3219 N ASP A 509 163.010 158.039 145.570 1.00 88.12 N
ATOM 3220 CA ASP A 509 161.847 157.762 146.404 1.00 88.12 C
ATOM 3221 C ASP A 509 162.130 156.627 147.378 1.00 88.12 C
ATOM 3222 O ASP A 509 161.992 156.787 148.595 1.00 88.12 O
ATOM 3223 CB ASP A 509 160.640 157.427 145.532 1.00 88.12 C
ATOM 3224 CG ASP A 509 159.479 156.888 146.336 1.00 88.12 C
ATOM 3225 OD1 ASP A 509 158.656 157.698 146.810 1.00 88.12 O
ATOM 3226 OD2 ASP A 509 159.394 155.653 146.500 1.00 88.12 O
ATOM 3227 N GLN A 510 162.530 155.465 146.860 1.00 87.06 N

ATOM 3228 CA GLN A 510 162.840 154.346 147.744 1.00 87.06 C
ATOM 3229 C GLN A 510 163.923 154.676 148.760 1.00 87.06 C
ATOM 3230 O GLN A 510 164.129 153.895 149.693 1.00 87.06 O
ATOM 3231 CB GLN A 510 163.275 153.123 146.940 1.00 87.06 C
ATOM 3232 CG GLN A 510 162.134 152.307 146.374 1.00 87.06 C
ATOM 3233 CD GLN A 510 162.615 151.027 145.728 1.00 87.06 C
ATOM 3234 OE1 GLN A 510 163.814 150.749 145.697 1.00 87.06 O
ATOM 3235 NE2 GLN A 510 161.684 150.236 145.212 1.00 87.06 N
ATOM 3236 N ARG A 511 164.628 155.795 148.597 1.00 81.00 N
ATOM 3237 CA ARG A 511 165.676 156.135 149.556 1.00 81.00 C
ATOM 3238 C ARG A 511 165.108 156.585 150.901 1.00 81.00 C
ATOM 3239 O ARG A 511 165.766 156.429 151.935 1.00 81.00 O
ATOM 3240 CB ARG A 511 166.581 157.215 148.974 1.00 81.00 C
ATOM 3241 CG ARG A 511 167.596 157.770 149.947 1.00 81.00 C
ATOM 3242 CD ARG A 511 168.668 158.532 149.198 1.00 81.00 C
ATOM 3243 NE ARG A 511 169.297 159.563 150.016 1.00 81.00 N
ATOM 3244 CZ ARG A 511 170.153 160.463 149.545 1.00 81.00 C
ATOM 3245 NH1 ARG A 511 170.481 160.458 148.260 1.00 81.00 N
ATOM 3246 NH2 ARG A 511 170.683 161.367 150.357 1.00 81.00 N
ATOM 3247 N ARG A 512 163.899 157.158 150.918 1.00 72.66 N
ATOM 3248 CA ARG A 512 163.329 157.656 152.170 1.00 72.66 C
ATOM 3249 C ARG A 512 162.701 156.554 153.014 1.00 72.66 C
ATOM 3250 O ARG A 512 162.595 156.704 154.243 1.00 72.66 O
ATOM 3251 CB ARG A 512 162.278 158.726 151.886 1.00 72.66 C
ATOM 3252 CG ARG A 512 162.796 159.932 151.136 1.00 72.66 C
ATOM 3253 CD ARG A 512 161.676 160.920 150.870 1.00 72.66 C
ATOM 3254 NE ARG A 512 162.021 161.871 149.818 1.00 72.66 N
ATOM 3255 CZ ARG A 512 162.822 162.917 149.989 1.00 72.66 C
ATOM 3256 NH1 ARG A 512 163.364 163.153 151.175 1.00 72.66 N
ATOM 3257 NH2 ARG A 512 163.081 163.728 148.973 1.00 72.66 N
ATOM 3258 N THR A 513 162.264 155.466 152.382 1.00 65.37 N
ATOM 3259 CA THR A 513 161.664 154.373 153.131 1.00 65.37 C
ATOM 3260 C THR A 513 162.619 153.825 154.178 1.00 65.37 C
ATOM 3261 O THR A 513 162.175 153.292 155.197 1.00 65.37 O

ATOM 3262 CB THR A 513 161.223 153.264 152.180 1.00 65.37 C
ATOM 3263 OG1 THR A 513 160.065 153.694 151.455 1.00 65.37 O
ATOM 3264 CG2 THR A 513 160.889 152.004 152.950 1.00 65.37 C
ATOM 3265 N LEU A 514 163.928 153.977 153.975 1.00 64.70 N
ATOM 3266 CA LEU A 514 164.870 153.460 154.962 1.00 64.70 C
ATOM 3267 C LEU A 514 164.851 154.292 156.238 1.00 64.70 C
ATOM 3268 O LEU A 514 164.814 153.737 157.342 1.00 64.70 O
ATOM 3269 CB LEU A 514 166.276 153.401 154.373 1.00 64.70 C
ATOM 3270 CG LEU A 514 166.489 152.268 153.369 1.00 64.70 C
ATOM 3271 CD1 LEU A 514 167.968 152.083 153.076 1.00 64.70 C
ATOM 3272 CD2 LEU A 514 165.869 150.976 153.873 1.00 64.70 C
ATOM 3273 N GLU A 515 164.873 155.620 156.118 1.00 56.89 N
ATOM 3274 CA GLU A 515 164.741 156.453 157.310 1.00 56.89 C
ATOM 3275 C GLU A 515 163.401 156.217 157.992 1.00 56.89 C
ATOM 3276 O GLU A 515 163.321 156.147 159.229 1.00 56.89 O
ATOM 3277 CB GLU A 515 164.906 157.926 156.944 1.00 56.89 C
ATOM 3278 CG GLU A 515 164.458 158.893 158.032 1.00 56.89 C
ATOM 3279 CD GLU A 515 165.390 158.912 159.232 1.00 56.89 C
ATOM 3280 OE1 GLU A 515 164.891 158.885 160.376 1.00 56.89 O
ATOM 3281 OE2 GLU A 515 166.621 158.959 159.033 1.00 56.89 O
ATOM 3282 N VAL A 516 162.334 156.090 157.201 1.00 54.06 N
ATOM 3283 CA VAL A 516 161.022 155.834 157.788 1.00 54.06 C
ATOM 3284 C VAL A 516 161.041 154.537 158.589 1.00 54.06 C
ATOM 3285 O VAL A 516 160.583 154.489 159.737 1.00 54.06 O
ATOM 3286 CB VAL A 516 159.935 155.812 156.701 1.00 54.06 C
ATOM 3287 CG1 VAL A 516 158.688 155.146 157.227 1.00 54.06 C
ATOM 3288 CG2 VAL A 516 159.620 157.220 156.250 1.00 54.06 C
ATOM 3289 N PHE A 517 161.574 153.464 157.998 1.00 52.95 N
ATOM 3290 CA PHE A 517 161.597 152.181 158.688 1.00 52.95 C
ATOM 3291 C PHE A 517 162.521 152.191 159.892 1.00 52.95 C
ATOM 3292 O PHE A 517 162.261 151.481 160.859 1.00 52.95 O
ATOM 3293 CB PHE A 517 161.995 151.053 157.741 1.00 52.95 C
ATOM 3294 CG PHE A 517 160.877 150.579 156.865 1.00 52.95 C
ATOM 3295 CD1 PHE A 517 159.575 150.964 157.117 1.00 52.95 C

ATOM 3296 CD2 PHE A 517 161.123 149.721 155.812 1.00 52.95 C
ATOM 3297 CE1 PHE A 517 158.543 150.522 156.320 1.00 52.95 C
ATOM 3298 CE2 PHE A 517 160.093 149.276 155.014 1.00 52.95 C
ATOM 3299 CZ PHE A 517 158.801 149.677 155.269 1.00 52.95 C
ATOM 3300 N LYS A 518 163.591 152.981 159.873 1.00 52.81 N
ATOM 3301 CA LYS A 518 164.413 153.097 161.072 1.00 52.81 C
ATOM 3302 C LYS A 518 163.611 153.714 162.213 1.00 52.81 C
ATOM 3303 O LYS A 518 163.454 153.117 163.294 1.00 52.81 O
ATOM 3304 CB LYS A 518 165.659 153.927 160.773 1.00 52.81 C
ATOM 3305 CG LYS A 518 166.597 154.060 161.950 1.00 52.81 C
ATOM 3306 CD LYS A 518 167.779 154.936 161.605 1.00 52.81 C
ATOM 3307 CE LYS A 518 168.299 154.621 160.220 1.00 52.81 C
ATOM 3308 NZ LYS A 518 169.518 155.410 159.897 1.00 52.81 N
ATOM 3309 N GLU A 519 163.080 154.916 161.981 1.00 52.29 N
ATOM 3310 CA GLU A 519 162.290 155.569 163.018 1.00 52.29 C
ATOM 3311 C GLU A 519 161.171 154.664 163.516 1.00 52.29 C
ATOM 3312 O GLU A 519 160.873 154.638 164.713 1.00 52.29 O
ATOM 3313 CB GLU A 519 161.729 156.890 162.501 1.00 52.29 C
ATOM 3314 CG GLU A 519 162.794 157.923 162.214 1.00 52.29 C
ATOM 3315 CD GLU A 519 163.750 158.100 163.371 1.00 52.29 C
ATOM 3316 OE1 GLU A 519 163.402 157.691 164.497 1.00 52.29 O
ATOM 3317 OE2 GLU A 519 164.852 158.644 163.155 1.00 52.29 O
ATOM 3318 N LEU A 520 160.541 153.908 162.613 1.00 47.03 N
ATOM 3319 CA LEU A 520 159.485 152.997 163.043 1.00 47.03 C
ATOM 3320 C LEU A 520 160.038 151.817 163.831 1.00 47.03 C
ATOM 3321 O LEU A 520 159.389 151.345 164.769 1.00 47.03 O
ATOM 3322 CB LEU A 520 158.693 152.493 161.839 1.00 47.03 C
ATOM 3323 CG LEU A 520 157.738 153.476 161.170 1.00 47.03 C
ATOM 3324 CD1 LEU A 520 156.833 152.740 160.209 1.00 47.03 C
ATOM 3325 CD2 LEU A 520 156.926 154.210 162.209 1.00 47.03 C
ATOM 3326 N SER A 521 161.221 151.320 163.468 1.00 47.73 N
ATOM 3327 CA SER A 521 161.840 150.242 164.220 1.00 47.73 C
ATOM 3328 C SER A 521 162.179 150.674 165.627 1.00 47.73 C
ATOM 3329 O SER A 521 162.408 149.821 166.488 1.00 47.73 O

ATOM 3330 CB SER A 521 163.104 149.753 163.522 1.00 47.73 C
ATOM 3331 OG SER A 521 164.198 150.595 163.832 1.00 47.73 O
ATOM 3332 N LYS A 522 162.231 151.967 165.877 1.00 49.54 N
ATOM 3333 CA LYS A 522 162.300 152.260 167.311 1.00 49.54 C
ATOM 3334 C LYS A 522 160.960 152.028 168.044 1.00 49.54 C
ATOM 3335 O LYS A 522 160.850 152.468 169.186 1.00 49.54 O
ATOM 3336 CB LYS A 522 162.773 153.692 167.553 1.00 49.54 C
ATOM 3337 CG LYS A 522 164.260 153.887 167.346 1.00 49.54 C
ATOM 3338 CD LYS A 522 164.629 155.355 167.366 1.00 49.54 C
ATOM 3339 CE LYS A 522 166.011 155.578 166.782 1.00 49.54 C
ATOM 3340 NZ LYS A 522 166.282 157.021 166.542 1.00 49.54 N
ATOM 3341 N ILE A 523 159.944 151.384 167.464 1.00 48.18 N
ATOM 3342 CA ILE A 523 158.684 151.121 168.146 1.00 48.18 C
ATOM 3343 C ILE A 523 158.451 149.631 168.359 1.00 48.18 C
ATOM 3344 O ILE A 523 157.985 149.219 169.425 1.00 48.18 O
ATOM 3345 CB ILE A 523 157.495 151.739 167.383 1.00 48.18 C
ATOM 3346 CG1 ILE A 523 157.496 153.258 167.513 1.00 48.18 C
ATOM 3347 CG2 ILE A 523 156.192 151.173 167.897 1.00 48.18 C
ATOM 3348 CD1 ILE A 523 156.361 153.918 166.777 1.00 48.18 C
ATOM 3349 N ASN A 524 158.747 148.808 167.357 1.00 48.28 N
ATOM 3350 CA ASN A 524 158.530 147.370 167.440 1.00 48.28 C
ATOM 3351 C ASN A 524 159.400 146.656 166.413 1.00 48.28 C
ATOM 3352 O ASN A 524 158.956 146.424 165.283 1.00 48.28 O
ATOM 3353 CB ASN A 524 157.055 147.038 167.218 1.00 48.28 C
ATOM 3354 CG ASN A 524 156.669 145.696 167.793 1.00 48.28 C
ATOM 3355 OD1 ASN A 524 157.385 145.133 168.618 1.00 48.28 O
ATOM 3356 ND2 ASN A 524 155.529 145.174 167.362 1.00 48.28 N
ATOM 3357 N PRO A 525 160.637 146.294 166.758 1.00 43.70 N
ATOM 3358 CA PRO A 525 161.537 145.726 165.740 1.00 43.70 C
ATOM 3359 C PRO A 525 161.040 144.423 165.138 1.00 43.70 C
ATOM 3360 O PRO A 525 161.233 144.185 163.938 1.00 43.70 O
ATOM 3361 CB PRO A 525 162.849 145.528 166.511 1.00 43.70 C
ATOM 3362 CG PRO A 525 162.730 146.393 167.721 1.00 43.70 C
ATOM 3363 CD PRO A 525 161.287 146.403 168.072 1.00 43.70 C

ATOM 3364 N SER A 526 160.417 143.561 165.942 1.00 44.51 N
ATOM 3365 CA SER A 526 159.953 142.277 165.430 1.00 44.51 C
ATOM 3366 C SER A 526 159.026 142.464 164.238 1.00 44.51 C
ATOM 3367 O SER A 526 159.160 141.778 163.220 1.00 44.51 O
ATOM 3368 CB SER A 526 159.250 141.492 166.535 1.00 44.51 C
ATOM 3369 OG SER A 526 160.014 141.490 167.726 1.00 44.51 O
ATOM 3370 N ALA A 527 158.082 143.398 164.342 1.00 46.43 N
ATOM 3371 CA ALA A 527 157.114 143.591 163.269 1.00 46.43 C
ATOM 3372 C ALA A 527 157.789 144.091 161.998 1.00 46.43 C
ATOM 3373 O ALA A 527 157.532 143.576 160.905 1.00 46.43 O
ATOM 3374 CB ALA A 527 156.023 144.560 163.717 1.00 46.43 C
ATOM 3375 N ILE A 528 158.660 145.093 162.120 1.00 45.98 N
ATOM 3376 CA ILE A 528 159.321 145.648 160.942 1.00 45.98 C
ATOM 3377 C ILE A 528 160.163 144.588 160.246 1.00 45.98 C
ATOM 3378 O ILE A 528 160.155 144.474 159.011 1.00 45.98 O
ATOM 3379 CB ILE A 528 160.166 146.871 161.334 1.00 45.98 C
ATOM 3380 CG1 ILE A 528 159.265 148.001 161.818 1.00 45.98 C
ATOM 3381 CG2 ILE A 528 161.003 147.327 160.164 1.00 45.98 C
ATOM 3382 CD1 ILE A 528 158.179 148.361 160.845 1.00 45.98 C
ATOM 3383 N LEU A 529 160.911 143.799 161.017 1.00 46.68 N
ATOM 3384 CA LEU A 529 161.754 142.789 160.389 1.00 46.68 C
ATOM 3385 C LEU A 529 160.917 141.680 159.763 1.00 46.68 C
ATOM 3386 O LEU A 529 161.208 141.233 158.649 1.00 46.68 O
ATOM 3387 CB LEU A 529 162.746 142.226 161.401 1.00 46.68 C
ATOM 3388 CG LEU A 529 163.898 143.177 161.715 1.00 46.68 C
ATOM 3389 CD1 LEU A 529 165.013 142.455 162.441 1.00 46.68 C
ATOM 3390 CD2 LEU A 529 164.412 143.807 160.442 1.00 46.68 C
ATOM 3391 N SER A 530 159.869 141.224 160.452 1.00 48.59 N
ATOM 3392 CA SER A 530 158.984 140.240 159.843 1.00 48.59 C
ATOM 3393 C SER A 530 158.337 140.786 158.581 1.00 48.59 C
ATOM 3394 O SER A 530 157.978 140.016 157.685 1.00 48.59 O
ATOM 3395 CB SER A 530 157.911 139.807 160.839 1.00 48.59 C
ATOM 3396 OG SER A 530 158.486 139.443 162.078 1.00 48.59 O
ATOM 3397 N ALA A 531 158.175 142.105 158.493 1.00 49.89 N

ATOM 3398 CA ALA A 531 157.562 142.694 157.310 1.00 49.89 C
ATOM 3399 C ALA A 531 158.536 142.757 156.142 1.00 49.89 C
ATOM 3400 O ALA A 531 158.148 142.502 154.998 1.00 49.89 O
ATOM 3401 CB ALA A 531 157.031 144.090 157.630 1.00 49.89 C
ATOM 3402 N ILE A 532 159.797 143.098 156.399 1.00 49.61 N
ATOM 3403 CA ILE A 532 160.738 143.242 155.291 1.00 49.61 C
ATOM 3404 C ILE A 532 161.483 141.936 155.046 1.00 49.61 C
ATOM 3405 O ILE A 532 162.403 141.885 154.225 1.00 49.61 O
ATOM 3406 CB ILE A 532 161.732 144.394 155.522 1.00 49.61 C
ATOM 3407 CG1 ILE A 532 162.675 144.082 156.676 1.00 49.61 C
ATOM 3408 CG2 ILE A 532 160.991 145.683 155.801 1.00 49.61 C
ATOM 3409 CD1 ILE A 532 163.812 145.064 156.789 1.00 49.61 C
ATOM 3410 N TYR A 533 161.097 140.871 155.751 1.00 56.43 N
ATOM 3411 CA TYR A 533 161.659 139.549 155.499 1.00 56.43 C
ATOM 3412 C TYR A 533 160.623 138.470 155.227 1.00 56.43 C
ATOM 3413 O TYR A 533 161.013 137.351 154.881 1.00 56.43 O
ATOM 3414 CB TYR A 533 162.532 139.093 156.678 1.00 56.43 C
ATOM 3415 CG TYR A 533 163.936 139.643 156.659 1.00 56.43 C
ATOM 3416 CD1 TYR A 533 164.438 140.273 155.534 1.00 56.43 C
ATOM 3417 CD2 TYR A 533 164.760 139.530 157.766 1.00 56.43 C
ATOM 3418 CE1 TYR A 533 165.721 140.778 155.513 1.00 56.43 C
ATOM 3419 CE2 TYR A 533 166.044 140.031 157.754 1.00 56.43 C
ATOM 3420 CZ TYR A 533 166.519 140.654 156.626 1.00 56.43 C
ATOM 3421 OH TYR A 533 167.798 141.155 156.608 1.00 56.43 O
ATOM 3422 N ASN A 534 159.333 138.756 155.378 1.00 59.26 N
ATOM 3423 CA ASN A 534 158.266 137.792 155.115 1.00 59.26 C
ATOM 3424 C ASN A 534 158.524 136.475 155.852 1.00 59.26 C
ATOM 3425 O ASN A 534 158.713 135.415 155.258 1.00 59.26 O
ATOM 3426 CB ASN A 534 158.109 137.560 153.610 1.00 59.26 C
ATOM 3427 CG ASN A 534 157.274 138.630 152.943 1.00 59.26 C
ATOM 3428 OD1 ASN A 534 157.696 139.242 151.963 1.00 59.26 O
ATOM 3429 ND2 ASN A 534 156.080 138.863 153.471 1.00 59.26 N
ATOM 3430 N LYS A 535 158.528 136.575 157.173 1.00 59.00 N
ATOM 3431 CA LYS A 535 158.817 135.435 158.029 1.00 59.00 C

ATOM 3432 C LYS A 535 158.571 135.848 159.476 1.00 59.00 C
ATOM 3433 O LYS A 535 158.533 137.042 159.779 1.00 59.00 O
ATOM 3434 CB LYS A 535 160.266 134.958 157.846 1.00 59.00 C
ATOM 3435 CG LYS A 535 160.492 133.485 158.102 1.00 59.00 C
ATOM 3436 CD LYS A 535 161.968 133.151 157.994 1.00 59.00 C
ATOM 3437 CE LYS A 535 162.594 133.842 156.795 1.00 59.00 C
ATOM 3438 NZ LYS A 535 164.019 133.459 156.616 1.00 59.00 N
ATOM 3439 N PRO A 536 158.391 134.882 160.376 1.00 56.09 N
ATOM 3440 CA PRO A 536 158.306 135.212 161.803 1.00 56.09 C
ATOM 3441 C PRO A 536 159.681 135.331 162.437 1.00 56.09 C
ATOM 3442 O PRO A 536 160.494 134.408 162.342 1.00 56.09 O
ATOM 3443 CB PRO A 536 157.521 134.033 162.382 1.00 56.09 C
ATOM 3444 CG PRO A 536 157.912 132.896 161.515 1.00 56.09 C
ATOM 3445 CD PRO A 536 158.098 133.460 160.127 1.00 56.09 C
ATOM 3446 N ILE A 537 159.950 136.460 163.092 1.00 49.90 N
ATOM 3447 CA ILE A 537 161.267 136.758 163.635 1.00 49.90 C
ATOM 3448 C ILE A 537 161.105 137.425 164.993 1.00 49.90 C
ATOM 3449 O ILE A 537 160.064 138.003 165.306 1.00 49.90 O
ATOM 3450 CB ILE A 537 162.082 137.651 162.675 1.00 49.90 C
ATOM 3451 CG1 ILE A 537 162.531 136.844 161.463 1.00 49.90 C
ATOM 3452 CG2 ILE A 537 163.283 138.242 163.364 1.00 49.90 C
ATOM 3453 CD1 ILE A 537 163.428 137.609 160.534 1.00 49.90 C
ATOM 3454 N ALA A 538 162.156 137.331 165.806 1.00 46.53 N
ATOM 3455 CA ALA A 538 162.179 137.926 167.139 1.00 46.53 C
ATOM 3456 C ALA A 538 163.487 138.684 167.294 1.00 46.53 C
ATOM 3457 O ALA A 538 164.551 138.067 167.384 1.00 46.53 O
ATOM 3458 CB ALA A 538 162.038 136.863 168.224 1.00 46.53 C
ATOM 3459 N ALA A 539 163.411 140.009 167.333 1.00 41.43 N
ATOM 3460 CA ALA A 539 164.582 140.868 167.414 1.00 41.43 C
ATOM 3461 C ALA A 539 164.602 141.619 168.739 1.00 41.43 C
ATOM 3462 O ALA A 539 163.656 141.571 169.525 1.00 41.43 O
ATOM 3463 CB ALA A 539 164.611 141.851 166.241 1.00 41.43 C
ATOM 3464 N ARG A 540 165.705 142.323 168.979 1.00 42.05 N
ATOM 3465 CA ARG A 540 165.884 143.087 170.206 1.00 42.05 C

ATOM 3466 C ARG A 540 167.133 143.941 170.070 1.00 42.05 C
ATOM 3467 O ARG A 540 168.094 143.546 169.408 1.00 42.05 O
ATOM 3468 CB ARG A 540 165.998 142.167 171.425 1.00 42.05 C
ATOM 3469 CG ARG A 540 166.405 142.876 172.698 1.00 42.05 C
ATOM 3470 CD ARG A 540 166.339 141.948 173.894 1.00 42.05 C
ATOM 3471 NE ARG A 540 167.543 141.136 174.029 1.00 42.05 N
ATOM 3472 CZ ARG A 540 168.696 141.585 174.510 1.00 42.05 C
ATOM 3473 NH1 ARG A 540 169.740 140.777 174.600 1.00 42.05 N
ATOM 3474 NH2 ARG A 540 168.807 142.846 174.896 1.00 42.05 N
ATOM 3475 N PHE A 541 167.111 145.110 170.705 1.00 41.43 N
ATOM 3476 CA PHE A 541 168.232 146.036 170.629 1.00 41.43 C
ATOM 3477 C PHE A 541 169.350 145.626 171.576 1.00 41.43 C
ATOM 3478 O PHE A 541 169.103 145.187 172.701 1.00 41.43 O
ATOM 3479 CB PHE A 541 167.780 147.456 170.957 1.00 41.43 C
ATOM 3480 CG PHE A 541 167.239 148.208 169.782 1.00 41.43 C
ATOM 3481 CD1 PHE A 541 168.092 148.842 168.904 1.00 41.43 C
ATOM 3482 CD2 PHE A 541 165.880 148.291 169.562 1.00 41.43 C
ATOM 3483 CE1 PHE A 541 167.602 149.536 167.827 1.00 41.43 C
ATOM 3484 CE2 PHE A 541 165.385 148.985 168.487 1.00 41.43 C
ATOM 3485 CZ PHE A 541 166.248 149.608 167.618 1.00 41.43 C
ATOM 3486 N MET A 542 170.586 145.784 171.112 1.00 39.59 N
ATOM 3487 CA MET A 542 171.768 145.469 171.903 1.00 39.59 C
ATOM 3488 C MET A 542 172.642 146.705 172.052 1.00 39.59 C
ATOM 3489 O MET A 542 173.853 146.651 171.824 1.00 39.59 O
ATOM 3490 CB MET A 542 172.549 144.320 171.271 1.00 39.59 C
ATOM 3491 CG MET A 542 171.939 142.963 171.541 1.00 39.59 C
ATOM 3492 SD MET A 542 172.684 141.652 170.567 1.00 39.59 S
ATOM 3493 CE MET A 542 172.126 140.218 171.474 1.00 39.59 C
ATOM 3494 N GLY A 543 172.033 147.821 172.433 1.00 42.83 N
ATOM 3495 CA GLY A 543 172.708 149.100 172.458 1.00 42.83 C
ATOM 3496 C GLY A 543 172.488 149.895 171.190 1.00 42.83 C
ATOM 3497 O GLY A 543 171.784 150.906 171.208 1.00 42.83 O
ATOM 3498 N ASP A 544 173.070 149.450 170.078 1.00 43.84 N
ATOM 3499 CA ASP A 544 172.875 150.137 168.808 1.00 43.84 C

ATOM 3500 C ASP A 544 172.724 149.179 167.634 1.00 43.84 C
ATOM 3501 O ASP A 544 172.751 149.631 166.484 1.00 43.84 O
ATOM 3502 CB ASP A 544 174.037 151.093 168.531 1.00 43.84 C
ATOM 3503 CG ASP A 544 173.781 152.486 169.050 1.00 43.84 C
ATOM 3504 OD1 ASP A 544 172.670 152.735 169.555 1.00 43.84 O
ATOM 3505 OD2 ASP A 544 174.690 153.334 168.953 1.00 43.84 O
ATOM 3506 N VAL A 545 172.566 147.882 167.878 1.00 38.87 N
ATOM 3507 CA VAL A 545 172.635 146.875 166.828 1.00 38.87 C
ATOM 3508 C VAL A 545 171.629 145.779 167.149 1.00 38.87 C
ATOM 3509 O VAL A 545 171.771 145.083 168.158 1.00 38.87 O
ATOM 3510 CB VAL A 545 174.044 146.287 166.694 1.00 38.87 C
ATOM 3511 CG1 VAL A 545 173.982 144.939 166.034 1.00 38.87 C
ATOM 3512 CG2 VAL A 545 174.924 147.223 165.901 1.00 38.87 C
ATOM 3513 N LEU A 546 170.623 145.617 166.295 1.00 39.13 N
ATOM 3514 CA LEU A 546 169.619 144.585 166.505 1.00 39.13 C
ATOM 3515 C LEU A 546 170.265 143.204 166.574 1.00 39.13 C
ATOM 3516 O LEU A 546 171.400 142.996 166.144 1.00 39.13 O
ATOM 3517 CB LEU A 546 168.579 144.618 165.390 1.00 39.13 C
ATOM 3518 CG LEU A 546 167.676 145.847 165.357 1.00 39.13 C
ATOM 3519 CD1 LEU A 546 167.327 146.212 163.936 1.00 39.13 C
ATOM 3520 CD2 LEU A 546 166.421 145.591 166.152 1.00 39.13 C
ATOM 3521 N GLY A 547 169.523 142.254 167.135 1.00 39.34 N
ATOM 3522 CA GLY A 547 169.966 140.875 167.207 1.00 39.34 C
ATOM 3523 C GLY A 547 168.881 139.906 166.787 1.00 39.34 C
ATOM 3524 O GLY A 547 167.812 139.873 167.397 1.00 39.34 O
ATOM 3525 N LEU A 548 169.139 139.111 165.754 1.00 42.21 N
ATOM 3526 CA LEU A 548 168.113 138.258 165.174 1.00 42.21 C
ATOM 3527 C LEU A 548 168.019 136.925 165.912 1.00 42.21 C
ATOM 3528 O LEU A 548 168.961 136.477 166.568 1.00 42.21 O
ATOM 3529 CB LEU A 548 168.401 138.009 163.694 1.00 42.21 C
ATOM 3530 CG LEU A 548 167.822 138.995 162.682 1.00 42.21 C
ATOM 3531 CD1 LEU A 548 166.324 138.851 162.604 1.00 42.21 C
ATOM 3532 CD2 LEU A 548 168.188 140.402 163.064 1.00 42.21 C
ATOM 3533 N ALA A 549 166.865 136.290 165.789 1.00 47.11 N

ATOM 3534 CA ALA A 549 166.606 134.980 166.380 1.00 47.11 C
ATOM 3535 C ALA A 549 165.303 134.466 165.784 1.00 47.11 C
ATOM 3536 O ALA A 549 164.744 135.076 164.865 1.00 47.11 O
ATOM 3537 CB ALA A 549 166.556 135.054 167.904 1.00 47.11 C
ATOM 3538 N SER A 550 164.812 133.347 166.304 1.00 51.12 N
ATOM 3539 CA SER A 550 163.586 132.733 165.821 1.00 51.12 C
ATOM 3540 C SER A 550 162.611 132.525 166.975 1.00 51.12 C
ATOM 3541 O SER A 550 162.988 132.509 168.149 1.00 51.12 O
ATOM 3542 CB SER A 550 163.885 131.403 165.122 1.00 51.12 C
ATOM 3543 OG SER A 550 162.812 131.014 164.289 1.00 51.12 O
ATOM 3544 N CYS A 551 161.336 132.370 166.630 1.00 50.83 N
ATOM 3545 CA CYS A 551 160.292 132.161 167.621 1.00 50.83 C
ATOM 3546 C CYS A 551 160.292 130.709 168.086 1.00 50.83 C
ATOM 3547 O CYS A 551 160.475 129.789 167.285 1.00 50.83 O
ATOM 3548 CB CYS A 551 158.921 132.528 167.047 1.00 50.83 C
ATOM 3549 SG CYS A 551 158.693 134.281 166.593 1.00 50.83 S
ATOM 3550 N VAL A 552 160.092 130.508 169.387 1.00 46.75 N
ATOM 3551 CA VAL A 552 160.026 129.159 169.936 1.00 46.75 C
ATOM 3552 C VAL A 552 158.599 128.628 169.828 1.00 46.75 C
ATOM 3553 O VAL A 552 157.637 129.384 169.698 1.00 46.75 O
ATOM 3554 CB VAL A 552 160.525 129.134 171.390 1.00 46.75 C
ATOM 3555 CG1 VAL A 552 160.622 127.718 171.881 1.00 46.75 C
ATOM 3556 CG2 VAL A 552 161.872 129.813 171.494 1.00 46.75 C
ATOM 3557 N THR A 553 158.459 127.304 169.879 1.00 44.89 N
ATOM 3558 CA THR A 553 157.164 126.650 169.718 1.00 44.89 C
ATOM 3559 C THR A 553 156.850 125.833 170.963 1.00 44.89 C
ATOM 3560 O THR A 553 157.572 124.885 171.286 1.00 44.89 O
ATOM 3561 CB THR A 553 157.141 125.759 168.477 1.00 44.89 C
ATOM 3562 OG1 THR A 553 157.394 126.552 167.313 1.00 44.89 O
ATOM 3563 CG2 THR A 553 155.789 125.103 168.334 1.00 44.89 C
ATOM 3564 N ILE A 554 155.774 126.206 171.653 1.00 47.57 N
ATOM 3565 CA ILE A 554 155.333 125.575 172.893 1.00 47.57 C
ATOM 3566 C ILE A 554 154.506 124.326 172.616 1.00 47.57 C
ATOM 3567 O ILE A 554 154.171 124.027 171.466 1.00 47.57 O

ATOM 3568 CB ILE A 554 154.550 126.567 173.766 1.00 47.57 C
ATOM 3569 CG1 ILE A 554 153.238 126.950 173.091 1.00 47.57 C
ATOM 3570 CG2 ILE A 554 155.384 127.797 174.031 1.00 47.57 C
ATOM 3571 CD1 ILE A 554 152.321 127.753 173.976 1.00 47.57 C
ATOM 3572 N ASN A 555 154.190 123.588 173.684 1.00 52.11 N
ATOM 3573 CA ASN A 555 153.541 122.280 173.605 1.00 52.11 C
ATOM 3574 C ASN A 555 152.514 122.139 172.487 1.00 52.11 C
ATOM 3575 O ASN A 555 152.514 121.142 171.758 1.00 52.11 O
ATOM 3576 CB ASN A 555 152.878 121.978 174.946 1.00 52.11 C
ATOM 3577 CG ASN A 555 152.731 120.505 175.191 1.00 52.11 C
ATOM 3578 OD1 ASN A 555 152.930 119.697 174.289 1.00 52.11 O
ATOM 3579 ND2 ASN A 555 152.373 120.141 176.414 1.00 52.11 N
ATOM 3580 N GLN A 556 151.621 123.113 172.339 1.00 50.36 N
ATOM 3581 CA GLN A 556 150.544 123.156 171.356 1.00 50.36 C
ATOM 3582 C GLN A 556 149.334 122.310 171.744 1.00 50.36 C
ATOM 3583 O GLN A 556 148.322 122.375 171.051 1.00 50.36 O
ATOM 3584 CB GLN A 556 150.995 122.709 169.953 1.00 50.36 C
ATOM 3585 CG GLN A 556 151.895 123.682 169.250 1.00 50.36 C
ATOM 3586 CD GLN A 556 151.187 124.963 168.922 1.00 50.36 C
ATOM 3587 OE1 GLN A 556 149.963 125.041 168.987 1.00 50.36 O
ATOM 3588 NE2 GLN A 556 151.952 125.984 168.573 1.00 50.36 N
ATOM 3589 N THR A 557 149.384 121.532 172.826 1.00 54.58 N
ATOM 3590 CA THR A 557 148.218 120.740 173.204 1.00 54.58 C
ATOM 3591 C THR A 557 147.962 120.774 174.705 1.00 54.58 C
ATOM 3592 O THR A 557 147.283 119.884 175.229 1.00 54.58 O
ATOM 3593 CB THR A 557 148.360 119.286 172.753 1.00 54.58 C
ATOM 3594 OG1 THR A 557 147.172 118.564 173.096 1.00 54.58 O
ATOM 3595 CG2 THR A 557 149.539 118.636 173.436 1.00 54.58 C
ATOM 3596 N SER A 558 148.493 121.771 175.408 1.00 51.67 N
ATOM 3597 CA SER A 558 148.185 121.957 176.817 1.00 51.67 C
ATOM 3598 C SER A 558 147.827 123.402 177.126 1.00 51.67 C
ATOM 3599 O SER A 558 147.599 123.731 178.295 1.00 51.67 O
ATOM 3600 CB SER A 558 149.356 121.526 177.694 1.00 51.67 C
ATOM 3601 OG SER A 558 150.247 122.607 177.894 1.00 51.67 O

ATOM 3602 N VAL A 559 147.776 124.268 176.125 1.00 44.69 N
ATOM 3603 CA VAL A 559 147.406 125.661 176.329 1.00 44.69 C
ATOM 3604 C VAL A 559 145.958 125.731 176.786 1.00 44.69 C
ATOM 3605 O VAL A 559 145.125 124.907 176.395 1.00 44.69 O
ATOM 3606 CB VAL A 559 147.628 126.466 175.039 1.00 44.69 C
ATOM 3607 CG1 VAL A 559 147.253 127.910 175.253 1.00 44.69 C
ATOM 3608 CG2 VAL A 559 149.067 126.356 174.602 1.00 44.69 C
ATOM 3609 N LYS A 560 145.654 126.716 177.626 1.00 41.89 N
ATOM 3610 CA LYS A 560 144.300 126.927 178.123 1.00 41.89 C
ATOM 3611 C LYS A 560 144.123 128.407 178.409 1.00 41.89 C
ATOM 3612 O LYS A 560 144.822 128.960 179.261 1.00 41.89 O
ATOM 3613 CB LYS A 560 144.034 126.102 179.383 1.00 41.89 C
ATOM 3614 CG LYS A 560 144.290 124.618 179.214 1.00 41.89 C
ATOM 3615 CD LYS A 560 143.721 123.824 180.376 1.00 41.89 C
ATOM 3616 CE LYS A 560 144.432 124.160 181.672 1.00 41.89 C
ATOM 3617 NZ LYS A 560 145.791 123.560 181.722 1.00 41.89 N
ATOM 3618 N VAL A 561 143.197 129.042 177.700 1.00 37.96 N
ATOM 3619 CA VAL A 561 142.929 130.466 177.849 1.00 37.96 C
ATOM 3620 C VAL A 561 141.779 130.631 178.829 1.00 37.96 C
ATOM 3621 O VAL A 561 140.658 130.183 178.563 1.00 37.96 O
ATOM 3622 CB VAL A 561 142.600 131.119 176.499 1.00 37.96 C
ATOM 3623 CG1 VAL A 561 142.211 132.565 176.697 1.00 37.96 C
ATOM 3624 CG2 VAL A 561 143.783 131.016 175.565 1.00 37.96 C
ATOM 3625 N LEU A 562 142.051 131.273 179.961 1.00 38.79 N
ATOM 3626 CA LEU A 562 141.012 131.508 180.947 1.00 38.79 C
ATOM 3627 C LEU A 562 139.915 132.388 180.352 1.00 38.79 C
ATOM 3628 O LEU A 562 140.072 132.995 179.293 1.00 38.79 O
ATOM 3629 CB LEU A 562 141.602 132.150 182.200 1.00 38.79 C
ATOM 3630 CG LEU A 562 142.696 131.350 182.905 1.00 38.79 C
ATOM 3631 CD1 LEU A 562 142.863 131.830 184.329 1.00 38.79 C
ATOM 3632 CD2 LEU A 562 142.372 129.875 182.880 1.00 38.79 C
ATOM 3633 N ARG A 563 138.788 132.453 181.053 1.00 45.07 N
ATOM 3634 CA ARG A 563 137.608 133.164 180.574 1.00 45.07 C
ATOM 3635 C ARG A 563 137.058 134.079 181.656 1.00 45.07 C

ATOM 3636 O ARG A 563 135.856 134.125 181.920 1.00 45.07 O
ATOM 3637 CB ARG A 563 136.545 132.184 180.099 1.00 45.07 C
ATOM 3638 CG ARG A 563 135.976 131.316 181.195 1.00 45.07 C
ATOM 3639 CD ARG A 563 134.661 130.699 180.765 1.00 45.07 C
ATOM 3640 NE ARG A 563 134.851 129.659 179.761 1.00 45.07 N
ATOM 3641 CZ ARG A 563 133.881 129.185 178.986 1.00 45.07 C
ATOM 3642 NH1 ARG A 563 134.141 128.237 178.099 1.00 45.07 N
ATOM 3643 NH2 ARG A 563 132.651 129.663 179.096 1.00 45.07 N
ATOM 3644 N ASP A 564 137.948 134.823 182.305 1.00 50.47 N
ATOM 3645 CA ASP A 564 137.546 135.826 183.286 1.00 50.47 C
ATOM 3646 C ASP A 564 138.727 136.752 183.512 1.00 50.47 C
ATOM 3647 O ASP A 564 139.807 136.289 183.890 1.00 50.47 O
ATOM 3648 CB ASP A 564 137.106 135.175 184.591 1.00 50.47 C
ATOM 3649 CG ASP A 564 136.439 136.152 185.529 1.00 50.47 C
ATOM 3650 OD1 ASP A 564 136.445 137.362 185.231 1.00 50.47 O
ATOM 3651 OD2 ASP A 564 135.902 135.713 186.566 1.00 50.47 O
ATOM 3652 N MET A 565 138.532 138.046 183.283 1.00 48.38 N
ATOM 3653 CA MET A 565 139.602 139.032 183.366 1.00 48.38 C
ATOM 3654 C MET A 565 139.442 139.936 184.584 1.00 48.38 C
ATOM 3655 O MET A 565 139.728 141.132 184.532 1.00 48.38 O
ATOM 3656 CB MET A 565 139.666 139.861 182.089 1.00 48.38 C
ATOM 3657 CG MET A 565 139.843 139.035 180.833 1.00 48.38 C
ATOM 3658 SD MET A 565 140.684 139.929 179.518 1.00 48.38 S
ATOM 3659 CE MET A 565 139.646 141.373 179.373 1.00 48.38 C
ATOM 3660 N ASN A 566 138.984 139.371 185.694 1.00 52.74 N
ATOM 3661 CA ASN A 566 138.847 140.086 186.955 1.00 52.74 C
ATOM 3662 C ASN A 566 139.921 139.606 187.918 1.00 52.74 C
ATOM 3663 O ASN A 566 140.047 138.402 188.161 1.00 52.74 O
ATOM 3664 CB ASN A 566 137.464 139.863 187.568 1.00 52.74 C
ATOM 3665 CG ASN A 566 136.441 140.857 187.077 1.00 52.74 C
ATOM 3666 OD1 ASN A 566 136.656 142.064 187.131 1.00 52.74 O
ATOM 3667 ND2 ASN A 566 135.314 140.354 186.595 1.00 52.74 N
ATOM 3668 N VAL A 567 140.692 140.543 188.465 1.00 58.06 N
ATOM 3669 CA VAL A 567 141.701 140.184 189.454 1.00 58.06 C

ATOM 3670 C VAL A 567 140.990 139.742 190.725 1.00 58.06 C
ATOM 3671 O VAL A 567 140.255 140.520 191.343 1.00 58.06 O
ATOM 3672 CB VAL A 567 142.649 141.357 189.724 1.00 58.06 C
ATOM 3673 CG1 VAL A 567 143.865 140.885 190.491 1.00 58.06 C
ATOM 3674 CG2 VAL A 567 143.061 142.009 188.426 1.00 58.06 C
ATOM 3675 N LYS A 568 141.199 138.487 191.119 1.00 64.75 N
ATOM 3676 CA LYS A 568 140.481 137.938 192.261 1.00 64.75 C
ATOM 3677 C LYS A 568 140.981 138.479 193.591 1.00 64.75 C
ATOM 3678 O LYS A 568 140.245 138.426 194.582 1.00 64.75 O
ATOM 3679 CB LYS A 568 140.581 136.413 192.266 1.00 64.75 C
ATOM 3680 CG LYS A 568 139.671 135.729 191.264 1.00 64.75 C
ATOM 3681 CD LYS A 568 139.571 134.241 191.544 1.00 64.75 C
ATOM 3682 CE LYS A 568 138.699 133.547 190.515 1.00 64.75 C
ATOM 3683 NZ LYS A 568 139.308 133.598 189.158 1.00 64.75 N
ATOM 3684 N GLU A 569 142.204 139.001 193.637 1.00 70.01 N
ATOM 3685 CA GLU A 569 142.773 139.459 194.899 1.00 70.01 C
ATOM 3686 C GLU A 569 142.285 140.858 195.256 1.00 70.01 C
ATOM 3687 O GLU A 569 141.628 141.056 196.284 1.00 70.01 O
ATOM 3688 CB GLU A 569 144.300 139.425 194.817 1.00 70.01 C
ATOM 3689 CG GLU A 569 144.867 138.054 194.493 1.00 70.01 C
ATOM 3690 CD GLU A 569 146.072 138.123 193.576 1.00 70.01 C
ATOM 3691 OE1 GLU A 569 146.565 139.241 193.319 1.00 70.01 O
ATOM 3692 OE2 GLU A 569 146.529 137.059 193.112 1.00 70.01 O
ATOM 3693 N SER A 570 142.585 141.841 194.407 1.00 66.73 N
ATOM 3694 CA SER A 570 142.305 143.238 194.704 1.00 66.73 C
ATOM 3695 C SER A 570 141.097 143.708 193.909 1.00 66.73 C
ATOM 3696 O SER A 570 141.240 144.068 192.733 1.00 66.73 O
ATOM 3697 CB SER A 570 143.526 144.103 194.385 1.00 66.73 C
ATOM 3698 OG SER A 570 143.934 143.922 193.041 1.00 66.73 O
ATOM 3699 N PRO A 571 139.901 143.734 194.491 1.00 66.74 N
ATOM 3700 CA PRO A 571 138.736 144.222 193.745 1.00 66.74 C
ATOM 3701 C PRO A 571 138.950 145.648 193.267 1.00 66.74 C
ATOM 3702 O PRO A 571 139.503 146.487 193.981 1.00 66.74 O
ATOM 3703 CB PRO A 571 137.596 144.133 194.767 1.00 66.74 C

ATOM 3704 CG PRO A 571 138.268 144.074 196.094 1.00 66.74 C
ATOM 3705 CD PRO A 571 139.555 143.351 195.867 1.00 66.74 C
ATOM 3706 N GLY A 572 138.505 145.918 192.043 1.00 63.76 N
ATOM 3707 CA GLY A 572 138.668 147.208 191.410 1.00 63.76 C
ATOM 3708 C GLY A 572 139.597 147.201 190.218 1.00 63.76 C
ATOM 3709 O GLY A 572 139.478 148.078 189.354 1.00 63.76 O
ATOM 3710 N ARG A 573 140.513 146.242 190.143 1.00 60.93 N
ATOM 3711 CA ARG A 573 141.426 146.105 189.021 1.00 60.93 C
ATOM 3712 C ARG A 573 140.991 144.944 188.138 1.00 60.93 C
ATOM 3713 O ARG A 573 140.346 143.999 188.597 1.00 60.93 O
ATOM 3714 CB ARG A 573 142.862 145.885 189.499 1.00 60.93 C
ATOM 3715 CG ARG A 573 143.307 146.853 190.572 1.00 60.93 C
ATOM 3716 CD ARG A 573 143.578 148.225 189.989 1.00 60.93 C
ATOM 3717 NE ARG A 573 144.723 148.221 189.085 1.00 60.93 N
ATOM 3718 CZ ARG A 573 145.220 149.308 188.507 1.00 60.93 C
ATOM 3719 NH1 ARG A 573 144.671 150.492 188.735 1.00 60.93 N
ATOM 3720 NH2 ARG A 573 146.264 149.213 187.700 1.00 60.93 N
ATOM 3721 N CYS A 574 141.354 145.024 186.861 1.00 55.37 N
ATOM 3722 CA CYS A 574 140.949 144.038 185.873 1.00 55.37 C
ATOM 3723 C CYS A 574 142.048 143.898 184.833 1.00 55.37 C
ATOM 3724 O CYS A 574 142.649 144.892 184.424 1.00 55.37 O
ATOM 3725 CB CYS A 574 139.623 144.437 185.220 1.00 55.37 C
ATOM 3726 SG CYS A 574 138.219 144.463 186.376 1.00 55.37 S
ATOM 3727 N TYR A 575 142.313 142.662 184.415 1.00 47.65 N
ATOM 3728 CA TYR A 575 143.405 142.403 183.490 1.00 47.65 C
ATOM 3729 C TYR A 575 143.203 143.178 182.192 1.00 47.65 C
ATOM 3730 O TYR A 575 142.133 143.717 181.913 1.00 47.65 O
ATOM 3731 CB TYR A 575 143.516 140.910 183.190 1.00 47.65 C
ATOM 3732 CG TYR A 575 144.135 140.094 184.298 1.00 47.65 C
ATOM 3733 CD1 TYR A 575 145.428 140.334 184.724 1.00 47.65 C
ATOM 3734 CD2 TYR A 575 143.426 139.078 184.912 1.00 47.65 C
ATOM 3735 CE1 TYR A 575 145.993 139.590 185.735 1.00 47.65 C
ATOM 3736 CE2 TYR A 575 143.981 138.330 185.921 1.00 47.65 C
ATOM 3737 CZ TYR A 575 145.264 138.589 186.329 1.00 47.65 C

ATOM 3738 OH TYR A 575 145.819 137.840 187.338 1.00 47.65 O
ATOM 3739 N SER A 576 144.264 143.228 181.388 1.00 43.65 N
ATOM 3740 CA SER A 576 144.237 143.920 180.110 1.00 43.65 C
ATOM 3741 C SER A 576 144.291 142.983 178.915 1.00 43.65 C
ATOM 3742 O SER A 576 143.925 143.396 177.812 1.00 43.65 O
ATOM 3743 CB SER A 576 145.407 144.907 180.017 1.00 43.65 C
ATOM 3744 OG SER A 576 145.185 145.870 179.006 1.00 43.65 O
ATOM 3745 N ARG A 577 144.738 141.748 179.107 1.00 38.69 N
ATOM 3746 CA ARG A 577 144.804 140.720 178.084 1.00 38.69 C
ATOM 3747 C ARG A 577 144.463 139.391 178.735 1.00 38.69 C
ATOM 3748 O ARG A 577 144.769 139.185 179.914 1.00 38.69 O
ATOM 3749 CB ARG A 577 146.199 140.640 177.447 1.00 38.69 C
ATOM 3750 CG ARG A 577 146.632 141.881 176.697 1.00 38.69 C
ATOM 3751 CD ARG A 577 145.962 141.936 175.346 1.00 38.69 C
ATOM 3752 NE ARG A 577 146.773 142.608 174.341 1.00 38.69 N
ATOM 3753 CZ ARG A 577 146.535 142.547 173.036 1.00 38.69 C
ATOM 3754 NH1 ARG A 577 145.511 141.841 172.581 1.00 38.69 N
ATOM 3755 NH2 ARG A 577 147.319 143.189 172.186 1.00 38.69 N
ATOM 3756 N PRO A 578 143.834 138.478 178.008 1.00 35.43 N
ATOM 3757 CA PRO A 578 143.530 137.166 178.592 1.00 35.43 C
ATOM 3758 C PRO A 578 144.767 136.536 179.206 1.00 35.43 C
ATOM 3759 O PRO A 578 145.887 136.903 178.845 1.00 35.43 O
ATOM 3760 CB PRO A 578 143.018 136.358 177.396 1.00 35.43 C
ATOM 3761 CG PRO A 578 142.541 137.372 176.432 1.00 35.43 C
ATOM 3762 CD PRO A 578 143.420 138.567 176.601 1.00 35.43 C
ATOM 3763 N VAL A 579 144.594 135.594 180.126 1.00 36.68 N
ATOM 3764 CA VAL A 579 145.709 134.990 180.845 1.00 36.68 C
ATOM 3765 C VAL A 579 145.781 133.518 180.463 1.00 36.68 C
ATOM 3766 O VAL A 579 144.797 132.785 180.609 1.00 36.68 O
ATOM 3767 CB VAL A 579 145.565 135.162 182.363 1.00 36.68 C
ATOM 3768 CG1 VAL A 579 144.239 134.613 182.821 1.00 36.68 C
ATOM 3769 CG2 VAL A 579 146.696 134.473 183.077 1.00 36.68 C
ATOM 3770 N VAL A 580 146.945 133.090 179.977 1.00 39.18 N
ATOM 3771 CA VAL A 580 147.153 131.740 179.468 1.00 39.18 C

ATOM 3772 C VAL A 580 148.062 130.981 180.422 1.00 39.18 C
ATOM 3773 O VAL A 580 148.873 131.575 181.139 1.00 39.18 O
ATOM 3774 CB VAL A 580 147.762 131.767 178.052 1.00 39.18 C
ATOM 3775 CG1 VAL A 580 147.814 130.377 177.477 1.00 39.18 C
ATOM 3776 CG2 VAL A 580 146.966 132.678 177.156 1.00 39.18 C
ATOM 3777 N ILE A 581 147.931 129.656 180.425 1.00 42.91 N
ATOM 3778 CA ILE A 581 148.797 128.778 181.212 1.00 42.91 C
ATOM 3779 C ILE A 581 149.342 127.715 180.260 1.00 42.91 C
ATOM 3780 O ILE A 581 148.745 126.651 180.077 1.00 42.91 O
ATOM 3781 CB ILE A 581 148.075 128.150 182.408 1.00 42.91 C
ATOM 3782 CG1 ILE A 581 146.996 127.174 181.956 1.00 42.91 C
ATOM 3783 CG2 ILE A 581 147.443 129.225 183.259 1.00 42.91 C
ATOM 3784 CD1 ILE A 581 146.437 126.347 183.080 1.00 42.91 C
ATOM 3785 N PHE A 582 150.490 127.995 179.654 1.00 46.91 N
ATOM 3786 CA PHE A 582 151.084 127.106 178.669 1.00 46.91 C
ATOM 3787 C PHE A 582 152.087 126.169 179.337 1.00 46.91 C
ATOM 3788 O PHE A 582 152.128 126.031 180.561 1.00 46.91 O
ATOM 3789 CB PHE A 582 151.717 127.913 177.541 1.00 46.91 C
ATOM 3790 CG PHE A 582 152.817 128.818 177.986 1.00 46.91 C
ATOM 3791 CD1 PHE A 582 154.118 128.368 178.039 1.00 46.91 C
ATOM 3792 CD2 PHE A 582 152.553 130.122 178.338 1.00 46.91 C
ATOM 3793 CE1 PHE A 582 155.132 129.202 178.442 1.00 46.91 C
ATOM 3794 CE2 PHE A 582 153.564 130.959 178.740 1.00 46.91 C
ATOM 3795 CZ PHE A 582 154.855 130.499 178.793 1.00 46.91 C
ATOM 3796 N ASN A 583 152.893 125.492 178.524 1.00 50.90 N
ATOM 3797 CA ASN A 583 153.837 124.496 179.008 1.00 50.90 C
ATOM 3798 C ASN A 583 154.893 124.243 177.939 1.00 50.90 C
ATOM 3799 O ASN A 583 154.549 123.867 176.816 1.00 50.90 O
ATOM 3800 CB ASN A 583 153.092 123.208 179.354 1.00 50.90 C
ATOM 3801 CG ASN A 583 153.733 122.452 180.480 1.00 50.90 C
ATOM 3802 OD1 ASN A 583 154.867 122.730 180.857 1.00 50.90 O
ATOM 3803 ND2 ASN A 583 153.015 121.481 181.026 1.00 50.90 N
ATOM 3804 N PHE A 584 156.173 124.438 178.256 1.00 52.11 N
ATOM 3805 CA PHE A 584 157.200 124.345 177.219 1.00 52.11 C

ATOM 3806 C PHE A 584 157.284 122.966 176.585 1.00 52.11 C
ATOM 3807 O PHE A 584 156.556 122.046 176.967 1.00 52.11 O
ATOM 3808 CB PHE A 584 158.577 124.729 177.761 1.00 52.11 C
ATOM 3809 CG PHE A 584 158.792 126.206 177.868 1.00 52.11 C
ATOM 3810 CD1 PHE A 584 159.156 126.939 176.753 1.00 52.11 C
ATOM 3811 CD2 PHE A 584 158.625 126.858 179.064 1.00 52.11 C
ATOM 3812 CE1 PHE A 584 159.352 128.294 176.838 1.00 52.11 C
ATOM 3813 CE2 PHE A 584 158.827 128.219 179.150 1.00 52.11 C
ATOM 3814 CZ PHE A 584 159.186 128.937 178.031 1.00 52.11 C
ATOM 3815 N ALA A 585 158.178 122.829 175.610 1.00 55.03 N
ATOM 3816 CA ALA A 585 158.301 121.617 174.807 1.00 55.03 C
ATOM 3817 C ALA A 585 158.882 120.509 175.666 1.00 55.03 C
ATOM 3818 O ALA A 585 160.071 120.508 175.983 1.00 55.03 O
ATOM 3819 CB ALA A 585 159.176 121.876 173.587 1.00 55.03 C
ATOM 3820 N ASN A 586 158.044 119.551 176.046 1.00 64.53 N
ATOM 3821 CA ASN A 586 158.477 118.411 176.845 1.00 64.53 C
ATOM 3822 C ASN A 586 159.082 118.868 178.174 1.00 64.53 C
ATOM 3823 O ASN A 586 160.268 118.684 178.452 1.00 64.53 O
ATOM 3824 CB ASN A 586 159.464 117.543 176.066 1.00 64.53 C
ATOM 3825 CG ASN A 586 159.912 116.337 176.854 1.00 64.53 C
ATOM 3826 OD1 ASN A 586 161.053 116.264 177.303 1.00 64.53 O
ATOM 3827 ND2 ASN A 586 159.010 115.381 177.034 1.00 64.53 N
ATOM 3828 N SER A 587 158.235 119.479 178.996 1.00 65.21 N
ATOM 3829 CA SER A 587 158.592 119.857 180.352 1.00 65.21 C
ATOM 3830 C SER A 587 157.438 119.510 181.282 1.00 65.21 C
ATOM 3831 O SER A 587 156.346 119.136 180.847 1.00 65.21 O
ATOM 3832 CB SER A 587 158.932 121.348 180.446 1.00 65.21 C
ATOM 3833 OG SER A 587 160.170 121.625 179.820 1.00 65.21 O
ATOM 3834 N SER A 588 157.690 119.648 182.577 1.00 68.97 N
ATOM 3835 CA SER A 588 156.680 119.475 183.614 1.00 68.97 C
ATOM 3836 C SER A 588 156.690 120.709 184.502 1.00 68.97 C
ATOM 3837 O SER A 588 156.731 120.630 185.729 1.00 68.97 O
ATOM 3838 CB SER A 588 156.930 118.205 184.422 1.00 68.97 C
ATOM 3839 OG SER A 588 156.318 118.288 185.697 1.00 68.97 O

ATOM 3840 N CYS A 589 156.660 121.878 183.869 1.00 67.53 N
ATOM 3841 CA CYS A 589 157.100 123.105 184.519 1.00 67.53 C
ATOM 3842 C CYS A 589 156.075 124.172 184.160 1.00 67.53 C
ATOM 3843 O CYS A 589 156.244 124.881 183.164 1.00 67.53 O
ATOM 3844 CB CYS A 589 158.502 123.454 184.012 1.00 67.53 C
ATOM 3845 SG CYS A 589 159.613 124.492 184.992 1.00 67.53 S
ATOM 3846 N VAL A 590 155.022 124.293 184.972 1.00 58.07 N
ATOM 3847 CA VAL A 590 153.873 125.105 184.585 1.00 58.07 C
ATOM 3848 C VAL A 590 154.216 126.585 184.671 1.00 58.07 C
ATOM 3849 O VAL A 590 155.025 127.015 185.503 1.00 58.07 O
ATOM 3850 CB VAL A 590 152.652 124.775 185.458 1.00 58.07 C
ATOM 3851 CG1 VAL A 590 151.480 125.636 185.051 1.00 58.07 C
ATOM 3852 CG2 VAL A 590 152.302 123.314 185.333 1.00 58.07 C
ATOM 3853 N GLN A 591 153.578 127.378 183.814 1.00 53.36 N
ATOM 3854 CA GLN A 591 153.870 128.799 183.724 1.00 53.36 C
ATOM 3855 C GLN A 591 152.611 129.562 183.341 1.00 53.36 C
ATOM 3856 O GLN A 591 151.579 128.977 183.010 1.00 53.36 O
ATOM 3857 CB GLN A 591 154.991 129.066 182.720 1.00 53.36 C
ATOM 3858 CG GLN A 591 156.317 128.469 183.127 1.00 53.36 C
ATOM 3859 CD GLN A 591 157.418 128.839 182.173 1.00 53.36 C
ATOM 3860 OE1 GLN A 591 157.179 129.513 181.177 1.00 53.36 O
ATOM 3861 NE2 GLN A 591 158.634 128.409 182.471 1.00 53.36 N
ATOM 3862 N TYR A 592 152.711 130.889 183.387 1.00 47.90 N
ATOM 3863 CA TYR A 592 151.597 131.784 183.114 1.00 47.90 C
ATOM 3864 C TYR A 592 152.036 132.870 182.145 1.00 47.90 C
ATOM 3865 O TYR A 592 153.170 133.348 182.211 1.00 47.90 O
ATOM 3866 CB TYR A 592 151.073 132.425 184.402 1.00 47.90 C
ATOM 3867 CG TYR A 592 150.468 131.442 185.373 1.00 47.90 C
ATOM 3868 CD1 TYR A 592 151.269 130.689 186.216 1.00 47.90 C
ATOM 3869 CD2 TYR A 592 149.096 131.265 185.447 1.00 47.90 C
ATOM 3870 CE1 TYR A 592 150.721 129.787 187.104 1.00 47.90 C
ATOM 3871 CE2 TYR A 592 148.540 130.366 186.331 1.00 47.90 C
ATOM 3872 CZ TYR A 592 149.357 129.629 187.157 1.00 47.90 C
ATOM 3873 OH TYR A 592 148.808 128.731 188.041 1.00 47.90 O

ATOM 3874 N GLY A 593 151.135 133.257 181.247 1.00 40.27 N
ATOM 3875 CA GLY A 593 151.425 134.305 180.289 1.00 40.27 C
ATOM 3876 C GLY A 593 150.188 135.097 179.933 1.00 40.27 C
ATOM 3877 O GLY A 593 149.169 134.982 180.617 1.00 40.27 O
ATOM 3878 N GLN A 594 150.249 135.898 178.873 1.00 39.10 N
ATOM 3879 CA GLN A 594 149.103 136.690 178.448 1.00 39.10 C
ATOM 3880 C GLN A 594 149.022 136.693 176.931 1.00 39.10 C
ATOM 3881 O GLN A 594 150.021 136.944 176.255 1.00 39.10 O
ATOM 3882 CB GLN A 594 149.196 138.123 178.976 1.00 39.10 C
ATOM 3883 CG GLN A 594 148.784 138.261 180.423 1.00 39.10 C
ATOM 3884 CD GLN A 594 148.698 139.697 180.861 1.00 39.10 C
ATOM 3885 OE1 GLN A 594 149.588 140.492 180.584 1.00 39.10 O
ATOM 3886 NE2 GLN A 594 147.620 140.042 181.546 1.00 39.10 N
ATOM 3887 N LEU A 595 147.830 136.433 176.405 1.00 39.06 N
ATOM 3888 CA LEU A 595 147.651 136.252 174.970 1.00 39.06 C
ATOM 3889 C LEU A 595 147.995 137.521 174.206 1.00 39.06 C
ATOM 3890 O LEU A 595 147.391 138.573 174.426 1.00 39.06 O
ATOM 3891 CB LEU A 595 146.212 135.839 174.676 1.00 39.06 C
ATOM 3892 CG LEU A 595 145.960 135.222 173.306 1.00 39.06 C
ATOM 3893 CD1 LEU A 595 146.362 133.764 173.311 1.00 39.06 C
ATOM 3894 CD2 LEU A 595 144.506 135.377 172.929 1.00 39.06 C
ATOM 3895 N GLY A 596 148.953 137.413 173.291 1.00 44.76 N
ATOM 3896 CA GLY A 596 149.317 138.526 172.439 1.00 44.76 C
ATOM 3897 C GLY A 596 148.402 138.652 171.242 1.00 44.76 C
ATOM 3898 O GLY A 596 147.188 138.474 171.366 1.00 44.76 O
ATOM 3899 N GLU A 597 148.966 138.955 170.078 1.00 53.40 N
ATOM 3900 CA GLU A 597 148.208 139.082 168.841 1.00 53.40 C
ATOM 3901 C GLU A 597 148.662 138.023 167.849 1.00 53.40 C
ATOM 3902 O GLU A 597 149.861 137.875 167.599 1.00 53.40 O
ATOM 3903 CB GLU A 597 148.377 140.474 168.234 1.00 53.40 C
ATOM 3904 CG GLU A 597 147.751 140.618 166.862 1.00 53.40 C
ATOM 3905 CD GLU A 597 147.685 142.057 166.398 1.00 53.40 C
ATOM 3906 OE1 GLU A 597 148.050 142.956 167.184 1.00 53.40 O
ATOM 3907 OE2 GLU A 597 147.263 142.290 165.247 1.00 53.40 O

ATOM 3908 N ASP A 598 147.701 137.302 167.273 1.00 53.30 N
ATOM 3909 CA ASP A 598 147.984 136.233 166.316 1.00 53.30 C
ATOM 3910 C ASP A 598 148.661 135.042 166.994 1.00 53.30 C
ATOM 3911 O ASP A 598 149.639 134.490 166.494 1.00 53.30 O
ATOM 3912 CB ASP A 598 148.829 136.749 165.150 1.00 53.30 C
ATOM 3913 CG ASP A 598 147.986 137.204 163.979 1.00 53.30 C
ATOM 3914 OD1 ASP A 598 146.931 136.586 163.731 1.00 53.30 O
ATOM 3915 OD2 ASP A 598 148.379 138.179 163.305 1.00 53.30 O
ATOM 3916 N ASN A 599 148.126 134.649 168.147 1.00 48.24 N
ATOM 3917 CA ASN A 599 148.497 133.414 168.825 1.00 48.24 C
ATOM 3918 C ASN A 599 149.895 133.440 169.425 1.00 48.24 C
ATOM 3919 O ASN A 599 150.405 132.395 169.831 1.00 48.24 O
ATOM 3920 CB ASN A 599 148.376 132.212 167.886 1.00 48.24 C
ATOM 3921 CG ASN A 599 147.075 131.474 168.055 1.00 48.24 C
ATOM 3922 OD1 ASN A 599 146.523 131.413 169.150 1.00 48.24 O
ATOM 3923 ND2 ASN A 599 146.581 130.894 166.972 1.00 48.24 N
ATOM 3924 N GLU A 600 150.545 134.596 169.496 1.00 48.19 N
ATOM 3925 CA GLU A 600 151.846 134.678 170.143 1.00 48.19 C
ATOM 3926 C GLU A 600 151.649 134.974 171.620 1.00 48.19 C
ATOM 3927 O GLU A 600 150.855 135.845 171.984 1.00 48.19 O
ATOM 3928 CB GLU A 600 152.726 135.749 169.505 1.00 48.19 C
ATOM 3929 CG GLU A 600 152.482 137.142 170.024 1.00 48.19 C
ATOM 3930 CD GLU A 600 153.665 138.051 169.787 1.00 48.19 C
ATOM 3931 OE1 GLU A 600 154.708 137.550 169.322 1.00 48.19 O
ATOM 3932 OE2 GLU A 600 153.554 139.263 170.067 1.00 48.19 O
ATOM 3933 N ILE A 601 152.371 134.251 172.464 1.00 43.13 N
ATOM 3934 CA ILE A 601 152.207 134.328 173.908 1.00 43.13 C
ATOM 3935 C ILE A 601 153.224 135.308 174.469 1.00 43.13 C
ATOM 3936 O ILE A 601 154.420 135.216 174.170 1.00 43.13 O
ATOM 3937 CB ILE A 601 152.361 132.944 174.554 1.00 43.13 C
ATOM 3938 CG1 ILE A 601 151.075 132.143 174.377 1.00 43.13 C
ATOM 3939 CG2 ILE A 601 152.705 133.082 176.012 1.00 43.13 C
ATOM 3940 CD1 ILE A 601 151.183 130.721 174.832 1.00 43.13 C
ATOM 3941 N LEU A 602 152.748 136.254 175.271 1.00 42.28 N

ATOM 3942 CA LEU A 602 153.616 137.186 175.971 1.00 42.28 C
ATOM 3943 C LEU A 602 153.955 136.627 177.343 1.00 42.28 C
ATOM 3944 O LEU A 602 153.082 136.121 178.051 1.00 42.28 O
ATOM 3945 CB LEU A 602 152.943 138.550 176.119 1.00 42.28 C
ATOM 3946 CG LEU A 602 152.437 139.240 174.855 1.00 42.28 C
ATOM 3947 CD1 LEU A 602 151.486 140.357 175.212 1.00 42.28 C
ATOM 3948 CD2 LEU A 602 153.595 139.777 174.051 1.00 42.28 C
ATOM 3949 N LEU A 603 155.227 136.713 177.713 1.00 47.57 N
ATOM 3950 CA LEU A 603 155.638 136.254 179.028 1.00 47.57 C
ATOM 3951 C LEU A 603 155.117 137.198 180.108 1.00 47.57 C
ATOM 3952 O LEU A 603 154.779 138.357 179.853 1.00 47.57 O
ATOM 3953 CB LEU A 603 157.160 136.148 179.107 1.00 47.57 C
ATOM 3954 CG LEU A 603 157.798 134.930 178.441 1.00 47.57 C
ATOM 3955 CD1 LEU A 603 159.295 135.119 178.316 1.00 47.57 C
ATOM 3956 CD2 LEU A 603 157.488 133.669 179.222 1.00 47.57 C
ATOM 3957 N GLY A 604 155.051 136.685 181.331 1.00 48.70 N
ATOM 3958 CA GLY A 604 154.614 137.470 182.464 1.00 48.70 C
ATOM 3959 C GLY A 604 153.108 137.467 182.644 1.00 48.70 C
ATOM 3960 O GLY A 604 152.342 136.975 181.815 1.00 48.70 O
ATOM 3961 N ASN A 605 152.682 138.034 183.773 1.00 50.73 N
ATOM 3962 CA ASN A 605 151.282 138.024 184.175 1.00 50.73 C
ATOM 3963 C ASN A 605 150.878 139.342 184.829 1.00 50.73 C
ATOM 3964 O ASN A 605 150.039 139.355 185.735 1.00 50.73 O
ATOM 3965 CB ASN A 605 151.016 136.859 185.124 1.00 50.73 C
ATOM 3966 CG ASN A 605 149.555 136.651 185.393 1.00 50.73 C
ATOM 3967 OD1 ASN A 605 148.707 137.169 184.675 1.00 50.73 O
ATOM 3968 ND2 ASN A 605 149.247 135.889 186.433 1.00 50.73 N
ATOM 3969 N HIS A 606 151.457 140.460 184.387 1.00 51.59 N
ATOM 3970 CA HIS A 606 151.512 141.670 185.198 1.00 51.59 C
ATOM 3971 C HIS A 606 150.993 142.903 184.467 1.00 51.59 C
ATOM 3972 O HIS A 606 151.472 144.011 184.712 1.00 51.59 O
ATOM 3973 CB HIS A 606 152.944 141.924 185.654 1.00 51.59 C
ATOM 3974 CG HIS A 606 153.880 142.214 184.524 1.00 51.59 C
ATOM 3975 ND1 HIS A 606 154.568 141.225 183.858 1.00 51.59 N

ATOM 3976 CD2 HIS A 606 154.224 143.379 183.928 1.00 51.59 C
ATOM 3977 CE1 HIS A 606 155.305 141.769 182.907 1.00 51.59 C
ATOM 3978 NE2 HIS A 606 155.114 143.075 182.928 1.00 51.59 N
ATOM 3979 N ARG A 607 150.023 142.748 183.575 1.00 45.22 N
ATOM 3980 CA ARG A 607 149.471 143.879 182.831 1.00 45.22 C
ATOM 3981 C ARG A 607 148.012 144.047 183.240 1.00 45.22 C
ATOM 3982 O ARG A 607 147.137 143.334 182.743 1.00 45.22 O
ATOM 3983 CB ARG A 607 149.615 143.669 181.329 1.00 45.22 C
ATOM 3984 CG ARG A 607 151.029 143.340 180.892 1.00 45.22 C
ATOM 3985 CD ARG A 607 151.062 142.720 179.510 1.00 45.22 C
ATOM 3986 NE ARG A 607 152.426 142.523 179.036 1.00 45.22 N
ATOM 3987 CZ ARG A 607 153.143 141.429 179.261 1.00 45.22 C
ATOM 3988 NH1 ARG A 607 152.625 140.428 179.953 1.00 45.22 N
ATOM 3989 NH2 ARG A 607 154.377 141.335 178.795 1.00 45.22 N
ATOM 3990 N THR A 608 147.752 144.987 184.139 1.00 51.85 N
ATOM 3991 CA THR A 608 146.426 145.213 184.696 1.00 51.85 C
ATOM 3992 C THR A 608 145.916 146.593 184.298 1.00 51.85 C
ATOM 3993 O THR A 608 146.586 147.353 183.600 1.00 51.85 O
ATOM 3994 CB THR A 608 146.440 145.059 186.218 1.00 51.85 C
ATOM 3995 OG1 THR A 608 147.339 146.017 186.787 1.00 51.85 O
ATOM 3996 CG2 THR A 608 146.881 143.664 186.611 1.00 51.85 C
ATOM 3997 N GLU A 609 144.707 146.906 184.753 1.00 56.83 N
ATOM 3998 CA GLU A 609 144.075 148.185 184.463 1.00 56.83 C
ATOM 3999 C GLU A 609 142.877 148.351 185.389 1.00 56.83 C
ATOM 4000 O GLU A 609 142.362 147.381 185.948 1.00 56.83 O
ATOM 4001 CB GLU A 609 143.663 148.278 182.994 1.00 56.83 C
ATOM 4002 CG GLU A 609 142.263 147.776 182.715 1.00 56.83 C
ATOM 4003 CD GLU A 609 141.873 147.923 181.261 1.00 56.83 C
ATOM 4004 OE1 GLU A 609 142.766 148.188 180.432 1.00 56.83 O
ATOM 4005 OE2 GLU A 609 140.674 147.775 180.947 1.00 56.83 O
ATOM 4006 N GLU A 610 142.431 149.597 185.535 1.00 59.69 N
ATOM 4007 CA GLU A 610 141.401 149.952 186.514 1.00 59.69 C
ATOM 4008 C GLU A 610 140.023 149.917 185.855 1.00 59.69 C
ATOM 4009 O GLU A 610 139.395 150.939 185.586 1.00 59.69 O

ATOM 4010 CB GLU A 610 141.705 151.320 187.115 1.00 59.69 C
ATOM 4011 CG GLU A 610 140.594 151.902 187.960 1.00 59.69 C
ATOM 4012 CD GLU A 610 140.636 153.415 188.000 1.00 59.69 C
ATOM 4013 OE1 GLU A 610 140.723 154.037 186.922 1.00 59.69 O
ATOM 4014 OE2 GLU A 610 140.584 153.985 189.110 1.00 59.69 O
ATOM 4015 N CYS A 611 139.551 148.695 185.625 1.00 59.25 N
ATOM 4016 CA CYS A 611 138.440 148.462 184.711 1.00 59.25 C
ATOM 4017 C CYS A 611 137.270 149.402 184.965 1.00 59.25 C
ATOM 4018 O CYS A 611 136.918 149.697 186.108 1.00 59.25 O
ATOM 4019 CB CYS A 611 137.979 147.008 184.803 1.00 59.25 C
ATOM 4020 SG CYS A 611 137.611 146.403 186.450 1.00 59.25 S
ATOM 4021 N GLN A 612 136.666 149.858 183.867 1.00 51.88 N
ATOM 4022 CA GLN A 612 135.553 150.800 183.881 1.00 51.88 C
ATOM 4023 C GLN A 612 134.476 150.285 182.940 1.00 51.88 C
ATOM 4024 O GLN A 612 134.747 150.054 181.759 1.00 51.88 O
ATOM 4025 CB GLN A 612 136.013 152.193 183.451 1.00 51.88 C
ATOM 4026 CG GLN A 612 136.561 152.233 182.034 1.00 51.88 C
ATOM 4027 CD GLN A 612 137.400 153.461 181.767 1.00 51.88 C
ATOM 4028 OE1 GLN A 612 137.855 154.127 182.695 1.00 51.88 O
ATOM 4029 NE2 GLN A 612 137.617 153.766 180.494 1.00 51.88 N
ATOM 4030 N LEU A 613 133.263 150.111 183.458 1.00 45.62 N
ATOM 4031 CA LEU A 613 132.122 149.576 182.732 1.00 45.62 C
ATOM 4032 C LEU A 613 131.298 150.698 182.108 1.00 45.62 C
ATOM 4033 O LEU A 613 131.309 151.830 182.600 1.00 45.62 O
ATOM 4034 CB LEU A 613 131.239 148.763 183.670 1.00 45.62 C
ATOM 4035 CG LEU A 613 131.734 147.363 184.021 1.00 45.62 C
ATOM 4036 CD1 LEU A 613 132.945 147.445 184.909 1.00 45.62 C
ATOM 4037 CD2 LEU A 613 130.640 146.585 184.710 1.00 45.62 C
ATOM 4038 N PRO A 614 130.569 150.424 181.013 1.00 45.02 N
ATOM 4039 CA PRO A 614 130.530 149.168 180.256 1.00 45.02 C
ATOM 4040 C PRO A 614 131.675 149.071 179.255 1.00 45.02 C
ATOM 4041 O PRO A 614 132.144 150.106 178.788 1.00 45.02 O
ATOM 4042 CB PRO A 614 129.180 149.235 179.529 1.00 45.02 C
ATOM 4043 CG PRO A 614 128.469 150.438 180.095 1.00 45.02 C

ATOM 4044 CD PRO A 614 129.543 151.358 180.533 1.00 45.02 C
ATOM 4045 N SER A 615 132.113 147.859 178.920 1.00 45.88 N
ATOM 4046 CA SER A 615 133.277 147.671 178.066 1.00 45.88 C
ATOM 4047 C SER A 615 132.955 146.694 176.943 1.00 45.88 C
ATOM 4048 O SER A 615 131.861 146.131 176.866 1.00 45.88 O
ATOM 4049 CB SER A 615 134.479 147.168 178.869 1.00 45.88 C
ATOM 4050 OG SER A 615 134.259 145.845 179.315 1.00 45.88 O
ATOM 4051 N LEU A 616 133.937 146.503 176.066 1.00 41.00 N
ATOM 4052 CA LEU A 616 133.882 145.564 174.955 1.00 41.00 C
ATOM 4053 C LEU A 616 135.292 145.396 174.415 1.00 41.00 C
ATOM 4054 O LEU A 616 136.001 146.383 174.221 1.00 41.00 O
ATOM 4055 CB LEU A 616 132.946 146.058 173.849 1.00 41.00 C
ATOM 4056 CG LEU A 616 132.847 145.155 172.622 1.00 41.00 C
ATOM 4057 CD1 LEU A 616 131.972 143.954 172.913 1.00 41.00 C
ATOM 4058 CD2 LEU A 616 132.313 145.928 171.437 1.00 41.00 C
ATOM 4059 N LYS A 617 135.694 144.151 174.175 1.00 37.67 N
ATOM 4060 CA LYS A 617 137.055 143.870 173.748 1.00 37.67 C
ATOM 4061 C LYS A 617 137.046 142.703 172.776 1.00 37.67 C
ATOM 4062 O LYS A 617 136.267 141.763 172.938 1.00 37.67 O
ATOM 4063 CB LYS A 617 137.956 143.552 174.942 1.00 37.67 C
ATOM 4064 CG LYS A 617 138.121 144.702 175.917 1.00 37.67 C
ATOM 4065 CD LYS A 617 139.166 144.379 176.967 1.00 37.67 C
ATOM 4066 CE LYS A 617 139.540 145.608 177.766 1.00 37.67 C
ATOM 4067 NZ LYS A 617 140.141 146.657 176.907 1.00 37.67 N
ATOM 4068 N ILE A 618 137.920 142.765 171.774 1.00 34.20 N
ATOM 4069 CA ILE A 618 137.986 141.758 170.721 1.00 34.20 C
ATOM 4070 C ILE A 618 139.450 141.511 170.391 1.00 34.20 C
ATOM 4071 O ILE A 618 140.115 142.379 169.816 1.00 34.20 O
ATOM 4072 CB ILE A 618 137.212 142.184 169.471 1.00 34.20 C
ATOM 4073 CG1 ILE A 618 135.721 142.267 169.783 1.00 34.20 C
ATOM 4074 CG2 ILE A 618 137.457 141.210 168.348 1.00 34.20 C
ATOM 4075 CD1 ILE A 618 134.907 142.890 168.690 1.00 34.20 C
ATOM 4076 N PHE A 619 139.951 140.330 170.742 1.00 37.64 N
ATOM 4077 CA PHE A 619 141.332 139.945 170.484 1.00 37.64 C

ATOM 4078 C PHE A 619 141.378 138.995 169.297 1.00 37.64 C
ATOM 4079 O PHE A 619 140.635 138.010 169.257 1.00 37.64 O
ATOM 4080 CB PHE A 619 141.951 139.288 171.715 1.00 37.64 C
ATOM 4081 CG PHE A 619 141.755 140.071 172.973 1.00 37.64 C
ATOM 4082 CD1 PHE A 619 142.476 141.223 173.202 1.00 37.64 C
ATOM 4083 CD2 PHE A 619 140.844 139.661 173.922 1.00 37.64 C
ATOM 4084 CE1 PHE A 619 142.294 141.947 174.349 1.00 37.64 C
ATOM 4085 CE2 PHE A 619 140.660 140.383 175.072 1.00 37.64 C
ATOM 4086 CZ PHE A 619 141.385 141.528 175.285 1.00 37.64 C
ATOM 4087 N ILE A 620 142.249 139.284 168.345 1.00 45.33 N
ATOM 4088 CA ILE A 620 142.280 138.563 167.078 1.00 45.33 C
ATOM 4089 C ILE A 620 143.251 137.397 167.165 1.00 45.33 C
ATOM 4090 O ILE A 620 144.359 137.521 167.697 1.00 45.33 O
ATOM 4091 CB ILE A 620 142.648 139.509 165.923 1.00 45.33 C
ATOM 4092 CG1 ILE A 620 141.454 140.394 165.571 1.00 45.33 C
ATOM 4093 CG2 ILE A 620 143.089 138.716 164.717 1.00 45.33 C
ATOM 4094 CD1 ILE A 620 141.715 141.335 164.430 1.00 45.33 C
ATOM 4095 N ALA A 621 142.823 136.256 166.637 1.00 49.64 N
ATOM 4096 CA ALA A 621 143.598 135.022 166.563 1.00 49.64 C
ATOM 4097 C ALA A 621 143.477 134.431 165.169 1.00 49.64 C
ATOM 4098 O ALA A 621 143.169 133.252 164.987 1.00 49.64 O
ATOM 4099 CB ALA A 621 143.143 134.022 167.618 1.00 49.64 C
ATOM 4100 N GLY A 622 143.736 135.264 164.163 1.00 57.91 N
ATOM 4101 CA GLY A 622 143.317 135.031 162.794 1.00 57.91 C
ATOM 4102 C GLY A 622 143.324 133.596 162.318 1.00 57.91 C
ATOM 4103 O GLY A 622 144.282 132.853 162.547 1.00 57.91 O
ATOM 4104 N ASN A 623 142.238 133.200 161.661 1.00 59.66 N
ATOM 4105 CA ASN A 623 141.133 134.124 161.438 1.00 59.66 C
ATOM 4106 C ASN A 623 139.898 133.743 162.252 1.00 59.66 C
ATOM 4107 O ASN A 623 138.987 133.080 161.763 1.00 59.66 O
ATOM 4108 CB ASN A 623 140.784 134.186 159.952 1.00 59.66 C
ATOM 4109 CG ASN A 623 140.378 132.842 159.394 1.00 59.66 C
ATOM 4110 OD1 ASN A 623 140.832 131.800 159.863 1.00 59.66 O
ATOM 4111 ND2 ASN A 623 139.511 132.856 158.389 1.00 59.66 N

ATOM 4112 N SER A 624 139.885 134.189 163.504 1.00 51.74 N
ATOM 4113 CA SER A 624 138.760 134.034 164.413 1.00 51.74 C
ATOM 4114 C SER A 624 139.091 134.805 165.680 1.00 51.74 C
ATOM 4115 O SER A 624 140.220 134.734 166.166 1.00 51.74 O
ATOM 4116 CB SER A 624 138.492 132.558 164.724 1.00 51.74 C
ATOM 4117 OG SER A 624 137.399 132.419 165.610 1.00 51.74 O
ATOM 4118 N ALA A 625 138.116 135.537 166.207 1.00 46.41 N
ATOM 4119 CA ALA A 625 138.359 136.464 167.300 1.00 46.41 C
ATOM 4120 C ALA A 625 137.536 136.100 168.528 1.00 46.41 C
ATOM 4121 O ALA A 625 136.439 135.547 168.419 1.00 46.41 O
ATOM 4122 CB ALA A 625 138.040 137.899 166.879 1.00 46.41 C
ATOM 4123 N TYR A 626 138.083 136.414 169.700 1.00 39.35 N
ATOM 4124 CA TYR A 626 137.356 136.314 170.955 1.00 39.35 C
ATOM 4125 C TYR A 626 136.592 137.606 171.206 1.00 39.35 C
ATOM 4126 O TYR A 626 137.013 138.685 170.788 1.00 39.35 O
ATOM 4127 CB TYR A 626 138.302 136.057 172.128 1.00 39.35 C
ATOM 4128 CG TYR A 626 139.230 134.877 171.966 1.00 39.35 C
ATOM 4129 CD1 TYR A 626 140.435 135.005 171.297 1.00 39.35 C
ATOM 4130 CD2 TYR A 626 138.913 133.642 172.505 1.00 39.35 C
ATOM 4131 CE1 TYR A 626 141.289 133.935 171.156 1.00 39.35 C
ATOM 4132 CE2 TYR A 626 139.761 132.567 172.369 1.00 39.35 C
ATOM 4133 CZ TYR A 626 140.947 132.719 171.693 1.00 39.35 C
ATOM 4134 OH TYR A 626 141.796 131.650 171.553 1.00 39.35 O
ATOM 4135 N GLU A 627 135.466 137.493 171.904 1.00 43.34 N
ATOM 4136 CA GLU A 627 134.649 138.654 172.241 1.00 43.34 C
ATOM 4137 C GLU A 627 134.356 138.640 173.733 1.00 43.34 C
ATOM 4138 O GLU A 627 133.582 137.805 174.207 1.00 43.34 O
ATOM 4139 CB GLU A 627 133.352 138.675 171.440 1.00 43.34 C
ATOM 4140 CG GLU A 627 132.451 139.835 171.806 1.00 43.34 C
ATOM 4141 CD GLU A 627 131.170 139.863 171.005 1.00 43.34 C
ATOM 4142 OE1 GLU A 627 130.989 138.984 170.141 1.00 43.34 O
ATOM 4143 OE2 GLU A 627 130.342 140.765 171.240 1.00 43.34 O
ATOM 4144 N TYR A 628 134.963 139.569 174.465 1.00 39.64 N
ATOM 4145 CA TYR A 628 134.768 139.711 175.902 1.00 39.64 C

ATOM 4146 C TYR A 628 133.872 140.912 176.160 1.00 39.64 C
ATOM 4147 O TYR A 628 134.200 142.030 175.753 1.00 39.64 O
ATOM 4148 CB TYR A 628 136.105 139.884 176.620 1.00 39.64 C
ATOM 4149 CG TYR A 628 136.904 138.614 176.771 1.00 39.64 C
ATOM 4150 CD1 TYR A 628 136.755 137.811 177.884 1.00 39.64 C
ATOM 4151 CD2 TYR A 628 137.816 138.227 175.807 1.00 39.64 C
ATOM 4152 CE1 TYR A 628 137.482 136.656 178.030 1.00 39.64 C
ATOM 4153 CE2 TYR A 628 138.547 137.071 175.946 1.00 39.64 C
ATOM 4154 CZ TYR A 628 138.375 136.291 177.060 1.00 39.64 C
ATOM 4155 OH TYR A 628 139.102 135.137 177.208 1.00 39.64 O
ATOM 4156 N VAL A 629 132.752 140.686 176.839 1.00 42.23 N
ATOM 4157 CA VAL A 629 131.800 141.738 177.176 1.00 42.23 C
ATOM 4158 C VAL A 629 131.743 141.854 178.691 1.00 42.23 C
ATOM 4159 O VAL A 629 131.326 140.911 179.374 1.00 42.23 O
ATOM 4160 CB VAL A 629 130.405 141.455 176.602 1.00 42.23 C
ATOM 4161 CG1 VAL A 629 129.440 142.543 177.017 1.00 42.23 C
ATOM 4162 CG2 VAL A 629 130.468 141.356 175.099 1.00 42.23 C
ATOM 4163 N ASP A 630 132.154 143.008 179.213 1.00 46.94 N
ATOM 4164 CA ASP A 630 132.157 143.271 180.648 1.00 46.94 C
ATOM 4165 C ASP A 630 133.164 142.399 181.388 1.00 46.94 C
ATOM 4166 O ASP A 630 132.933 142.008 182.532 1.00 46.94 O
ATOM 4167 CB ASP A 630 130.764 143.088 181.250 1.00 46.94 C
ATOM 4168 CG ASP A 630 129.988 144.382 181.317 1.00 46.94 C
ATOM 4169 OD1 ASP A 630 130.486 145.397 180.793 1.00 46.94 O
ATOM 4170 OD2 ASP A 630 128.883 144.387 181.895 1.00 46.94 O
ATOM 4171 N TYR A 631 134.290 142.091 180.750 1.00 48.83 N
ATOM 4172 CA TYR A 631 135.328 141.264 181.353 1.00 48.83 C
ATOM 4173 C TYR A 631 134.801 139.859 181.649 1.00 48.83 C
ATOM 4174 O TYR A 631 134.847 139.369 182.776 1.00 48.83 O
ATOM 4175 CB TYR A 631 135.876 141.933 182.614 1.00 48.83 C
ATOM 4176 CG TYR A 631 136.381 143.333 182.367 1.00 48.83 C
ATOM 4177 CD1 TYR A 631 137.596 143.549 181.739 1.00 48.83 C
ATOM 4178 CD2 TYR A 631 135.638 144.438 182.745 1.00 48.83 C
ATOM 4179 CE1 TYR A 631 138.062 144.823 181.505 1.00 48.83 C

ATOM 4180 CE2 TYR A 631 136.096 145.716 182.512 1.00 48.83 C
ATOM 4181 CZ TYR A 631 137.308 145.902 181.890 1.00 48.83 C
ATOM 4182 OH TYR A 631 137.775 147.172 181.654 1.00 48.83 O
ATOM 4183 N LEU A 632 134.295 139.217 180.598 1.00 43.17 N
ATOM 4184 CA LEU A 632 133.782 137.855 180.657 1.00 43.17 C
ATOM 4185 C LEU A 632 133.629 137.329 179.240 1.00 43.17 C
ATOM 4186 O LEU A 632 133.148 138.045 178.362 1.00 43.17 O
ATOM 4187 CB LEU A 632 132.435 137.787 181.387 1.00 43.17 C
ATOM 4188 CG LEU A 632 132.427 138.021 182.893 1.00 43.17 C
ATOM 4189 CD1 LEU A 632 131.009 138.078 183.412 1.00 43.17 C
ATOM 4190 CD2 LEU A 632 133.189 136.916 183.580 1.00 43.17 C
ATOM 4191 N PHE A 633 134.037 136.082 179.026 1.00 43.52 N
ATOM 4192 CA PHE A 633 133.910 135.475 177.710 1.00 43.52 C
ATOM 4193 C PHE A 633 132.453 135.471 177.271 1.00 43.52 C
ATOM 4194 O PHE A 633 131.551 135.180 178.059 1.00 43.52 O
ATOM 4195 CB PHE A 633 134.458 134.049 177.733 1.00 43.52 C
ATOM 4196 CG PHE A 633 134.664 133.455 176.372 1.00 43.52 C
ATOM 4197 CD1 PHE A 633 135.616 133.969 175.516 1.00 43.52 C
ATOM 4198 CD2 PHE A 633 133.915 132.373 175.954 1.00 43.52 C
ATOM 4199 CE1 PHE A 633 135.809 133.424 174.270 1.00 43.52 C
ATOM 4200 CE2 PHE A 633 134.106 131.825 174.708 1.00 43.52 C
ATOM 4201 CZ PHE A 633 135.054 132.351 173.866 1.00 43.52 C
ATOM 4202 N LYS A 634 132.223 135.807 176.002 1.00 47.30 N
ATOM 4203 CA LYS A 634 130.876 135.827 175.441 1.00 47.30 C
ATOM 4204 C LYS A 634 130.694 134.780 174.351 1.00 47.30 C
ATOM 4205 O LYS A 634 129.804 133.932 174.464 1.00 47.30 O
ATOM 4206 CB LYS A 634 130.556 137.224 174.904 1.00 47.30 C
ATOM 4207 CG LYS A 634 129.116 137.408 174.491 1.00 47.30 C
ATOM 4208 CD LYS A 634 128.179 137.172 175.655 1.00 47.30 C
ATOM 4209 CE LYS A 634 126.985 138.102 175.581 1.00 47.30 C
ATOM 4210 NZ LYS A 634 126.444 138.178 174.200 1.00 47.30 N
ATOM 4211 N ARG A 635 131.507 134.808 173.298 1.00 49.57 N
ATOM 4212 CA ARG A 635 131.410 133.820 172.231 1.00 49.57 C
ATOM 4213 C ARG A 635 132.496 134.114 171.203 1.00 49.57 C

ATOM 4214 O ARG A 635 133.188 135.133 171.275 1.00 49.57 O
ATOM 4215 CB ARG A 635 130.030 133.823 171.581 1.00 49.57 C
ATOM 4216 CG ARG A 635 129.817 134.932 170.572 1.00 49.57 C
ATOM 4217 CD ARG A 635 128.387 134.927 170.065 1.00 49.57 C
ATOM 4218 NE ARG A 635 128.242 135.696 168.836 1.00 49.57 N
ATOM 4219 CZ ARG A 635 128.259 137.022 168.782 1.00 49.57 C
ATOM 4220 NH1 ARG A 635 128.414 137.728 169.892 1.00 49.57 N
ATOM 4221 NH2 ARG A 635 128.121 137.642 167.620 1.00 49.57 N
ATOM 4222 N MET A 636 132.630 133.206 170.239 1.00 49.26 N
ATOM 4223 CA MET A 636 133.655 133.302 169.207 1.00 49.26 C
ATOM 4224 C MET A 636 133.081 133.996 167.979 1.00 49.26 C
ATOM 4225 O MET A 636 132.114 133.514 167.381 1.00 49.26 O
ATOM 4226 CB MET A 636 134.179 131.916 168.841 1.00 49.26 C
ATOM 4227 CG MET A 636 135.336 131.442 169.695 1.00 49.26 C
ATOM 4228 SD MET A 636 136.904 132.156 169.184 1.00 49.26 S
ATOM 4229 CE MET A 636 138.048 130.997 169.917 1.00 49.26 C
ATOM 4230 N ILE A 637 133.676 135.117 167.606 1.00 53.84 N
ATOM 4231 CA ILE A 637 133.245 135.879 166.445 1.00 53.84 C
ATOM 4232 C ILE A 637 134.010 135.395 165.221 1.00 53.84 C
ATOM 4233 O ILE A 637 135.026 134.706 165.323 1.00 53.84 O
ATOM 4234 CB ILE A 637 133.446 137.389 166.664 1.00 53.84 C
ATOM 4235 CG1 ILE A 637 132.395 138.185 165.901 1.00 53.84 C
ATOM 4236 CG2 ILE A 637 134.829 137.807 166.215 1.00 53.84 C
ATOM 4237 CD1 ILE A 637 132.410 139.656 166.222 1.00 53.84 C
ATOM 4238 N ASP A 638 133.509 135.753 164.043 1.00 62.97 N
ATOM 4239 CA ASP A 638 134.167 135.456 162.779 1.00 62.97 C
ATOM 4240 C ASP A 638 134.538 136.757 162.082 1.00 62.97 C
ATOM 4241 O ASP A 638 133.770 137.722 162.102 1.00 62.97 O
ATOM 4242 CB ASP A 638 133.268 134.614 161.873 1.00 62.97 C
ATOM 4243 CG ASP A 638 131.870 135.184 161.751 1.00 62.97 C
ATOM 4244 OD1 ASP A 638 131.736 136.369 161.387 1.00 62.97 O
ATOM 4245 OD2 ASP A 638 130.901 134.445 162.023 1.00 62.97 O
ATOM 4246 N LEU A 639 135.714 136.781 161.456 1.00 62.54 N
ATOM 4247 CA LEU A 639 136.262 138.018 160.904 1.00 62.54 C

ATOM 4248 C LEU A 639 135.565 138.394 159.595 1.00 62.54 C
ATOM 4249 O LEU A 639 136.175 138.516 158.534 1.00 62.54 O
ATOM 4250 CB LEU A 639 137.765 137.887 160.705 1.00 62.54 C
ATOM 4251 CG LEU A 639 138.614 138.008 161.965 1.00 62.54 C
ATOM 4252 CD1 LEU A 639 140.087 137.940 161.614 1.00 62.54 C
ATOM 4253 CD2 LEU A 639 138.292 139.296 162.695 1.00 62.54 C
ATOM 4254 N SER A 640 134.250 138.581 159.693 1.00 67.22 N
ATOM 4255 CA SER A 640 133.474 139.100 158.577 1.00 67.22 C
ATOM 4256 C SER A 640 132.423 140.111 159.003 1.00 67.22 C
ATOM 4257 O SER A 640 131.673 140.588 158.147 1.00 67.22 O
ATOM 4258 CB SER A 640 132.801 137.955 157.804 1.00 67.22 C
ATOM 4259 OG SER A 640 133.768 137.126 157.183 1.00 67.22 O
ATOM 4260 N SER A 641 132.338 140.449 160.284 1.00 64.94 N
ATOM 4261 CA SER A 641 131.506 141.547 160.747 1.00 64.94 C
ATOM 4262 C SER A 641 132.331 142.775 161.097 1.00 64.94 C
ATOM 4263 O SER A 641 131.829 143.682 161.768 1.00 64.94 O
ATOM 4264 CB SER A 641 130.672 141.109 161.952 1.00 64.94 C
ATOM 4265 OG SER A 641 129.755 142.122 162.330 1.00 64.94 O
ATOM 4266 N ILE A 642 133.586 142.820 160.656 1.00 54.96 N
ATOM 4267 CA ILE A 642 134.499 143.922 160.928 1.00 54.96 C
ATOM 4268 C ILE A 642 135.077 144.356 159.590 1.00 54.96 C
ATOM 4269 O ILE A 642 135.873 143.626 158.988 1.00 54.96 O
ATOM 4270 CB ILE A 642 135.612 143.521 161.902 1.00 54.96 C
ATOM 4271 CG1 ILE A 642 135.011 142.941 163.179 1.00 54.96 C
ATOM 4272 CG2 ILE A 642 136.483 144.710 162.225 1.00 54.96 C
ATOM 4273 CD1 ILE A 642 136.023 142.282 164.070 1.00 54.96 C
ATOM 4274 N SER A 643 134.683 145.537 159.125 1.00 54.47 N
ATOM 4275 CA SER A 643 135.044 145.982 157.787 1.00 54.47 C
ATOM 4276 C SER A 643 136.469 146.515 157.766 1.00 54.47 C
ATOM 4277 O SER A 643 136.832 147.372 158.575 1.00 54.47 O
ATOM 4278 CB SER A 643 134.073 147.058 157.309 1.00 54.47 C
ATOM 4279 OG SER A 643 134.303 148.279 157.983 1.00 54.47 O
ATOM 4280 N THR A 644 137.270 146.013 156.832 1.00 58.22 N
ATOM 4281 CA THR A 644 138.662 146.414 156.719 1.00 58.22 C

ATOM 4282 C THR A 644 138.763 147.880 156.307 1.00 58.22 C
ATOM 4283 O THR A 644 137.766 148.555 156.046 1.00 58.22 O
ATOM 4284 CB THR A 644 139.387 145.524 155.718 1.00 58.22 C
ATOM 4285 OG1 THR A 644 138.556 145.332 154.570 1.00 58.22 O
ATOM 4286 CG2 THR A 644 139.687 144.178 156.337 1.00 58.22 C
ATOM 4287 N VAL A 645 139.994 148.378 156.247 1.00 63.43 N
ATOM 4288 CA VAL A 645 140.256 149.762 155.875 1.00 63.43 C
ATOM 4289 C VAL A 645 140.747 149.879 154.438 1.00 63.43 C
ATOM 4290 O VAL A 645 140.344 150.794 153.721 1.00 63.43 O
ATOM 4291 CB VAL A 645 141.259 150.408 156.852 1.00 63.43 C
ATOM 4292 CG1 VAL A 645 141.690 151.762 156.335 1.00 63.43 C
ATOM 4293 CG2 VAL A 645 140.633 150.560 158.218 1.00 63.43 C
ATOM 4294 N ASP A 646 141.619 148.969 153.998 1.00 75.17 N
ATOM 4295 CA ASP A 646 142.152 149.069 152.643 1.00 75.17 C
ATOM 4296 C ASP A 646 141.033 149.078 151.611 1.00 75.17 C
ATOM 4297 O ASP A 646 140.923 150.010 150.807 1.00 75.17 O
ATOM 4298 CB ASP A 646 143.120 147.923 152.359 1.00 75.17 C
ATOM 4299 CG ASP A 646 143.698 147.996 150.961 1.00 75.17 C
ATOM 4300 OD1 ASP A 646 143.610 149.075 150.339 1.00 75.17 O
ATOM 4301 OD2 ASP A 646 144.232 146.976 150.480 1.00 75.17 O
ATOM 4302 N SER A 647 140.194 148.044 151.612 1.00 79.06 N
ATOM 4303 CA SER A 647 139.082 148.003 150.674 1.00 79.06 C
ATOM 4304 C SER A 647 137.909 148.814 151.204 1.00 79.06 C
ATOM 4305 O SER A 647 136.771 148.335 151.222 1.00 79.06 O
ATOM 4306 CB SER A 647 138.651 146.559 150.412 1.00 79.06 C
ATOM 4307 OG SER A 647 137.309 146.505 149.959 1.00 79.06 O
ATOM 4308 N MET A 648 138.183 150.046 151.638 1.00 79.37 N
ATOM 4309 CA MET A 648 137.124 150.999 151.963 1.00 79.37 C
ATOM 4310 C MET A 648 137.728 152.403 151.918 1.00 79.37 C
ATOM 4311 O MET A 648 138.366 152.836 152.881 1.00 79.37 O
ATOM 4312 CB MET A 648 136.495 150.709 153.315 1.00 79.37 C
ATOM 4313 CG MET A 648 135.440 149.621 153.297 1.00 79.37 C
ATOM 4314 SD MET A 648 134.600 149.482 154.883 1.00 79.37 S
ATOM 4315 CE MET A 648 133.760 151.061 154.952 1.00 79.37 C

ATOM 4316 N ILE A 649 137.523 153.092 150.801 1.00 86.72 N
ATOM 4317 CA ILE A 649 137.750 154.527 150.727 1.00 86.72 C
ATOM 4318 C ILE A 649 136.446 155.292 150.582 1.00 86.72 C
ATOM 4319 O ILE A 649 136.447 156.522 150.747 1.00 86.72 O
ATOM 4320 CB ILE A 649 138.711 154.892 149.578 1.00 86.72 C
ATOM 4321 CG1 ILE A 649 139.915 153.951 149.557 1.00 86.72 C
ATOM 4322 CG2 ILE A 649 139.171 156.332 149.709 1.00 86.72 C
ATOM 4323 CD1 ILE A 649 140.867 154.214 148.413 1.00 86.72 C
ATOM 4324 N ALA A 650 135.343 154.613 150.293 1.00 90.45 N
ATOM 4325 CA ALA A 650 134.068 155.266 150.044 1.00 90.45 C
ATOM 4326 C ALA A 650 133.500 155.791 151.359 1.00 90.45 C
ATOM 4327 O ALA A 650 134.142 155.756 152.412 1.00 90.45 O
ATOM 4328 CB ALA A 650 133.110 154.304 149.348 1.00 90.45 C
ATOM 4329 N LEU A 651 132.272 156.293 151.298 1.00 89.48 N
ATOM 4330 CA LEU A 651 131.661 156.924 152.456 1.00 89.48 C
ATOM 4331 C LEU A 651 131.504 155.936 153.606 1.00 89.48 C
ATOM 4332 O LEU A 651 131.430 154.719 153.417 1.00 89.48 O
ATOM 4333 CB LEU A 651 130.304 157.520 152.079 1.00 89.48 C
ATOM 4334 CG LEU A 651 129.157 156.552 151.779 1.00 89.48 C
ATOM 4335 CD1 LEU A 651 127.843 157.308 151.680 1.00 89.48 C
ATOM 4336 CD2 LEU A 651 129.420 155.770 150.503 1.00 89.48 C
ATOM 4337 N ASP A 652 131.454 156.494 154.813 1.00 81.96 N
ATOM 4338 CA ASP A 652 131.275 155.775 156.070 1.00 81.96 C
ATOM 4339 C ASP A 652 130.085 156.406 156.785 1.00 81.96 C
ATOM 4340 O ASP A 652 130.181 156.891 157.912 1.00 81.96 O
ATOM 4341 CB ASP A 652 132.533 155.800 156.935 1.00 81.96 C
ATOM 4342 CG ASP A 652 133.151 157.174 157.019 1.00 81.96 C
ATOM 4343 OD1 ASP A 652 132.444 158.162 156.736 1.00 81.96 O
ATOM 4344 OD2 ASP A 652 134.346 157.266 157.367 1.00 81.96 O
ATOM 4345 N ILE A 653 128.935 156.374 156.110 1.00 84.10 N
ATOM 4346 CA ILE A 653 127.996 157.487 156.018 1.00 84.10 C
ATOM 4347 C ILE A 653 128.020 158.360 157.263 1.00 84.10 C
ATOM 4348 O ILE A 653 128.082 159.589 157.157 1.00 84.10 O
ATOM 4349 CB ILE A 653 126.570 156.962 155.763 1.00 84.10 C

ATOM 4350 CG1 ILE A 653 126.263 155.778 156.684 1.00 84.10 C
ATOM 4351 CG2 ILE A 653 126.402 156.554 154.311 1.00 84.10 C
ATOM 4352 CD1 ILE A 653 124.784 155.512 156.868 1.00 84.10 C
ATOM 4353 N ASP A 654 127.977 157.759 158.437 1.00 75.25 N
ATOM 4354 CA ASP A 654 128.196 158.616 159.590 1.00 75.25 C
ATOM 4355 C ASP A 654 128.409 157.813 160.863 1.00 75.25 C
ATOM 4356 O ASP A 654 127.641 156.889 161.155 1.00 75.25 O
ATOM 4357 CB ASP A 654 127.023 159.582 159.765 1.00 75.25 C
ATOM 4358 CG ASP A 654 125.681 158.905 159.589 1.00 75.25 C
ATOM 4359 OD1 ASP A 654 125.593 157.966 158.771 1.00 75.25 O
ATOM 4360 OD2 ASP A 654 124.713 159.314 160.263 1.00 75.25 O
ATOM 4361 N PRO A 655 129.436 158.133 161.639 1.00 63.65 N
ATOM 4362 CA PRO A 655 129.493 157.654 163.020 1.00 63.65 C
ATOM 4363 C PRO A 655 128.356 158.263 163.826 1.00 63.65 C
ATOM 4364 O PRO A 655 127.675 159.191 163.390 1.00 63.65 O
ATOM 4365 CB PRO A 655 130.863 158.132 163.503 1.00 63.65 C
ATOM 4366 CG PRO A 655 131.660 158.308 162.240 1.00 63.65 C
ATOM 4367 CD PRO A 655 130.679 158.808 161.236 1.00 63.65 C
ATOM 4368 N LEU A 656 128.152 157.730 165.027 1.00 51.88 N
ATOM 4369 CA LEU A 656 126.943 158.021 165.783 1.00 51.88 C
ATOM 4370 C LEU A 656 127.149 158.988 166.945 1.00 51.88 C
ATOM 4371 O LEU A 656 126.207 159.219 167.708 1.00 51.88 O
ATOM 4372 CB LEU A 656 126.318 156.726 166.295 1.00 51.88 C
ATOM 4373 CG LEU A 656 125.121 156.251 165.482 1.00 51.88 C
ATOM 4374 CD1 LEU A 656 124.436 155.112 166.195 1.00 51.88 C
ATOM 4375 CD2 LEU A 656 124.165 157.398 165.261 1.00 51.88 C
ATOM 4376 N GLU A 657 128.336 159.569 167.105 1.00 50.59 N
ATOM 4377 CA GLU A 657 128.543 160.583 168.138 1.00 50.59 C
ATOM 4378 C GLU A 657 128.235 160.014 169.528 1.00 50.59 C
ATOM 4379 O GLU A 657 127.298 160.422 170.213 1.00 50.59 O
ATOM 4380 CB GLU A 657 127.686 161.817 167.840 1.00 50.59 C
ATOM 4381 CG GLU A 657 127.760 162.917 168.873 1.00 50.59 C
ATOM 4382 CD GLU A 657 127.285 164.248 168.327 1.00 50.59 C
ATOM 4383 OE1 GLU A 657 127.637 164.579 167.177 1.00 50.59 O

ATOM 4384 OE2 GLU A 657 126.556 164.965 169.041 1.00 50.59 O
ATOM 4385 N ASN A 658 129.049 159.035 169.914 1.00 47.73 N
ATOM 4386 CA ASN A 658 128.857 158.333 171.174 1.00 47.73 C
ATOM 4387 C ASN A 658 129.160 159.241 172.363 1.00 47.73 C
ATOM 4388 O ASN A 658 129.810 160.280 172.238 1.00 47.73 O
ATOM 4389 CB ASN A 658 129.748 157.096 171.235 1.00 47.73 C
ATOM 4390 CG ASN A 658 129.559 156.189 170.048 1.00 47.73 C
ATOM 4391 OD1 ASN A 658 128.443 155.995 169.576 1.00 47.73 O
ATOM 4392 ND2 ASN A 658 130.650 155.626 169.555 1.00 47.73 N
ATOM 4393 N THR A 659 128.678 158.828 173.534 1.00 49.56 N
ATOM 4394 CA THR A 659 128.877 159.553 174.781 1.00 49.56 C
ATOM 4395 C THR A 659 129.401 158.598 175.845 1.00 49.56 C
ATOM 4396 O THR A 659 129.637 157.415 175.590 1.00 49.56 O
ATOM 4397 CB THR A 659 127.582 160.222 175.255 1.00 49.56 C
ATOM 4398 OG1 THR A 659 127.835 160.954 176.458 1.00 49.56 O
ATOM 4399 CG2 THR A 659 126.524 159.179 175.526 1.00 49.56 C
ATOM 4400 N ASP A 660 129.581 159.126 177.055 1.00 54.68 N
ATOM 4401 CA ASP A 660 130.154 158.367 178.161 1.00 54.68 C
ATOM 4402 C ASP A 660 129.852 159.059 179.485 1.00 54.68 C
ATOM 4403 O ASP A 660 130.198 160.229 179.665 1.00 54.68 O
ATOM 4404 CB ASP A 660 131.661 158.212 177.973 1.00 54.68 C
ATOM 4405 CG ASP A 660 132.246 157.154 178.867 1.00 54.68 C
ATOM 4406 OD1 ASP A 660 131.709 156.958 179.974 1.00 54.68 O
ATOM 4407 OD2 ASP A 660 133.233 156.510 178.460 1.00 54.68 O
ATOM 4408 N PHE A 661 129.219 158.354 180.424 1.00 54.71 N
ATOM 4409 CA PHE A 661 128.695 159.003 181.616 1.00 54.71 C
ATOM 4410 C PHE A 661 129.505 158.759 182.879 1.00 54.71 C
ATOM 4411 O PHE A 661 129.317 159.488 183.855 1.00 54.71 O
ATOM 4412 CB PHE A 661 127.246 158.565 181.866 1.00 54.71 C
ATOM 4413 CG PHE A 661 126.252 159.229 180.961 1.00 54.71 C
ATOM 4414 CD1 PHE A 661 125.947 160.566 181.112 1.00 54.71 C
ATOM 4415 CD2 PHE A 661 125.628 158.517 179.957 1.00 54.71 C
ATOM 4416 CE1 PHE A 661 125.037 161.177 180.280 1.00 54.71 C
ATOM 4417 CE2 PHE A 661 124.718 159.126 179.125 1.00 54.71 C

ATOM 4418 CZ PHE A 661 124.423 160.457 179.287 1.00 54.71 C
ATOM 4419 N ARG A 662 130.393 157.766 182.896 1.00 59.66 N
ATOM 4420 CA ARG A 662 131.199 157.526 184.089 1.00 59.66 C
ATOM 4421 C ARG A 662 132.391 158.473 184.148 1.00 59.66 C
ATOM 4422 O ARG A 662 132.568 159.211 185.125 1.00 59.66 O
ATOM 4423 CB ARG A 662 131.667 156.071 184.129 1.00 59.66 C
ATOM 4424 CG ARG A 662 130.543 155.052 184.156 1.00 59.66 C
ATOM 4425 CD ARG A 662 130.000 154.865 185.558 1.00 59.66 C
ATOM 4426 NE ARG A 662 129.766 153.458 185.870 1.00 59.66 N
ATOM 4427 CZ ARG A 662 128.692 152.778 185.486 1.00 59.66 C
ATOM 4428 NH1 ARG A 662 127.750 153.376 184.772 1.00 59.66 N
ATOM 4429 NH2 ARG A 662 128.558 151.501 185.815 1.00 59.66 N
ATOM 4430 N VAL A 663 133.224 158.466 183.106 1.00 59.08 N
ATOM 4431 CA VAL A 663 134.399 159.330 183.103 1.00 59.08 C
ATOM 4432 C VAL A 663 133.989 160.793 183.108 1.00 59.08 C
ATOM 4433 O VAL A 663 134.689 161.640 183.674 1.00 59.08 O
ATOM 4434 CB VAL A 663 135.305 159.007 181.901 1.00 59.08 C
ATOM 4435 CG1 VAL A 663 135.728 157.553 181.937 1.00 59.08 C
ATOM 4436 CG2 VAL A 663 134.603 159.339 180.606 1.00 59.08 C
ATOM 4437 N LEU A 664 132.861 161.124 182.480 1.00 57.60 N
ATOM 4438 CA LEU A 664 132.391 162.503 182.519 1.00 57.60 C
ATOM 4439 C LEU A 664 132.091 162.937 183.947 1.00 57.60 C
ATOM 4440 O LEU A 664 132.435 164.052 184.351 1.00 57.60 O
ATOM 4441 CB LEU A 664 131.158 162.665 181.636 1.00 57.60 C
ATOM 4442 CG LEU A 664 131.434 162.883 180.152 1.00 57.60 C
ATOM 4443 CD1 LEU A 664 130.171 163.318 179.440 1.00 57.60 C
ATOM 4444 CD2 LEU A 664 132.526 163.911 179.977 1.00 57.60 C
ATOM 4445 N GLU A 665 131.454 162.066 184.731 1.00 63.50 N
ATOM 4446 CA GLU A 665 131.207 162.390 186.131 1.00 63.50 C
ATOM 4447 C GLU A 665 132.510 162.472 186.910 1.00 63.50 C
ATOM 4448 O GLU A 665 132.672 163.343 187.772 1.00 63.50 O
ATOM 4449 CB GLU A 665 130.278 161.353 186.756 1.00 63.50 C
ATOM 4450 CG GLU A 665 128.893 161.324 186.149 1.00 63.50 C
ATOM 4451 CD GLU A 665 128.017 160.254 186.760 1.00 63.50 C

ATOM 4452 OE1 GLU A 665 128.562 159.236 187.234 1.00 63.50 O
ATOM 4453 OE2 GLU A 665 126.782 160.431 186.769 1.00 63.50 O
ATOM 4454 N LEU A 666 133.452 161.573 186.623 1.00 66.79 N
ATOM 4455 CA LEU A 666 134.747 161.628 187.293 1.00 66.79 C
ATOM 4456 C LEU A 666 135.457 162.949 187.035 1.00 66.79 C
ATOM 4457 O LEU A 666 136.091 163.498 187.940 1.00 66.79 O
ATOM 4458 CB LEU A 666 135.617 160.460 186.836 1.00 66.79 C
ATOM 4459 CG LEU A 666 136.953 160.254 187.545 1.00 66.79 C
ATOM 4460 CD1 LEU A 666 137.348 158.793 187.486 1.00 66.79 C
ATOM 4461 CD2 LEU A 666 138.027 161.116 186.917 1.00 66.79 C
ATOM 4462 N TYR A 667 135.362 163.471 185.815 1.00 64.73 N
ATOM 4463 CA TYR A 667 135.995 164.735 185.465 1.00 64.73 C
ATOM 4464 C TYR A 667 135.173 165.949 185.869 1.00 64.73 C
ATOM 4465 O TYR A 667 135.703 167.064 185.866 1.00 64.73 O
ATOM 4466 CB TYR A 667 136.253 164.803 183.958 1.00 64.73 C
ATOM 4467 CG TYR A 667 137.396 163.948 183.472 1.00 64.73 C
ATOM 4468 CD1 TYR A 667 138.645 164.023 184.062 1.00 64.73 C
ATOM 4469 CD2 TYR A 667 137.228 163.075 182.411 1.00 64.73 C
ATOM 4470 CE1 TYR A 667 139.690 163.247 183.612 1.00 64.73 C
ATOM 4471 CE2 TYR A 667 138.266 162.295 181.957 1.00 64.73 C
ATOM 4472 CZ TYR A 667 139.495 162.386 182.560 1.00 64.73 C
ATOM 4473 OH TYR A 667 140.533 161.611 182.108 1.00 64.73 O
ATOM 4474 N SER A 668 133.892 165.765 186.195 1.00 71.63 N
ATOM 4475 CA SER A 668 133.052 166.897 186.575 1.00 71.63 C
ATOM 4476 C SER A 668 133.612 167.604 187.801 1.00 71.63 C
ATOM 4477 O SER A 668 133.983 168.781 187.744 1.00 71.63 O
ATOM 4478 CB SER A 668 131.623 166.423 186.835 1.00 71.63 C
ATOM 4479 OG SER A 668 131.462 166.030 188.186 1.00 71.63 O
ATOM 4480 N GLN A 669 133.674 166.895 188.929 1.00 78.96 N
ATOM 4481 CA GLN A 669 134.252 167.435 190.158 1.00 78.96 C
ATOM 4482 C GLN A 669 135.771 167.403 190.021 1.00 78.96 C
ATOM 4483 O GLN A 669 136.467 166.552 190.578 1.00 78.96 O
ATOM 4484 CB GLN A 669 133.772 166.648 191.371 1.00 78.96 C
ATOM 4485 CG GLN A 669 133.763 165.137 191.187 1.00 78.96 C

ATOM 4486 CD GLN A 669 134.999 164.467 191.751 1.00 78.96 C
ATOM 4487 OE1 GLN A 669 135.727 165.053 192.549 1.00 78.96 O
ATOM 4488 NE2 GLN A 669 135.237 163.227 191.345 1.00 78.96 N
ATOM 4489 N LYS A 670 136.294 168.359 189.257 1.00 81.07 N
ATOM 4490 CA LYS A 670 137.711 168.374 188.899 1.00 81.07 C
ATOM 4491 C LYS A 670 138.370 169.633 189.448 1.00 81.07 C
ATOM 4492 O LYS A 670 138.510 170.644 188.758 1.00 81.07 O
ATOM 4493 CB LYS A 670 137.895 168.261 187.388 1.00 81.07 C
ATOM 4494 CG LYS A 670 139.324 167.956 186.971 1.00 81.07 C
ATOM 4495 CD LYS A 670 139.965 166.904 187.868 1.00 81.07 C
ATOM 4496 CE LYS A 670 139.019 165.744 188.154 1.00 81.07 C
ATOM 4497 NZ LYS A 670 139.508 164.876 189.261 1.00 81.07 N
ATOM 4498 N GLU A 671 138.775 169.556 190.710 1.00 92.28 N
ATOM 4499 CA GLU A 671 139.825 170.402 191.254 1.00 92.28 C
ATOM 4500 C GLU A 671 140.824 169.617 192.086 1.00 92.28 C
ATOM 4501 O GLU A 671 141.967 170.069 192.234 1.00 92.28 O
ATOM 4502 CB GLU A 671 139.231 171.543 192.094 1.00 92.28 C
ATOM 4503 CG GLU A 671 138.857 172.768 191.265 1.00 92.28 C
ATOM 4504 CD GLU A 671 138.060 173.794 192.046 1.00 92.28 C
ATOM 4505 OE1 GLU A 671 138.672 174.557 192.822 1.00 92.28 O
ATOM 4506 OE2 GLU A 671 136.824 173.847 191.874 1.00 92.28 O
ATOM 4507 N LEU A 672 140.437 168.464 192.625 1.00 90.54 N
ATOM 4508 CA LEU A 672 141.372 167.442 193.085 1.00 90.54 C
ATOM 4509 C LEU A 672 141.711 166.591 191.867 1.00 90.54 C
ATOM 4510 O LEU A 672 140.909 165.765 191.427 1.00 90.54 O
ATOM 4511 CB LEU A 672 140.764 166.614 194.213 1.00 90.54 C
ATOM 4512 CG LEU A 672 139.636 165.638 193.859 1.00 90.54 C
ATOM 4513 CD1 LEU A 672 139.411 164.636 194.979 1.00 90.54 C
ATOM 4514 CD2 LEU A 672 138.352 166.388 193.545 1.00 90.54 C
ATOM 4515 N ARG A 673 142.901 166.797 191.309 1.00 82.28 N
ATOM 4516 CA ARG A 673 143.214 166.220 190.009 1.00 82.28 C
ATOM 4517 C ARG A 673 143.437 164.716 190.094 1.00 82.28 C
ATOM 4518 O ARG A 673 144.560 164.233 189.921 1.00 82.28 O
ATOM 4519 CB ARG A 673 144.435 166.907 189.400 1.00 82.28 C

ATOM 4520 CG ARG A 673 145.695 166.794 190.228 1.00 82.28 C
ATOM 4521 CD ARG A 673 146.700 167.833 189.788 1.00 82.28 C
ATOM 4522 NE ARG A 673 146.105 169.163 189.748 1.00 82.28 N
ATOM 4523 CZ ARG A 673 146.710 170.232 189.247 1.00 82.28 C
ATOM 4524 NH1 ARG A 673 147.928 170.125 188.738 1.00 82.28 N
ATOM 4525 NH2 ARG A 673 146.096 171.406 189.251 1.00 82.28 N
ATOM 4526 N SER A 674 142.362 163.970 190.356 1.00 81.50 N
ATOM 4527 CA SER A 674 142.347 162.521 190.207 1.00 81.50 C
ATOM 4528 C SER A 674 141.992 162.105 188.790 1.00 81.50 C
ATOM 4529 O SER A 674 141.492 160.993 188.573 1.00 81.50 O
ATOM 4530 CB SER A 674 141.373 161.893 191.204 1.00 81.50 C
ATOM 4531 OG SER A 674 140.034 162.239 190.896 1.00 81.50 O
ATOM 4532 N SER A 675 142.235 162.985 187.820 1.00 71.50 N
ATOM 4533 CA SER A 675 141.689 162.807 186.481 1.00 71.50 C
ATOM 4534 C SER A 675 142.216 161.541 185.819 1.00 71.50 C
ATOM 4535 O SER A 675 141.431 160.697 185.371 1.00 71.50 O
ATOM 4536 CB SER A 675 142.007 164.034 185.628 1.00 71.50 C
ATOM 4537 OG SER A 675 141.456 165.209 186.194 1.00 71.50 O
ATOM 4538 N ASN A 676 143.538 161.394 185.740 1.00 69.14 N
ATOM 4539 CA ASN A 676 144.148 160.331 184.949 1.00 69.14 C
ATOM 4540 C ASN A 676 143.383 159.025 185.105 1.00 69.14 C
ATOM 4541 O ASN A 676 143.166 158.546 186.221 1.00 69.14 O
ATOM 4542 CB ASN A 676 145.607 160.132 185.364 1.00 69.14 C
ATOM 4543 CG ASN A 676 146.388 159.300 184.362 1.00 69.14 C
ATOM 4544 OD1 ASN A 676 146.636 159.735 183.238 1.00 69.14 O
ATOM 4545 ND2 ASN A 676 146.771 158.091 184.763 1.00 69.14 N
ATOM 4546 N VAL A 677 142.805 158.585 184.003 1.00 66.21 N
ATOM 4547 CA VAL A 677 142.010 157.398 184.022 1.00 66.21 C
ATOM 4548 C VAL A 677 142.721 156.239 183.380 1.00 66.21 C
ATOM 4549 O VAL A 677 143.085 155.314 184.078 1.00 66.21 O
ATOM 4550 CB VAL A 677 140.665 157.619 183.330 1.00 66.21 C
ATOM 4551 CG1 VAL A 677 139.617 158.020 184.346 1.00 66.21 C
ATOM 4552 CG2 VAL A 677 140.795 158.681 182.263 1.00 66.21 C
ATOM 4553 N PHE A 678 142.996 156.298 182.084 1.00 59.19 N

ATOM 4554 CA PHE A 678 143.587 155.123 181.494 1.00 59.19 C
ATOM 4555 C PHE A 678 144.655 155.126 180.407 1.00 59.19 C
ATOM 4556 O PHE A 678 145.379 154.137 180.337 1.00 59.19 O
ATOM 4557 CB PHE A 678 142.453 154.265 180.997 1.00 59.19 C
ATOM 4558 CG PHE A 678 142.105 153.159 181.910 1.00 59.19 C
ATOM 4559 CD1 PHE A 678 143.077 152.479 182.564 1.00 59.19 C
ATOM 4560 CD2 PHE A 678 140.807 152.822 182.121 1.00 59.19 C
ATOM 4561 CE1 PHE A 678 142.764 151.455 183.416 1.00 59.19 C
ATOM 4562 CE2 PHE A 678 140.477 151.803 182.966 1.00 59.19 C
ATOM 4563 CZ PHE A 678 141.460 151.113 183.622 1.00 59.19 C
ATOM 4564 N ASP A 679 144.781 156.194 179.614 1.00 58.15 N
ATOM 4565 CA ASP A 679 145.689 156.253 178.451 1.00 58.15 C
ATOM 4566 C ASP A 679 145.403 155.022 177.651 1.00 58.15 C
ATOM 4567 O ASP A 679 146.281 154.199 177.448 1.00 58.15 O
ATOM 4568 CB ASP A 679 147.166 156.286 178.786 1.00 58.15 C
ATOM 4569 CG ASP A 679 147.440 157.103 179.935 1.00 58.15 C
ATOM 4570 OD1 ASP A 679 146.659 158.029 180.157 1.00 58.15 O
ATOM 4571 OD2 ASP A 679 148.420 156.821 180.625 1.00 58.15 O
ATOM 4572 N LEU A 680 144.171 154.928 177.154 1.00 57.21 N
ATOM 4573 CA LEU A 680 143.680 153.741 176.450 1.00 57.21 C
ATOM 4574 C LEU A 680 144.601 153.030 175.503 1.00 57.21 C
ATOM 4575 O LEU A 680 144.648 151.810 175.552 1.00 57.21 O
ATOM 4576 CB LEU A 680 142.253 153.873 175.961 1.00 57.21 C
ATOM 4577 CG LEU A 680 141.532 153.277 177.159 1.00 57.21 C
ATOM 4578 CD1 LEU A 680 140.249 153.973 177.537 1.00 57.21 C
ATOM 4579 CD2 LEU A 680 141.381 151.779 177.095 1.00 57.21 C
ATOM 4580 N GLU A 681 145.335 153.765 174.677 1.00 59.13 N
ATOM 4581 CA GLU A 681 146.337 153.137 173.842 1.00 59.13 C
ATOM 4582 C GLU A 681 147.432 154.097 173.435 1.00 59.13 C
ATOM 4583 O GLU A 681 148.596 153.866 173.742 1.00 59.13 O
ATOM 4584 CB GLU A 681 145.763 152.414 172.612 1.00 59.13 C
ATOM 4585 CG GLU A 681 146.437 151.065 172.331 1.00 59.13 C
ATOM 4586 CD GLU A 681 146.130 149.979 173.365 1.00 59.13 C
ATOM 4587 OE1 GLU A 681 144.956 149.585 173.510 1.00 59.13 O

ATOM 4588 OE2 GLU A 681 147.067 149.498 174.035 1.00 59.13 O
ATOM 4589 N GLU A 682 147.040 155.172 172.773 1.00 56.52 N
ATOM 4590 CA GLU A 682 147.966 156.136 172.223 1.00 56.52 C
ATOM 4591 C GLU A 682 149.127 156.552 173.074 1.00 56.52 C
ATOM 4592 O GLU A 682 148.950 156.866 174.218 1.00 56.52 O
ATOM 4593 CB GLU A 682 147.213 157.373 171.778 1.00 56.52 C
ATOM 4594 CG GLU A 682 146.165 157.852 172.747 1.00 56.52 C
ATOM 4595 CD GLU A 682 145.283 158.916 172.133 1.00 56.52 C
ATOM 4596 OE1 GLU A 682 144.123 158.606 171.793 1.00 56.52 O
ATOM 4597 OE2 GLU A 682 145.750 160.058 171.978 1.00 56.52 O
ATOM 4598 N ILE A 683 150.328 156.489 172.519 1.00 55.18 N
ATOM 4599 CA ILE A 683 151.474 156.962 173.279 1.00 55.18 C
ATOM 4600 C ILE A 683 151.458 158.483 173.273 1.00 55.18 C
ATOM 4601 O ILE A 683 152.149 159.129 174.056 1.00 55.18 O
ATOM 4602 CB ILE A 683 152.805 156.451 172.696 1.00 55.18 C
ATOM 4603 CG1 ILE A 683 152.555 155.382 171.635 1.00 55.18 C
ATOM 4604 CG2 ILE A 683 153.685 155.885 173.798 1.00 55.18 C
ATOM 4605 CD1 ILE A 683 153.711 154.423 171.460 1.00 55.18 C
ATOM 4606 N MET A 684 150.662 159.049 172.373 1.00 57.49 N
ATOM 4607 CA MET A 684 150.518 160.499 172.269 1.00 57.49 C
ATOM 4608 C MET A 684 150.059 161.118 173.581 1.00 57.49 C
ATOM 4609 O MET A 684 150.697 162.036 174.104 1.00 57.49 O
ATOM 4610 CB MET A 684 149.543 160.851 171.147 1.00 57.49 C
ATOM 4611 CG MET A 684 149.333 162.341 170.962 1.00 57.49 C
ATOM 4612 SD MET A 684 150.847 163.197 170.501 1.00 57.49 S
ATOM 4613 CE MET A 684 150.188 164.760 169.931 1.00 57.49 C
ATOM 4614 N ARG A 685 148.948 160.629 174.130 1.00 57.53 N
ATOM 4615 CA ARG A 685 148.418 161.124 175.391 1.00 57.53 C
ATOM 4616 C ARG A 685 149.053 160.444 176.590 1.00 57.53 C
ATOM 4617 O ARG A 685 148.456 160.424 177.670 1.00 57.53 O
ATOM 4618 CB ARG A 685 146.900 160.951 175.437 1.00 57.53 C
ATOM 4619 CG ARG A 685 146.181 162.007 176.266 1.00 57.53 C
ATOM 4620 CD ARG A 685 146.346 163.410 175.679 1.00 57.53 C
ATOM 4621 NE ARG A 685 146.007 163.472 174.259 1.00 57.53 N

ATOM 4622 CZ ARG A 685 146.402 164.440 173.436 1.00 57.53 C
ATOM 4623 NH1 ARG A 685 147.152 165.435 173.887 1.00 57.53 N
ATOM 4624 NH2 ARG A 685 146.047 164.414 172.160 1.00 57.53 N
ATOM 4625 N GLU A 686 150.245 159.879 176.419 1.00 56.76 N
ATOM 4626 CA GLU A 686 150.974 159.240 177.500 1.00 56.76 C
ATOM 4627 C GLU A 686 152.324 159.888 177.759 1.00 56.76 C
ATOM 4628 O GLU A 686 152.992 159.522 178.730 1.00 56.76 O
ATOM 4629 CB GLU A 686 151.156 157.746 177.205 1.00 56.76 C
ATOM 4630 CG GLU A 686 152.003 157.013 178.208 1.00 56.76 C
ATOM 4631 CD GLU A 686 153.438 156.918 177.766 1.00 56.76 C
ATOM 4632 OE1 GLU A 686 153.667 156.760 176.552 1.00 56.76 O
ATOM 4633 OE2 GLU A 686 154.337 157.023 178.622 1.00 56.76 O
ATOM 4634 N PHE A 687 152.749 160.838 176.927 1.00 56.69 N
ATOM 4635 CA PHE A 687 153.873 161.697 177.273 1.00 56.69 C
ATOM 4636 C PHE A 687 153.428 163.138 177.468 1.00 56.69 C
ATOM 4637 O PHE A 687 154.273 164.036 177.540 1.00 56.69 O
ATOM 4638 CB PHE A 687 154.989 161.611 176.228 1.00 56.69 C
ATOM 4639 CG PHE A 687 154.649 162.223 174.904 1.00 56.69 C
ATOM 4640 CD1 PHE A 687 153.993 161.489 173.936 1.00 56.69 C
ATOM 4641 CD2 PHE A 687 155.035 163.517 174.609 1.00 56.69 C
ATOM 4642 CE1 PHE A 687 153.696 162.046 172.707 1.00 56.69 C
ATOM 4643 CE2 PHE A 687 154.743 164.078 173.384 1.00 56.69 C
ATOM 4644 CZ PHE A 687 154.074 163.343 172.432 1.00 56.69 C
ATOM 4645 N ASN A 688 152.121 163.376 177.539 1.00 54.26 N
ATOM 4646 CA ASN A 688 151.582 164.599 178.110 1.00 54.26 C
ATOM 4647 C ASN A 688 151.437 164.509 179.620 1.00 54.26 C
ATOM 4648 O ASN A 688 151.273 165.540 180.279 1.00 54.26 O
ATOM 4649 CB ASN A 688 150.218 164.917 177.496 1.00 54.26 C
ATOM 4650 CG ASN A 688 150.308 165.906 176.359 1.00 54.26 C
ATOM 4651 OD1 ASN A 688 151.076 166.864 176.417 1.00 54.26 O
ATOM 4652 ND2 ASN A 688 149.521 165.683 175.316 1.00 54.26 N
ATOM 4653 N SER A 689 151.494 163.298 180.176 1.00 54.91 N
ATOM 4654 CA SER A 689 151.328 163.068 181.602 1.00 54.91 C
ATOM 4655 C SER A 689 152.616 162.673 182.310 1.00 54.91 C

ATOM 4656 O SER A 689 152.635 162.638 183.543 1.00 54.91 O
ATOM 4657 CB SER A 689 150.285 161.972 181.841 1.00 54.91 C
ATOM 4658 OG SER A 689 148.994 162.397 181.449 1.00 54.91 O
ATOM 4659 N TYR A 690 153.683 162.372 181.572 1.00 55.06 N
ATOM 4660 CA TYR A 690 154.879 161.817 182.198 1.00 55.06 C
ATOM 4661 C TYR A 690 155.507 162.798 183.182 1.00 55.06 C
ATOM 4662 O TYR A 690 155.928 162.406 184.280 1.00 55.06 O
ATOM 4663 CB TYR A 690 155.884 161.412 181.124 1.00 55.06 C
ATOM 4664 CG TYR A 690 157.007 160.551 181.639 1.00 55.06 C
ATOM 4665 CD1 TYR A 690 156.772 159.262 182.078 1.00 55.06 C
ATOM 4666 CD2 TYR A 690 158.304 161.029 181.683 1.00 55.06 C
ATOM 4667 CE1 TYR A 690 157.796 158.476 182.549 1.00 55.06 C
ATOM 4668 CE2 TYR A 690 159.333 160.250 182.151 1.00 55.06 C
ATOM 4669 CZ TYR A 690 159.074 158.976 182.582 1.00 55.06 C
ATOM 4670 OH TYR A 690 160.102 158.197 183.050 1.00 55.06 O
ATOM 4671 N LYS A 691 155.584 164.075 182.809 1.00 55.14 N
ATOM 4672 CA LYS A 691 156.193 165.076 183.676 1.00 55.14 C
ATOM 4673 C LYS A 691 155.390 165.333 184.938 1.00 55.14 C
ATOM 4674 O LYS A 691 155.815 166.147 185.761 1.00 55.14 O
ATOM 4675 CB LYS A 691 156.379 166.385 182.917 1.00 55.14 C
ATOM 4676 CG LYS A 691 157.390 166.309 181.803 1.00 55.14 C
ATOM 4677 CD LYS A 691 157.227 167.476 180.854 1.00 55.14 C
ATOM 4678 CE LYS A 691 155.800 167.585 180.355 1.00 55.14 C
ATOM 4679 NZ LYS A 691 155.350 166.325 179.711 1.00 55.14 N
ATOM 4680 N GLN A 692 154.248 164.673 185.107 1.00 59.71 N
ATOM 4681 CA GLN A 692 153.489 164.753 186.346 1.00 59.71 C
ATOM 4682 C GLN A 692 153.834 163.609 187.292 1.00 59.71 C
ATOM 4683 O GLN A 692 153.959 163.821 188.502 1.00 59.71 O
ATOM 4684 CB GLN A 692 151.994 164.754 186.039 1.00 59.71 C
ATOM 4685 CG GLN A 692 151.125 165.033 187.237 1.00 59.71 C
ATOM 4686 CD GLN A 692 149.798 164.313 187.163 1.00 59.71 C
ATOM 4687 OE1 GLN A 692 149.534 163.575 186.214 1.00 59.71 O
ATOM 4688 NE2 GLN A 692 148.953 164.521 188.167 1.00 59.71 N
ATOM 4689 N ARG A 693 153.997 162.396 186.763 1.00 59.66 N

ATOM 4690 CA ARG A 693 154.506 161.302 187.581 1.00 59.66 C
ATOM 4691 C ARG A 693 155.942 161.564 188.006 1.00 59.66 C
ATOM 4692 O ARG A 693 156.352 161.187 189.111 1.00 59.66 O
ATOM 4693 CB ARG A 693 154.417 159.984 186.818 1.00 59.66 C
ATOM 4694 CG ARG A 693 153.096 159.754 186.135 1.00 59.66 C
ATOM 4695 CD ARG A 693 152.026 159.404 187.137 1.00 59.66 C
ATOM 4696 NE ARG A 693 150.695 159.619 186.585 1.00 59.66 N
ATOM 4697 CZ ARG A 693 149.580 159.595 187.303 1.00 59.66 C
ATOM 4698 NH1 ARG A 693 149.633 159.364 188.607 1.00 59.66 N
ATOM 4699 NH2 ARG A 693 148.412 159.803 186.716 1.00 59.66 N
ATOM 4700 N VAL A 694 156.727 162.203 187.139 1.00 59.74 N
ATOM 4701 CA VAL A 694 158.124 162.485 187.448 1.00 59.74 C
ATOM 4702 C VAL A 694 158.221 163.282 188.742 1.00 59.74 C
ATOM 4703 O VAL A 694 159.261 163.274 189.408 1.00 59.74 O
ATOM 4704 CB VAL A 694 158.815 163.229 186.291 1.00 59.74 C
ATOM 4705 CG1 VAL A 694 160.239 163.576 186.663 1.00 59.74 C
ATOM 4706 CG2 VAL A 694 158.805 162.380 185.040 1.00 59.74 C
ATOM 4707 N LYS A 695 157.142 163.971 189.114 1.00 63.20 N
ATOM 4708 CA LYS A 695 157.104 164.736 190.354 1.00 63.20 C
ATOM 4709 C LYS A 695 156.288 164.075 191.450 1.00 63.20 C
ATOM 4710 O LYS A 695 156.622 164.229 192.626 1.00 63.20 O
ATOM 4711 CB LYS A 695 156.542 166.139 190.106 1.00 63.20 C
ATOM 4712 CG LYS A 695 156.712 167.076 191.286 1.00 63.20 C
ATOM 4713 CD LYS A 695 155.499 167.054 192.201 1.00 63.20 C
ATOM 4714 CE LYS A 695 154.303 167.732 191.556 1.00 63.20 C
ATOM 4715 NZ LYS A 695 153.142 167.807 192.484 1.00 63.20 N
ATOM 4716 N TYR A 696 155.208 163.378 191.098 1.00 67.56 N
ATOM 4717 CA TYR A 696 154.541 162.516 192.067 1.00 67.56 C
ATOM 4718 C TYR A 696 155.558 161.657 192.801 1.00 67.56 C
ATOM 4719 O TYR A 696 155.565 161.591 194.034 1.00 67.56 O
ATOM 4720 CB TYR A 696 153.513 161.628 191.367 1.00 67.56 C
ATOM 4721 CG TYR A 696 152.136 162.224 191.255 1.00 67.56 C
ATOM 4722 CD1 TYR A 696 151.934 163.583 191.410 1.00 67.56 C
ATOM 4723 CD2 TYR A 696 151.036 161.423 190.992 1.00 67.56 C

ATOM 4724 CE1 TYR A 696 150.675 164.130 191.305 1.00 67.56 C
ATOM 4725 CE2 TYR A 696 149.775 161.958 190.886 1.00 67.56 C
ATOM 4726 CZ TYR A 696 149.599 163.314 191.044 1.00 67.56 C
ATOM 4727 OH TYR A 696 148.343 163.866 190.942 1.00 67.56 O
ATOM 4728 N VAL A 697 156.436 160.990 192.048 1.00 69.28 N
ATOM 4729 CA VAL A 697 157.419 160.093 192.642 1.00 69.28 C
ATOM 4730 C VAL A 697 158.462 160.818 193.475 1.00 69.28 C
ATOM 4731 O VAL A 697 159.167 160.174 194.257 1.00 69.28 O
ATOM 4732 CB VAL A 697 158.122 159.266 191.548 1.00 69.28 C
ATOM 4733 CG1 VAL A 697 159.125 158.316 192.165 1.00 69.28 C
ATOM 4734 CG2 VAL A 697 157.102 158.503 190.734 1.00 69.28 C
ATOM 4735 N GLU A 698 158.582 162.136 193.336 1.00 73.64 N
ATOM 4736 CA GLU A 698 159.556 162.890 194.114 1.00 73.64 C
ATOM 4737 C GLU A 698 158.971 163.512 195.369 1.00 73.64 C
ATOM 4738 O GLU A 698 159.669 163.602 196.382 1.00 73.64 O
ATOM 4739 CB GLU A 698 160.186 163.998 193.268 1.00 73.64 C
ATOM 4740 CG GLU A 698 160.891 165.052 194.098 1.00 73.64 C
ATOM 4741 CD GLU A 698 161.722 165.999 193.260 1.00 73.64 C
ATOM 4742 OE1 GLU A 698 161.824 165.778 192.036 1.00 73.64 O
ATOM 4743 OE2 GLU A 698 162.276 166.963 193.827 1.00 73.64 O
ATOM 4744 N ASP A 699 157.714 163.950 195.332 1.00 75.05 N
ATOM 4745 CA ASP A 699 157.077 164.429 196.552 1.00 75.05 C
ATOM 4746 C ASP A 699 156.832 163.311 197.554 1.00 75.05 C
ATOM 4747 O ASP A 699 156.530 163.600 198.715 1.00 75.05 O
ATOM 4748 CB ASP A 699 155.758 165.126 196.228 1.00 75.05 C
ATOM 4749 CG ASP A 699 155.218 165.919 197.399 1.00 75.05 C
ATOM 4750 OD1 ASP A 699 154.504 165.333 198.240 1.00 75.05 O
ATOM 4751 OD2 ASP A 699 155.511 167.128 197.483 1.00 75.05 O
ATOM 4752 N LYS A 700 156.948 162.052 197.133 1.00 76.59 N
ATOM 4753 CA LYS A 700 156.806 160.908 198.021 1.00 76.59 C
ATOM 4754 C LYS A 700 158.142 160.337 198.464 1.00 76.59 C
ATOM 4755 O LYS A 700 158.175 159.546 199.410 1.00 76.59 O
ATOM 4756 CB LYS A 700 155.998 159.797 197.341 1.00 76.59 C
ATOM 4757 CG LYS A 700 154.502 160.052 197.251 1.00 76.59 C

ATOM 4758 CD LYS A 700 154.196 161.394 196.600 1.00 76.59 C
ATOM 4759 CE LYS A 700 152.870 161.371 195.858 1.00 76.59 C
ATOM 4760 NZ LYS A 700 152.479 162.720 195.361 1.00 76.59 N
ATOM 4761 N VAL A 701 159.230 160.702 197.796 1.00 78.43 N
ATOM 4762 CA VAL A 701 160.560 160.236 198.153 1.00 78.43 C
ATOM 4763 C VAL A 701 161.272 161.238 199.061 1.00 78.43 C
ATOM 4764 O VAL A 701 162.479 161.138 199.269 1.00 78.43 O
ATOM 4765 CB VAL A 701 161.397 159.924 196.903 1.00 78.43 C
ATOM 4766 CG1 VAL A 701 161.685 161.196 196.129 1.00 78.43 C
ATOM 4767 CG2 VAL A 701 162.689 159.240 197.287 1.00 78.43 C
ATOM 4768 N VAL A 702 160.542 162.207 199.601 1.00 80.83 N
ATOM 4769 CA VAL A 702 161.105 163.144 200.560 1.00 80.83 C
ATOM 4770 C VAL A 702 160.640 162.870 201.982 1.00 80.83 C
ATOM 4771 O VAL A 702 161.368 163.211 202.927 1.00 80.83 O
ATOM 4772 CB VAL A 702 160.787 164.601 200.169 1.00 80.83 C
ATOM 4773 CG1 VAL A 702 161.375 165.558 201.188 1.00 80.83 C
ATOM 4774 CG2 VAL A 702 161.318 164.902 198.781 1.00 80.83 C
ATOM 4775 N ASP A 703 159.464 162.282 202.171 1.00 85.56 N
ATOM 4776 CA ASP A 703 159.000 161.926 203.504 1.00 85.56 C
ATOM 4777 C ASP A 703 159.714 160.671 203.996 1.00 85.56 C
ATOM 4778 O ASP A 703 160.390 160.710 205.031 1.00 85.56 O
ATOM 4779 CB ASP A 703 157.485 161.725 203.503 1.00 85.56 C
ATOM 4780 CG ASP A 703 156.753 162.841 202.787 1.00 85.56 C
ATOM 4781 OD1 ASP A 703 157.349 163.923 202.612 1.00 85.56 O
ATOM 4782 OD2 ASP A 703 155.585 162.639 202.399 1.00 85.56 O
ATOM 4783 N PRO A 704 159.597 159.543 203.287 1.00 87.45 N
ATOM 4784 CA PRO A 704 160.251 158.312 203.751 1.00 87.45 C
ATOM 4785 C PRO A 704 161.765 158.417 203.757 1.00 87.45 C
ATOM 4786 O PRO A 704 162.407 158.126 204.770 1.00 87.45 O
ATOM 4787 CB PRO A 704 159.773 157.259 202.742 1.00 87.45 C
ATOM 4788 CG PRO A 704 158.511 157.807 202.197 1.00 87.45 C
ATOM 4789 CD PRO A 704 158.724 159.289 202.132 1.00 87.45 C
ATOM 4790 N LEU A 705 162.343 158.830 202.631 1.00 92.73 N
ATOM 4791 CA LEU A 705 163.792 158.923 202.509 1.00 92.73 C

ATOM 4792 C LEU A 705 164.341 159.784 203.637 1.00 92.73 C
ATOM 4793 O LEU A 705 163.576 160.495 204.301 1.00 92.73 O
ATOM 4794 CB LEU A 705 164.191 159.476 201.142 1.00 92.73 C
ATOM 4795 CG LEU A 705 164.336 158.402 200.064 1.00 92.73 C
ATOM 4796 CD1 LEU A 705 165.495 157.486 200.402 1.00 92.73 C
ATOM 4797 CD2 LEU A 705 163.054 157.600 199.930 1.00 92.73 C
ATOM 4798 N PRO A 706 165.649 159.759 203.874 1.00101.21 N
ATOM 4799 CA PRO A 706 166.182 160.192 205.170 1.00101.21 C
ATOM 4800 C PRO A 706 165.687 161.574 205.553 1.00101.21 C
ATOM 4801 O PRO A 706 166.061 162.579 204.931 1.00101.21 O
ATOM 4802 CB PRO A 706 167.704 160.188 204.947 1.00101.21 C
ATOM 4803 CG PRO A 706 167.881 160.213 203.463 1.00101.21 C
ATOM 4804 CD PRO A 706 166.721 159.448 202.915 1.00101.21 C
ATOM 4805 N PRO A 707 164.842 161.661 206.576 1.00101.72 N
ATOM 4806 CA PRO A 707 164.608 162.949 207.234 1.00101.72 C
ATOM 4807 C PRO A 707 165.796 163.293 208.112 1.00101.72 C
ATOM 4808 O PRO A 707 166.815 162.597 208.070 1.00101.72 O
ATOM 4809 CB PRO A 707 163.332 162.709 208.053 1.00101.72 C
ATOM 4810 CG PRO A 707 162.753 161.424 207.519 1.00101.72 C
ATOM 4811 CD PRO A 707 163.933 160.623 207.079 1.00101.72 C
ATOM 4812 N TYR A 708 165.694 164.354 208.903 1.00105.59 N
ATOM 4813 CA TYR A 708 166.825 164.798 209.701 1.00105.59 C
ATOM 4814 C TYR A 708 166.375 165.170 211.102 1.00105.59 C
ATOM 4815 O TYR A 708 165.388 165.889 211.275 1.00105.59 O
ATOM 4816 CB TYR A 708 167.509 166.003 209.057 1.00105.59 C
ATOM 4817 CG TYR A 708 166.581 167.178 208.869 1.00105.59 C
ATOM 4818 CD1 TYR A 708 165.755 167.263 207.760 1.00105.59 C
ATOM 4819 CD2 TYR A 708 166.521 168.195 209.808 1.00105.59 C
ATOM 4820 CE1 TYR A 708 164.905 168.332 207.587 1.00105.59 C
ATOM 4821 CE2 TYR A 708 165.674 169.266 209.644 1.00105.59 C
ATOM 4822 CZ TYR A 708 164.868 169.330 208.532 1.00105.59 C
ATOM 4823 OH TYR A 708 164.019 170.397 208.359 1.00105.59 O
ATOM 4824 N LEU A 709 167.113 164.680 212.096 1.00105.14 N
ATOM 4825 CA LEU A 709 167.059 165.267 213.427 1.00105.14 C

ATOM 4826 C LEU A 709 165.624 165.375 213.928 1.00105.14 C
ATOM 4827 O LEU A 709 165.109 166.482 214.112 1.00105.14 O
ATOM 4828 CB LEU A 709 167.737 166.635 213.392 1.00105.14 C
ATOM 4829 CG LEU A 709 169.061 166.581 212.623 1.00105.14 C
ATOM 4830 CD1 LEU A 709 169.769 167.922 212.603 1.00105.14 C
ATOM 4831 CD2 LEU A 709 169.953 165.520 213.222 1.00105.14 C
ATOM 4832 N LYS A 710 164.979 164.224 214.139 1.00107.58 N
ATOM 4833 CA LYS A 710 163.547 164.135 214.410 1.00107.58 C
ATOM 4834 C LYS A 710 162.997 165.350 215.154 1.00107.58 C
ATOM 4835 O LYS A 710 162.037 165.987 214.707 1.00107.58 O
ATOM 4836 CB LYS A 710 163.273 162.854 215.211 1.00107.58 C
ATOM 4837 CG LYS A 710 163.917 161.598 214.626 1.00107.58 C
ATOM 4838 CD LYS A 710 163.287 161.204 213.301 1.00107.58 C
ATOM 4839 CE LYS A 710 164.322 160.669 212.326 1.00107.58 C
ATOM 4840 NZ LYS A 710 163.798 160.679 210.933 1.00107.58 N
ATOM 4841 N GLY A 711 163.601 165.687 216.292 1.00103.26 N
ATOM 4842 CA GLY A 711 163.141 166.808 217.085 1.00103.26 C
ATOM 4843 C GLY A 711 163.840 168.115 216.774 1.00103.26 C
ATOM 4844 O GLY A 711 164.298 168.805 217.688 1.00103.26 O
ATOM 4845 N LEU A 712 163.934 168.465 215.491 1.00 99.05 N
ATOM 4846 CA LEU A 712 164.539 169.727 215.072 1.00 99.05 C
ATOM 4847 C LEU A 712 163.675 170.547 214.130 1.00 99.05 C
ATOM 4848 O LEU A 712 163.885 171.761 214.035 1.00 99.05 O
ATOM 4849 CB LEU A 712 165.892 169.477 214.391 1.00 99.05 C
ATOM 4850 CG LEU A 712 166.498 170.677 213.668 1.00 99.05 C
ATOM 4851 CD1 LEU A 712 166.660 171.831 214.632 1.00 99.05 C
ATOM 4852 CD2 LEU A 712 167.826 170.315 213.043 1.00 99.05 C
ATOM 4853 N ASP A 713 162.719 169.935 213.430 1.00101.08 N
ATOM 4854 CA ASP A 713 161.885 170.682 212.496 1.00101.08 C
ATOM 4855 C ASP A 713 161.140 171.819 213.184 1.00101.08 C
ATOM 4856 O ASP A 713 160.773 172.805 212.531 1.00101.08 O
ATOM 4857 CB ASP A 713 160.907 169.732 211.806 1.00101.08 C
ATOM 4858 CG ASP A 713 160.082 170.414 210.746 1.00101.08 C
ATOM 4859 OD1 ASP A 713 159.201 171.218 211.108 1.00101.08 O

ATOM 4860 OD2 ASP A 713 160.307 170.146 209.547 1.00101.08 O
ATOM 4861 N ASP A 714 160.909 171.713 214.494 1.00102.95 N
ATOM 4862 CA ASP A 714 160.180 172.771 215.186 1.00102.95 C
ATOM 4863 C ASP A 714 160.995 174.055 215.250 1.00102.95 C
ATOM 4864 O ASP A 714 160.462 175.146 215.023 1.00102.95 O
ATOM 4865 CB ASP A 714 159.784 172.318 216.588 1.00102.95 C
ATOM 4866 CG ASP A 714 158.573 173.067 217.120 1.00102.95 C
ATOM 4867 OD1 ASP A 714 157.451 172.781 216.655 1.00102.95 O
ATOM 4868 OD2 ASP A 714 158.737 173.940 217.996 1.00102.95 O
ATOM 4869 N LEU A 715 162.289 173.951 215.562 1.00 99.17 N
ATOM 4870 CA LEU A 715 163.120 175.149 215.605 1.00 99.17 C
ATOM 4871 C LEU A 715 163.052 175.906 214.288 1.00 99.17 C
ATOM 4872 O LEU A 715 162.937 177.136 214.275 1.00 99.17 O
ATOM 4873 CB LEU A 715 164.566 174.788 215.936 1.00 99.17 C
ATOM 4874 CG LEU A 715 165.473 175.989 216.196 1.00 99.17 C
ATOM 4875 CD1 LEU A 715 164.898 176.867 217.291 1.00 99.17 C
ATOM 4876 CD2 LEU A 715 166.873 175.538 216.554 1.00 99.17 C
ATOM 4877 N MET A 716 163.114 175.187 213.167 1.00102.19 N
ATOM 4878 CA MET A 716 162.958 175.836 211.874 1.00102.19 C
ATOM 4879 C MET A 716 161.542 176.341 211.654 1.00102.19 C
ATOM 4880 O MET A 716 161.350 177.290 210.888 1.00102.19 O
ATOM 4881 CB MET A 716 163.348 174.881 210.748 1.00102.19 C
ATOM 4882 CG MET A 716 163.193 175.474 209.360 1.00102.19 C
ATOM 4883 SD MET A 716 161.562 175.183 208.652 1.00102.19 S
ATOM 4884 CE MET A 716 161.660 173.429 208.308 1.00102.19 C
ATOM 4885 N SER A 717 160.548 175.734 212.298 1.00100.46 N
ATOM 4886 CA SER A 717 159.174 176.204 212.193 1.00100.46 C
ATOM 4887 C SER A 717 158.714 176.978 213.419 1.00100.46 C
ATOM 4888 O SER A 717 157.642 177.588 213.381 1.00100.46 O
ATOM 4889 CB SER A 717 158.228 175.027 211.946 1.00100.46 C
ATOM 4890 OG SER A 717 156.903 175.366 212.311 1.00100.46 O
ATOM 4891 N GLY A 718 159.488 176.970 214.499 1.00102.91 N
ATOM 4892 CA GLY A 718 159.142 177.732 215.681 1.00102.91 C
ATOM 4893 C GLY A 718 159.913 179.031 215.733 1.00102.91 C

ATOM 4894 O GLY A 718 159.677 179.879 216.598 1.00102.91 O
ATOM 4895 N LEU A 719 160.849 179.185 214.798 1.00105.23 N
ATOM 4896 CA LEU A 719 161.600 180.420 214.625 1.00105.23 C
ATOM 4897 C LEU A 719 161.457 181.024 213.240 1.00105.23 C
ATOM 4898 O LEU A 719 161.617 182.243 213.105 1.00105.23 O
ATOM 4899 CB LEU A 719 163.092 180.193 214.910 1.00105.23 C
ATOM 4900 CG LEU A 719 164.023 181.389 214.714 1.00105.23 C
ATOM 4901 CD1 LEU A 719 163.410 182.640 215.306 1.00105.23 C
ATOM 4902 CD2 LEU A 719 165.377 181.117 215.339 1.00105.23 C
ATOM 4903 N GLY A 720 161.162 180.229 212.215 1.00107.68 N
ATOM 4904 CA GLY A 720 160.888 180.740 210.892 1.00107.68 C
ATOM 4905 C GLY A 720 159.564 181.447 210.750 1.00107.68 C
ATOM 4906 O GLY A 720 159.133 181.721 209.627 1.00107.68 O
ATOM 4907 N ALA A 721 158.892 181.740 211.862 1.00111.43 N
ATOM 4908 CA ALA A 721 157.648 182.503 211.836 1.00111.43 C
ATOM 4909 C ALA A 721 157.563 183.592 212.892 1.00111.43 C
ATOM 4910 O ALA A 721 156.627 184.396 212.836 1.00111.43 O
ATOM 4911 CB ALA A 721 156.443 181.570 211.992 1.00111.43 C
ATOM 4912 N ALA A 722 158.482 183.654 213.852 1.00112.69 N
ATOM 4913 CA ALA A 722 158.485 184.693 214.875 1.00112.69 C
ATOM 4914 C ALA A 722 159.724 184.492 215.738 1.00112.69 C
ATOM 4915 O ALA A 722 160.372 183.443 215.692 1.00112.69 O
ATOM 4916 CB ALA A 722 157.217 184.664 215.728 1.00112.69 C
ATOM 4917 N GLY A 723 160.043 185.513 216.529 1.00115.66 N
ATOM 4918 CA GLY A 723 161.209 185.474 217.391 1.00115.66 C
ATOM 4919 C GLY A 723 162.404 186.164 216.766 1.00115.66 C
ATOM 4920 O GLY A 723 163.044 185.614 215.865 1.00115.66 O
ATOM 4921 N LYS A 724 162.722 187.369 217.239 1.00114.28 N
ATOM 4922 CA LYS A 724 163.754 188.168 216.588 1.00114.28 C
ATOM 4923 C LYS A 724 165.151 187.766 217.048 1.00114.28 C
ATOM 4924 O LYS A 724 165.973 187.306 216.248 1.00114.28 O
ATOM 4925 CB LYS A 724 163.503 189.655 216.854 1.00114.28 C
ATOM 4926 CG LYS A 724 162.243 190.195 216.196 1.00114.28 C
ATOM 4927 CD LYS A 724 162.385 190.237 214.684 1.00114.28 C

ATOM 4928 CE LYS A 724 161.048 190.505 214.011 1.00114.28 C
ATOM 4929 NZ LYS A 724 160.141 189.328 214.093 1.00114.28 N
ATOM 4930 N ALA A 725 165.436 187.926 218.341 1.00112.61 N
ATOM 4931 CA ALA A 725 166.763 187.671 218.876 1.00112.61 C
ATOM 4932 C ALA A 725 166.797 186.616 219.969 1.00112.61 C
ATOM 4933 O ALA A 725 167.882 186.108 220.277 1.00112.61 O
ATOM 4934 CB ALA A 725 167.380 188.968 219.421 1.00112.61 C
ATOM 4935 N VAL A 726 165.657 186.275 220.567 1.00110.97 N
ATOM 4936 CA VAL A 726 165.648 185.264 221.618 1.00110.97 C
ATOM 4937 C VAL A 726 165.701 183.866 221.020 1.00110.97 C
ATOM 4938 O VAL A 726 166.371 182.977 221.557 1.00110.97 O
ATOM 4939 CB VAL A 726 164.418 185.450 222.523 1.00110.97 C
ATOM 4940 CG1 VAL A 726 164.414 186.842 223.130 1.00110.97 C
ATOM 4941 CG2 VAL A 726 163.142 185.201 221.739 1.00110.97 C
ATOM 4942 N GLY A 727 165.001 183.650 219.907 1.00109.35 N
ATOM 4943 CA GLY A 727 164.958 182.359 219.250 1.00109.35 C
ATOM 4944 C GLY A 727 166.295 181.652 219.200 1.00109.35 C
ATOM 4945 O GLY A 727 166.374 180.439 219.416 1.00109.35 O
ATOM 4946 N VAL A 728 167.359 182.405 218.921 1.00105.49 N
ATOM 4947 CA VAL A 728 168.689 181.808 218.862 1.00105.49 C
ATOM 4948 C VAL A 728 169.061 181.197 220.207 1.00105.49 C
ATOM 4949 O VAL A 728 169.664 180.121 220.268 1.00105.49 O
ATOM 4950 CB VAL A 728 169.725 182.850 218.407 1.00105.49 C
ATOM 4951 CG1 VAL A 728 171.119 182.249 218.424 1.00105.49 C
ATOM 4952 CG2 VAL A 728 169.375 183.369 217.024 1.00105.49 C
ATOM 4953 N ALA A 729 168.698 181.862 221.306 1.00103.77 N
ATOM 4954 CA ALA A 729 169.059 181.349 222.626 1.00103.77 C
ATOM 4955 C ALA A 729 168.267 180.093 222.973 1.00103.77 C
ATOM 4956 O ALA A 729 168.823 179.129 223.517 1.00103.77 O
ATOM 4957 CB ALA A 729 168.845 182.429 223.684 1.00103.77 C
ATOM 4958 N ILE A 730 166.963 180.095 222.691 1.00102.68 N
ATOM 4959 CA ILE A 730 166.167 178.889 222.893 1.00102.68 C
ATOM 4960 C ILE A 730 166.743 177.737 222.084 1.00102.68 C
ATOM 4961 O ILE A 730 166.845 176.607 222.573 1.00102.68 O

ATOM 4962 CB ILE A 730 164.692 179.150 222.539 1.00102.68 C
ATOM 4963 CG1 ILE A 730 164.081 180.154 223.515 1.00102.68 C
ATOM 4964 CG2 ILE A 730 163.909 177.856 222.544 1.00102.68 C
ATOM 4965 CD1 ILE A 730 162.711 180.637 223.109 1.00102.68 C
ATOM 4966 N GLY A 731 167.123 178.001 220.835 1.00101.03 N
ATOM 4967 CA GLY A 731 167.746 176.963 220.033 1.00101.03 C
ATOM 4968 C GLY A 731 169.056 176.480 220.623 1.00101.03 C
ATOM 4969 O GLY A 731 169.351 175.285 220.608 1.00101.03 O
ATOM 4970 N ALA A 732 169.856 177.402 221.161 1.00101.79 N
ATOM 4971 CA ALA A 732 171.145 177.021 221.726 1.00101.79 C
ATOM 4972 C ALA A 732 170.984 176.164 222.973 1.00101.79 C
ATOM 4973 O ALA A 732 171.809 175.279 223.225 1.00101.79 O
ATOM 4974 CB ALA A 732 171.968 178.267 222.045 1.00101.79 C
ATOM 4975 N VAL A 733 169.943 176.413 223.766 1.00 99.72 N
ATOM 4976 CA VAL A 733 169.702 175.569 224.934 1.00 99.72 C
ATOM 4977 C VAL A 733 169.123 174.224 224.515 1.00 99.72 C
ATOM 4978 O VAL A 733 169.517 173.172 225.037 1.00 99.72 O
ATOM 4979 CB VAL A 733 168.789 176.291 225.939 1.00 99.72 C
ATOM 4980 CG1 VAL A 733 168.425 175.360 227.075 1.00 99.72 C
ATOM 4981 CG2 VAL A 733 169.477 177.530 226.474 1.00 99.72 C
ATOM 4982 N GLY A 734 168.178 174.232 223.574 1.00 99.14 N
ATOM 4983 CA GLY A 734 167.678 172.982 223.037 1.00 99.14 C
ATOM 4984 C GLY A 734 168.773 172.119 222.450 1.00 99.14 C
ATOM 4985 O GLY A 734 168.696 170.893 222.506 1.00 99.14 O
ATOM 4986 N GLY A 735 169.802 172.741 221.880 1.00100.79 N
ATOM 4987 CA GLY A 735 170.906 171.969 221.337 1.00100.79 C
ATOM 4988 C GLY A 735 171.459 170.965 222.326 1.00100.79 C
ATOM 4989 O GLY A 735 171.804 169.840 221.958 1.00100.79 O
ATOM 4990 N ALA A 736 171.545 171.355 223.596 1.00101.41 N
ATOM 4991 CA ALA A 736 172.033 170.466 224.641 1.00101.41 C
ATOM 4992 C ALA A 736 170.914 169.646 225.267 1.00101.41 C
ATOM 4993 O ALA A 736 171.116 168.471 225.589 1.00101.41 O
ATOM 4994 CB ALA A 736 172.756 171.271 225.723 1.00101.41 C
ATOM 4995 N VAL A 737 169.730 170.238 225.441 1.00100.83 N

ATOM 4996 CA VAL A 737 168.638 169.505 226.074 1.00100.83 C
ATOM 4997 C VAL A 737 168.117 168.372 225.198 1.00100.83 C
ATOM 4998 O VAL A 737 167.496 167.436 225.713 1.00100.83 O
ATOM 4999 CB VAL A 737 167.495 170.462 226.458 1.00100.83 C
ATOM 5000 CG1 VAL A 737 166.236 169.682 226.779 1.00100.83 C
ATOM 5001 CG2 VAL A 737 167.902 171.308 227.646 1.00100.83 C
ATOM 5002 N ALA A 738 168.356 168.416 223.889 1.00100.01 N
ATOM 5003 CA ALA A 738 167.911 167.372 222.979 1.00100.01 C
ATOM 5004 C ALA A 738 169.004 166.362 222.669 1.00100.01 C
ATOM 5005 O ALA A 738 168.843 165.553 221.751 1.00100.01 O
ATOM 5006 CB ALA A 738 167.386 167.987 221.683 1.00100.01 C
ATOM 5007 N SER A 739 170.112 166.398 223.402 1.00101.86 N
ATOM 5008 CA SER A 739 171.128 165.361 223.310 1.00101.86 C
ATOM 5009 C SER A 739 170.959 164.291 224.376 1.00101.86 C
ATOM 5010 O SER A 739 171.591 163.234 224.279 1.00101.86 O
ATOM 5011 CB SER A 739 172.526 165.975 223.420 1.00101.86 C
ATOM 5012 OG SER A 739 173.525 165.013 223.134 1.00101.86 O
ATOM 5013 N VAL A 740 170.130 164.543 225.383 1.00101.64 N
ATOM 5014 CA VAL A 740 169.826 163.547 226.404 1.00101.64 C
ATOM 5015 C VAL A 740 168.571 162.763 226.049 1.00101.64 C
ATOM 5016 O VAL A 740 168.507 161.549 226.264 1.00101.64 O
ATOM 5017 CB VAL A 740 169.691 164.234 227.776 1.00101.64 C
ATOM 5018 CG1 VAL A 740 169.195 163.249 228.813 1.00101.64 C
ATOM 5019 CG2 VAL A 740 171.017 164.832 228.197 1.00101.64 C
ATOM 5020 N VAL A 741 167.555 163.446 225.518 1.00100.21 N
ATOM 5021 CA VAL A 741 166.328 162.760 225.134 1.00100.21 C
ATOM 5022 C VAL A 741 166.601 161.737 224.044 1.00100.21 C
ATOM 5023 O VAL A 741 165.984 160.669 224.020 1.00100.21 O
ATOM 5024 CB VAL A 741 165.258 163.776 224.696 1.00100.21 C
ATOM 5025 CG1 VAL A 741 164.153 163.076 223.933 1.00100.21 C
ATOM 5026 CG2 VAL A 741 164.693 164.495 225.904 1.00100.21 C
ATOM 5027 N GLU A 742 167.532 162.029 223.135 1.00102.36 N
ATOM 5028 CA GLU A 742 167.859 161.055 222.099 1.00102.36 C
ATOM 5029 C GLU A 742 168.481 159.801 222.699 1.00102.36 C

ATOM 5030 O GLU A 742 168.126 158.680 222.316 1.00102.36 O
ATOM 5031 CB GLU A 742 168.791 161.676 221.063 1.00102.36 C
ATOM 5032 CG GLU A 742 168.129 162.747 220.228 1.00102.36 C
ATOM 5033 CD GLU A 742 167.002 162.192 219.385 1.00102.36 C
ATOM 5034 OE1 GLU A 742 167.087 161.012 218.988 1.00102.36 O
ATOM 5035 OE2 GLU A 742 166.030 162.930 219.122 1.00102.36 O
ATOM 5036 N GLY A 743 169.415 159.969 223.634 1.00103.83 N
ATOM 5037 CA GLY A 743 169.985 158.811 224.300 1.00103.83 C
ATOM 5038 C GLY A 743 168.945 158.015 225.062 1.00103.83 C
ATOM 5039 O GLY A 743 168.968 156.782 225.061 1.00103.83 O
ATOM 5040 N VAL A 744 168.014 158.708 225.720 1.00100.88 N
ATOM 5041 CA VAL A 744 166.990 158.007 226.488 1.00100.88 C
ATOM 5042 C VAL A 744 165.977 157.339 225.567 1.00100.88 C
ATOM 5043 O VAL A 744 165.303 156.384 225.966 1.00100.88 O
ATOM 5044 CB VAL A 744 166.304 158.972 227.470 1.00100.88 C
ATOM 5045 CG1 VAL A 744 165.075 158.325 228.073 1.00100.88 C
ATOM 5046 CG2 VAL A 744 167.274 159.384 228.561 1.00100.88 C
ATOM 5047 N ALA A 745 165.847 157.821 224.330 1.00100.69 N
ATOM 5048 CA ALA A 745 164.916 157.203 223.394 1.00100.69 C
ATOM 5049 C ALA A 745 165.532 155.989 222.712 1.00100.69 C
ATOM 5050 O ALA A 745 164.871 154.956 222.565 1.00100.69 O
ATOM 5051 CB ALA A 745 164.459 158.223 222.354 1.00100.69 C
ATOM 5052 N THR A 746 166.793 156.092 222.286 1.00103.62 N
ATOM 5053 CA THR A 746 167.472 154.934 221.717 1.00103.62 C
ATOM 5054 C THR A 746 167.533 153.774 222.699 1.00103.62 C
ATOM 5055 O THR A 746 167.673 152.622 222.276 1.00103.62 O
ATOM 5056 CB THR A 746 168.883 155.311 221.271 1.00103.62 C
ATOM 5057 OG1 THR A 746 168.811 156.319 220.256 1.00103.62 O
ATOM 5058 CG2 THR A 746 169.607 154.099 220.720 1.00103.62 C
ATOM 5059 N PHE A 747 167.431 154.051 223.998 1.00100.32 N
ATOM 5060 CA PHE A 747 167.405 153.003 225.007 1.00100.32 C
ATOM 5061 C PHE A 747 166.087 152.242 225.022 1.00100.32 C
ATOM 5062 O PHE A 747 166.038 151.128 225.550 1.00100.32 O
ATOM 5063 CB PHE A 747 167.675 153.610 226.385 1.00100.32 C

ATOM 5064 CG PHE A 747 167.768 152.603 227.493 1.00100.32 C
ATOM 5065 CD1 PHE A 747 166.639 152.208 228.185 1.00100.32 C
ATOM 5066 CD2 PHE A 747 168.989 152.069 227.859 1.00100.32 C
ATOM 5067 CE1 PHE A 747 166.724 151.289 229.208 1.00100.32 C
ATOM 5068 CE2 PHE A 747 169.079 151.150 228.882 1.00100.32 C
ATOM 5069 CZ PHE A 747 167.945 150.761 229.557 1.00100.32 C
ATOM 5070 N LEU A 748 165.024 152.814 224.455 1.00100.74 N
ATOM 5071 CA LEU A 748 163.719 152.168 224.393 1.00100.74 C
ATOM 5072 C LEU A 748 163.482 151.471 223.057 1.00100.74 C
ATOM 5073 O LEU A 748 162.333 151.316 222.632 1.00100.74 O
ATOM 5074 CB LEU A 748 162.609 153.183 224.665 1.00100.74 C
ATOM 5075 CG LEU A 748 162.633 153.874 226.029 1.00100.74 C
ATOM 5076 CD1 LEU A 748 161.465 154.831 226.165 1.00100.74 C
ATOM 5077 CD2 LEU A 748 162.614 152.851 227.145 1.00100.74 C
ATOM 5078 N LYS A 749 164.552 151.052 222.383 1.00101.31 N
ATOM 5079 CA LYS A 749 164.447 150.291 221.148 1.00101.31 C
ATOM 5080 C LYS A 749 165.023 148.889 221.269 1.00101.31 C
ATOM 5081 O LYS A 749 164.917 148.107 220.318 1.00101.31 O
ATOM 5082 CB LYS A 749 165.143 151.033 220.001 1.00101.31 C
ATOM 5083 CG LYS A 749 164.809 152.510 219.926 1.00101.31 C
ATOM 5084 CD LYS A 749 163.373 152.725 219.493 1.00101.31 C
ATOM 5085 CE LYS A 749 163.137 154.162 219.067 1.00101.31 C
ATOM 5086 NZ LYS A 749 164.017 154.557 217.935 1.00101.31 N
ATOM 5087 N ASN A 750 165.631 148.551 222.402 1.00 99.22 N
ATOM 5088 CA ASN A 750 166.140 147.218 222.659 1.00 99.22 C
ATOM 5089 C ASN A 750 165.178 146.474 223.564 1.00 99.22 C
ATOM 5090 O ASN A 750 164.866 146.965 224.657 1.00 99.22 O
ATOM 5091 CB ASN A 750 167.517 147.284 223.317 1.00 99.22 C
ATOM 5092 CG ASN A 750 168.508 148.077 222.505 1.00 99.22 C
ATOM 5093 OD1 ASN A 750 168.214 149.183 222.054 1.00 99.22 O
ATOM 5094 ND2 ASN A 750 169.692 147.517 222.308 1.00 99.22 N
ATOM 5095 N PRO A 751 164.677 145.309 223.151 1.00100.73 N
ATOM 5096 CA PRO A 751 163.799 144.541 224.048 1.00100.73 C
ATOM 5097 C PRO A 751 164.332 144.456 225.467 1.00100.73 C

ATOM 5098 O PRO A 751 163.616 144.792 226.419 1.00100.73 O
ATOM 5099 CB PRO A 751 163.735 143.173 223.362 1.00100.73 C
ATOM 5100 CG PRO A 751 163.922 143.481 221.925 1.00100.73 C
ATOM 5101 CD PRO A 751 164.879 144.635 221.859 1.00100.73 C
ATOM 5102 N PHE A 752 165.583 144.025 225.637 1.00101.71 N
ATOM 5103 CA PHE A 752 166.184 143.997 226.963 1.00101.71 C
ATOM 5104 C PHE A 752 166.324 145.385 227.568 1.00101.71 C
ATOM 5105 O PHE A 752 166.573 145.494 228.773 1.00101.71 O
ATOM 5106 CB PHE A 752 167.553 143.322 226.907 1.00101.71 C
ATOM 5107 CG PHE A 752 167.630 142.187 225.931 1.00101.71 C
ATOM 5108 CD1 PHE A 752 166.848 141.059 226.099 1.00101.71 C
ATOM 5109 CD2 PHE A 752 168.483 142.247 224.845 1.00101.71 C
ATOM 5110 CE1 PHE A 752 166.917 140.014 225.202 1.00101.71 C
ATOM 5111 CE2 PHE A 752 168.555 141.206 223.948 1.00101.71 C
ATOM 5112 CZ PHE A 752 167.771 140.088 224.127 1.00101.71 C
ATOM 5113 N GLY A 753 166.179 146.439 226.771 1.00101.58 N
ATOM 5114 CA GLY A 753 166.230 147.787 227.295 1.00101.58 C
ATOM 5115 C GLY A 753 164.873 148.269 227.758 1.00101.58 C
ATOM 5116 O GLY A 753 164.716 148.706 228.901 1.00101.58 O
ATOM 5117 N ALA A 754 163.878 148.189 226.874 1.00102.92 N
ATOM 5118 CA ALA A 754 162.524 148.591 227.225 1.00102.92 C
ATOM 5119 C ALA A 754 161.862 147.637 228.205 1.00102.92 C
ATOM 5120 O ALA A 754 160.779 147.950 228.708 1.00102.92 O
ATOM 5121 CB ALA A 754 161.665 148.706 225.966 1.00102.92 C
ATOM 5122 N PHE A 755 162.477 146.490 228.487 1.00103.84 N
ATOM 5123 CA PHE A 755 161.899 145.529 229.414 1.00103.84 C
ATOM 5124 C PHE A 755 162.252 145.815 230.865 1.00103.84 C
ATOM 5125 O PHE A 755 161.560 145.324 231.763 1.00103.84 O
ATOM 5126 CB PHE A 755 162.351 144.113 229.047 1.00103.84 C
ATOM 5127 CG PHE A 755 161.858 143.054 229.986 1.00103.84 C
ATOM 5128 CD1 PHE A 755 160.555 142.599 229.913 1.00103.84 C
ATOM 5129 CD2 PHE A 755 162.701 142.507 230.937 1.00103.84 C
ATOM 5130 CE1 PHE A 755 160.100 141.622 230.773 1.00103.84 C
ATOM 5131 CE2 PHE A 755 162.251 141.529 231.799 1.00103.84 C

ATOM 5132 CZ PHE A 755 160.949 141.087 231.718 1.00103.84 C
ATOM 5133 N THR A 756 163.304 146.596 231.117 1.00104.91 N
ATOM 5134 CA THR A 756 163.669 146.924 232.490 1.00104.91 C
ATOM 5135 C THR A 756 162.787 148.022 233.069 1.00104.91 C
ATOM 5136 O THR A 756 162.583 148.070 234.287 1.00104.91 O
ATOM 5137 CB THR A 756 165.136 147.346 232.562 1.00104.91 C
ATOM 5138 OG1 THR A 756 165.504 147.570 233.927 1.00104.91 O
ATOM 5139 CG2 THR A 756 165.357 148.622 231.775 1.00104.91 C
ATOM 5140 N ILE A 757 162.264 148.912 232.224 1.00104.67 N
ATOM 5141 CA ILE A 757 161.353 149.941 232.711 1.00104.67 C
ATOM 5142 C ILE A 757 160.066 149.311 233.224 1.00104.67 C
ATOM 5143 O ILE A 757 159.487 149.764 234.219 1.00104.67 O
ATOM 5144 CB ILE A 757 161.075 150.975 231.606 1.00104.67 C
ATOM 5145 CG1 ILE A 757 162.377 151.638 231.159 1.00104.67 C
ATOM 5146 CG2 ILE A 757 160.085 152.016 232.091 1.00104.67 C
ATOM 5147 CD1 ILE A 757 163.297 151.999 232.299 1.00104.67 C
ATOM 5148 N ILE A 758 159.594 148.260 232.550 1.00104.92 N
ATOM 5149 CA ILE A 758 158.375 147.589 232.977 1.00104.92 C
ATOM 5150 C ILE A 758 158.575 146.854 234.293 1.00104.92 C
ATOM 5151 O ILE A 758 157.595 146.529 234.971 1.00104.92 O
ATOM 5152 CB ILE A 758 157.886 146.628 231.879 1.00104.92 C
ATOM 5153 CG1 ILE A 758 157.626 147.397 230.584 1.00104.92 C
ATOM 5154 CG2 ILE A 758 156.631 145.905 232.324 1.00104.92 C
ATOM 5155 CD1 ILE A 758 156.850 146.612 229.558 1.00104.92 C
ATOM 5156 N LEU A 759 159.822 146.583 234.675 1.00107.20 N
ATOM 5157 CA LEU A 759 160.114 146.010 235.983 1.00107.20 C
ATOM 5158 C LEU A 759 160.302 147.087 237.041 1.00107.20 C
ATOM 5159 O LEU A 759 159.882 146.912 238.189 1.00107.20 O
ATOM 5160 CB LEU A 759 161.363 145.131 235.909 1.00107.20 C
ATOM 5161 CG LEU A 759 161.251 143.869 235.057 1.00107.20 C
ATOM 5162 CD1 LEU A 759 162.529 143.061 235.141 1.00107.20 C
ATOM 5163 CD2 LEU A 759 160.064 143.041 235.502 1.00107.20 C
ATOM 5164 N VAL A 760 160.925 148.206 236.671 1.00109.62 N
ATOM 5165 CA VAL A 760 161.092 149.311 237.611 1.00109.62 C

ATOM 5166 C VAL A 760 159.734 149.856 238.032 1.00109.62 C
ATOM 5167 O VAL A 760 159.457 150.038 239.226 1.00109.62 O
ATOM 5168 CB VAL A 760 161.973 150.412 236.995 1.00109.62 C
ATOM 5169 CG1 VAL A 760 161.719 151.737 237.688 1.00109.62 C
ATOM 5170 CG2 VAL A 760 163.437 150.030 237.093 1.00109.62 C
ATOM 5171 N ALA A 761 158.871 150.143 237.056 1.00111.45 N
ATOM 5172 CA ALA A 761 157.544 150.668 237.352 1.00111.45 C
ATOM 5173 C ALA A 761 156.617 149.628 237.957 1.00111.45 C
ATOM 5174 O ALA A 761 155.488 149.971 238.321 1.00111.45 O
ATOM 5175 CB ALA A 761 156.913 151.246 236.084 1.00111.45 C
ATOM 5176 N ILE A 762 157.055 148.376 238.071 1.00112.60 N
ATOM 5177 CA ILE A 762 156.252 147.335 238.698 1.00112.60 C
ATOM 5178 C ILE A 762 156.719 147.167 240.135 1.00112.60 C
ATOM 5179 O ILE A 762 155.923 146.873 241.033 1.00112.60 O
ATOM 5180 CB ILE A 762 156.347 146.009 237.924 1.00112.60 C
ATOM 5181 CG1 ILE A 762 155.353 146.003 236.762 1.00112.60 C
ATOM 5182 CG2 ILE A 762 156.104 144.832 238.852 1.00112.60 C
ATOM 5183 CD1 ILE A 762 155.397 144.744 235.929 1.00112.60 C
ATOM 5184 N ALA A 763 158.019 147.353 240.359 1.00116.58 N
ATOM 5185 CA ALA A 763 158.560 147.288 241.710 1.00116.58 C
ATOM 5186 C ALA A 763 158.246 148.544 242.510 1.00116.58 C
ATOM 5187 O ALA A 763 158.092 148.469 243.735 1.00116.58 O
ATOM 5188 CB ALA A 763 160.071 147.061 241.664 1.00116.58 C
ATOM 5189 N VAL A 764 158.155 149.699 241.849 1.00119.21 N
ATOM 5190 CA VAL A 764 157.870 150.934 242.574 1.00119.21 C
ATOM 5191 C VAL A 764 156.499 150.854 243.238 1.00119.21 C
ATOM 5192 O VAL A 764 156.319 151.277 244.385 1.00119.21 O
ATOM 5193 CB VAL A 764 157.979 152.150 241.635 1.00119.21 C
ATOM 5194 CG1 VAL A 764 156.751 152.259 240.747 1.00119.21 C
ATOM 5195 CG2 VAL A 764 158.179 153.422 242.438 1.00119.21 C
ATOM 5196 N VAL A 765 155.516 150.292 242.533 1.00120.59 N
ATOM 5197 CA VAL A 765 154.165 150.200 243.082 1.00120.59 C
ATOM 5198 C VAL A 765 154.143 149.247 244.270 1.00120.59 C
ATOM 5199 O VAL A 765 153.483 149.501 245.285 1.00120.59 O

ATOM 5200 CB VAL A 765 153.168 149.767 241.995 1.00120.59 C
ATOM 5201 CG1 VAL A 765 151.786 149.587 242.593 1.00120.59 C
ATOM 5202 CG2 VAL A 765 153.136 150.788 240.873 1.00120.59 C
ATOM 5203 N ILE A 766 154.849 148.126 244.152 1.00122.89 N
ATOM 5204 CA ILE A 766 154.964 147.171 245.248 1.00122.89 C
ATOM 5205 C ILE A 766 155.534 147.883 246.465 1.00122.89 C
ATOM 5206 O ILE A 766 154.972 147.807 247.564 1.00122.89 O
ATOM 5207 CB ILE A 766 155.834 145.964 244.855 1.00122.89 C
ATOM 5208 CG1 ILE A 766 155.117 145.117 243.804 1.00122.89 C
ATOM 5209 CG2 ILE A 766 156.173 145.132 246.079 1.00122.89 C
ATOM 5210 CD1 ILE A 766 153.743 144.658 244.234 1.00122.89 C
ATOM 5211 N ILE A 767 156.655 148.582 246.278 1.00124.95 N
ATOM 5212 CA ILE A 767 157.273 149.304 247.388 1.00124.95 C
ATOM 5213 C ILE A 767 156.277 150.277 248.006 1.00124.95 C
ATOM 5214 O ILE A 767 156.184 150.408 249.232 1.00124.95 O
ATOM 5215 CB ILE A 767 158.547 150.026 246.918 1.00124.95 C
ATOM 5216 CG1 ILE A 767 159.572 149.013 246.408 1.00124.95 C
ATOM 5217 CG2 ILE A 767 159.133 150.852 248.046 1.00124.95 C
ATOM 5218 CD1 ILE A 767 159.735 147.810 247.305 1.00124.95 C
ATOM 5219 N ILE A 768 155.517 150.977 247.162 1.00128.30 N
ATOM 5220 CA ILE A 768 154.534 151.936 247.664 1.00128.30 C
ATOM 5221 C ILE A 768 153.525 151.238 248.567 1.00128.30 C
ATOM 5222 O ILE A 768 153.338 151.614 249.729 1.00128.30 O
ATOM 5223 CB ILE A 768 153.835 152.653 246.497 1.00128.30 C
ATOM 5224 CG1 ILE A 768 154.848 153.446 245.673 1.00128.30 C
ATOM 5225 CG2 ILE A 768 152.739 153.565 247.018 1.00128.30 C
ATOM 5226 CD1 ILE A 768 155.453 154.603 246.418 1.00128.30 C
ATOM 5227 N TYR A 769 152.859 150.216 248.039 1.00134.80 N
ATOM 5228 CA TYR A 769 151.794 149.520 248.759 1.00134.80 C
ATOM 5229 C TYR A 769 152.196 149.162 250.183 1.00134.80 C
ATOM 5230 O TYR A 769 151.353 148.806 251.005 1.00134.80 O
ATOM 5231 CB TYR A 769 151.388 148.253 248.007 1.00134.80 C
ATOM 5232 CG TYR A 769 150.276 147.471 248.668 1.00134.80 C
ATOM 5233 CD1 TYR A 769 148.953 147.876 248.555 1.00134.80 C

ATOM 5234 CD2 TYR A 769 150.548 146.326 249.403 1.00134.80 C
ATOM 5235 CE1 TYR A 769 147.932 147.162 249.155 1.00134.80 C
ATOM 5236 CE2 TYR A 769 149.535 145.605 250.007 1.00134.80 C
ATOM 5237 CZ TYR A 769 148.229 146.027 249.879 1.00134.80 C
ATOM 5238 OH TYR A 769 147.217 145.313 250.479 1.00134.80 O
ATOM 5239 N LEU A 770 155.078 148.508 250.283 1.00141.15 N
ATOM 5240 CA LEU A 770 154.698 148.001 251.596 1.00141.15 C
ATOM 5241 C LEU A 770 154.608 149.133 252.611 1.00141.15 C
ATOM 5242 O LEU A 770 154.243 148.918 253.766 1.00141.15 O
ATOM 5243 CB LEU A 770 155.696 146.945 252.068 1.00141.15 C
ATOM 5244 CG LEU A 770 156.040 145.871 251.036 1.00141.15 C
ATOM 5245 CD1 LEU A 770 157.303 145.126 251.433 1.00141.15 C
ATOM 5246 CD2 LEU A 770 154.876 144.910 250.857 1.00141.15 C
ATOM 5247 N ILE A 771 154.941 150.346 252.165 1.00142.28 N
ATOM 5248 CA ILE A 771 155.003 151.488 253.075 1.00142.28 C
ATOM 5249 C ILE A 771 153.631 151.777 253.671 1.00142.28 C
ATOM 5250 O ILE A 771 153.489 151.984 254.881 1.00142.28 O
ATOM 5251 CB ILE A 771 155.570 152.720 252.348 1.00142.28 C
ATOM 5252 CG1 ILE A 771 156.977 152.424 251.826 1.00142.28 C
ATOM 5253 CG2 ILE A 771 155.578 153.924 253.272 1.00142.28 C
ATOM 5254 CD1 ILE A 771 157.714 153.647 251.337 1.00142.28 C
ATOM 5255 N TYR A 772 152.599 151.800 252.825 1.00146.80 N
ATOM 5256 CA TYR A 772 151.266 152.169 253.292 1.00146.80 C
ATOM 5257 C TYR A 772 150.801 151.256 254.419 1.00146.80 C
ATOM 5258 O TYR A 772 150.243 151.719 255.420 1.00146.80 O
ATOM 5259 CB TYR A 772 150.277 152.136 252.127 1.00146.80 C
ATOM 5260 CG TYR A 772 148.899 152.643 252.479 1.00146.80 C
ATOM 5261 CD1 TYR A 772 148.616 154.002 252.472 1.00146.80 C
ATOM 5262 CD2 TYR A 772 147.879 151.764 252.814 1.00146.80 C
ATOM 5263 CE1 TYR A 772 147.356 154.471 252.791 1.00146.80 C
ATOM 5264 CE2 TYR A 772 146.616 152.223 253.134 1.00146.80 C
ATOM 5265 CZ TYR A 772 146.361 153.577 253.121 1.00146.80 C
ATOM 5266 OH TYR A 772 145.104 154.037 253.440 1.00146.80 O
ATOM 5267 N THR A 773 151.021 149.949 254.272 1.00149.19 N

ATOM 5268 CA THR A 773 150.625 149.013 255.319 1.00149.19 C
ATOM 5269 C THR A 773 151.374 149.293 256.615 1.00149.19 C
ATOM 5270 O THR A 773 150.769 149.387 257.689 1.00149.19 O
ATOM 5271 CB THR A 773 150.868 147.574 254.861 1.00149.19 C
ATOM 5272 OG1 THR A 773 152.264 147.267 254.967 1.00149.19 O
ATOM 5273 CG2 THR A 773 150.420 147.391 253.421 1.00149.19 C
ATOM 5274 N ARG A 774 152.701 149.424 256.533 1.00151.10 N
ATOM 5275 CA ARG A 774 153.498 149.682 257.729 1.00151.10 C
ATOM 5276 C ARG A 774 152.957 150.872 258.510 1.00151.10 C
ATOM 5277 O ARG A 774 152.945 150.858 259.746 1.00151.10 O
ATOM 5278 CB ARG A 774 154.959 149.911 257.344 1.00151.10 C
ATOM 5279 CG ARG A 774 155.516 148.871 256.386 1.00151.10 C
ATOM 5280 CD ARG A 774 155.384 147.471 256.957 1.00151.10 C
ATOM 5281 NE ARG A 774 155.712 146.441 255.976 1.00151.10 N
ATOM 5282 CZ ARG A 774 156.930 145.944 255.792 1.00151.10 C
ATOM 5283 NH1 ARG A 774 157.946 146.386 256.522 1.00151.10 N
ATOM 5284 NH2 ARG A 774 157.136 145.007 254.878 1.00151.10 N
ATOM 5285 N GLN A 775 152.504 151.912 257.808 1.00154.55 N
ATOM 5286 CA GLN A 775 151.942 153.069 258.494 1.00154.55 C
ATOM 5287 C GLN A 775 150.639 152.725 259.204 1.00154.55 C
ATOM 5288 O GLN A 775 150.404 153.191 260.324 1.00154.55 O
ATOM 5289 CB GLN A 775 151.722 154.212 257.501 1.00154.55 C
ATOM 5290 CG GLN A 775 150.968 155.407 258.070 1.00154.55 C
ATOM 5291 CD GLN A 775 149.462 155.247 257.984 1.00154.55 C
ATOM 5292 OE1 GLN A 775 148.914 154.984 256.914 1.00154.55 O
ATOM 5293 NE2 GLN A 775 148.786 155.398 259.116 1.00154.55 N
ATOM 5294 N ARG A 776 149.786 151.913 258.576 1.00157.83 N
ATOM 5295 CA ARG A 776 148.486 151.613 259.168 1.00157.83 C
ATOM 5296 C ARG A 776 148.631 150.762 260.422 1.00157.83 C
ATOM 5297 O ARG A 776 147.873 150.931 261.384 1.00157.83 O
ATOM 5298 CB ARG A 776 147.593 150.918 258.141 1.00157.83 C
ATOM 5299 CG ARG A 776 146.309 150.349 258.717 1.00157.83 C
ATOM 5300 CD ARG A 776 145.259 150.162 257.635 1.00157.83 C
ATOM 5301 NE ARG A 776 144.842 151.436 257.055 1.00157.83 N

ATOM 5302 CZ ARG A 776 143.822 151.578 256.216 1.00157.83 C
ATOM 5303 NH1 ARG A 776 143.107 150.522 255.853 1.00157.83 N
ATOM 5304 NH2 ARG A 776 143.516 152.777 255.739 1.00157.83 N
ATOM 5305 N ARG A 777 149.598 149.841 260.434 1.00159.57 N
ATOM 5306 CA ARG A 777 149.830 149.045 261.634 1.00159.57 C
ATOM 5307 C ARG A 777 150.317 149.908 262.791 1.00159.57 C
ATOM 5308 O ARG A 777 150.064 149.581 263.956 1.00159.57 O
ATOM 5309 CB ARG A 777 150.835 147.931 261.345 1.00159.57 C
ATOM 5310 CG ARG A 777 151.234 147.130 262.575 1.00159.57 C
ATOM 5311 CD ARG A 777 152.262 146.063 262.236 1.00159.57 C
ATOM 5312 NE ARG A 777 153.573 146.639 261.954 1.00159.57 N
ATOM 5313 CZ ARG A 777 154.574 145.976 261.385 1.00159.57 C
ATOM 5314 NH1 ARG A 777 154.416 144.707 261.033 1.00159.57 N
ATOM 5315 NH2 ARG A 777 155.734 146.581 261.166 1.00159.57 N
ATOM 5316 N LEU A 778 151.013 151.003 262.493 1.00161.40 N
ATOM 5317 CA LEU A 778 151.521 151.925 263.507 1.00161.40 C
ATOM 5318 C LEU A 778 150.714 153.215 263.554 1.00161.40 C
ATOM 5319 O LEU A 778 151.268 154.297 263.767 1.00161.40 O
ATOM 5320 CB LEU A 778 152.996 152.225 263.257 1.00161.40 C
ATOM 5321 CG LEU A 778 153.972 151.082 263.539 1.00161.40 C
ATOM 5322 CD1 LEU A 778 155.365 151.623 263.818 1.00161.40 C
ATOM 5323 CD2 LEU A 778 153.480 150.232 264.700 1.00161.40 C
ATOM 5324 N CYS A 779 149.403 153.126 263.352 1.00163.89 N
ATOM 5325 CA CYS A 779 148.536 154.299 263.373 1.00163.89 C
ATOM 5326 C CYS A 779 148.711 155.096 264.660 1.00163.89 C
ATOM 5327 O CYS A 779 149.548 155.995 264.734 1.00163.89 O
ATOM 5328 CB CYS A 779 147.073 153.884 263.209 1.00163.89 C
ATOM 5329 SG CYS A 779 145.879 155.178 263.617 1.00163.89 S
TER

HETATM 5330 C1 NAG A1001 185.741 114.783 200.576 1.00103.19 C
HETATM 5331 C2 NAG A1001 185.905 113.490 199.785 1.00103.19 C
HETATM 5332 C3 NAG A1001 186.919 113.682 198.663 1.00103.19 C
HETATM 5333 C4 NAG A1001 186.553 114.891 197.814 1.00103.19 C

HETATM 5334 C5 NAG A1001 186.330 116.118 198.696 1.00103.19 C
HETATM 5335 C6 NAG A1001 185.821 117.314 197.928 1.00103.19 C
HETATM 5336 C7 NAG A1001 185.436 111.484 201.117 1.00103.19 C
HETATM 5337 C8 NAG A1001 186.013 110.419 201.998 1.00103.19 C
HETATM 5338 N2 NAG A1001 186.300 112.393 200.653 1.00103.19 N
HETATM 5339 O3 NAG A1001 186.938 112.516 197.848 1.00103.19 O
HETATM 5340 O4 NAG A1001 187.598 115.157 196.885 1.00103.19 O
HETATM 5341 O5 NAG A1001 185.350 115.828 199.703 1.00103.19 O
HETATM 5342 O6 NAG A1001 184.873 118.051 198.687 1.00103.19 O
HETATM 5343 O7 NAG A1001 184.242 111.519 200.835 1.00103.19 O
HETATM 5344 H1 NAG A1001 186.595 115.017 200.985 1.00103.19 H
HETATM 5345 H2 NAG A1001 185.053 113.260 199.372 1.00103.19 H
HETATM 5346 H3 NAG A1001 187.804 113.821 199.050 1.00103.19 H
HETATM 5347 H4 NAG A1001 185.731 114.696 197.327 1.00103.19 H
HETATM 5348 H5 NAG A1001 187.168 116.353 199.137 1.00103.19 H
HETATM 5349 H61 NAG A1001 185.399 117.006 197.105 1.00103.19 H
HETATM 5350 H62 NAG A1001 186.573 117.895 197.705 1.00103.19 H
HETATM 5351 H81 NAG A1001 186.556 110.834 202.695 1.00103.19 H
HETATM 5352 H82 NAG A1001 186.568 109.820 201.463 1.00103.19 H
HETATM 5353 H83 NAG A1001 185.288 109.911 202.409 1.00103.19 H
HETATM 5354 HN2 NAG A1001 187.178 112.323 200.891 1.00103.19 H
HETATM 5355 HO3 NAG A1001 186.667 112.724 197.028 1.00103.19 H
HETATM 5356 HO6 NAG A1001 184.508 117.520 199.297 1.00103.19 H
HETATM 5357 C1 NAG A1002 188.416 114.642 195.908 1.00101.43 C
HETATM 5358 C2 NAG A1002 189.908 114.504 196.088 1.00101.43 C
HETATM 5359 C3 NAG A1002 190.509 113.834 194.867 1.00101.43 C
HETATM 5360 C4 NAG A1002 189.534 112.828 194.267 1.00101.43 C
HETATM 5361 C5 NAG A1002 188.513 112.308 195.285 1.00101.43 C
HETATM 5362 C6 NAG A1002 189.134 111.443 196.357 1.00101.43 C
HETATM 5363 C7 NAG A1002 190.155 116.622 197.302 1.00101.43 C
HETATM 5364 C8 NAG A1002 190.905 117.916 197.398 1.00101.43 C
HETATM 5365 N2 NAG A1002 190.529 115.799 196.317 1.00101.43 N
HETATM 5366 O3 NAG A1002 191.723 113.184 195.225 1.00101.43 O
HETATM 5367 O4 NAG A1002 188.846 113.420 193.171 1.00101.43 O

HETATM 5368 O5 NAG A1002 187.815 113.369 195.963 1.00101.43 O
HETATM 5369 O6 NAG A1002 188.382 110.255 196.564 1.00101.43 O
HETATM 5370 O7 NAG A1002 189.251 116.336 198.079 1.00101.43 O
HETATM 5371 H1 NAG A1002 188.235 115.047 195.040 1.00101.43 H
HETATM 5372 H2 NAG A1002 190.075 113.937 196.863 1.00101.43 H
HETATM 5373 H3 NAG A1002 190.697 114.518 194.198 1.00101.43 H
HETATM 5374 H4 NAG A1002 190.047 112.070 193.932 1.00101.43 H
HETATM 5375 H5 NAG A1002 187.856 111.772 194.803 1.00101.43 H
HETATM 5376 H61 NAG A1002 189.167 111.947 197.190 1.00101.43 H
HETATM 5377 H62 NAG A1002 190.043 111.206 196.092 1.00101.43 H
HETATM 5378 H81 NAG A1002 190.426 118.607 196.903 1.00101.43 H
HETATM 5379 H82 NAG A1002 191.797 117.804 197.019 1.00101.43 H
HETATM 5380 H83 NAG A1002 190.979 118.180 198.335 1.00101.43 H
HETATM 5381 HN2 NAG A1002 191.209 116.055 195.766 1.00101.43 H
HETATM 5382 HO4 NAG A1002 189.194 113.113 192.414 1.00101.43 H
HETATM 5383 HO6 NAG A1002 187.581 110.344 196.192 1.00101.43 H
HETATM 5384 C1 NAG A1003 193.070 115.400 193.845 1.00100.02 C
HETATM 5385 C2 NAG A1003 193.035 114.988 192.379 1.00100.02 C
HETATM 5386 C3 NAG A1003 194.389 115.252 191.724 1.00100.02 C
HETATM 5387 C4 NAG A1003 194.813 116.697 191.948 1.00100.02 C
HETATM 5388 C5 NAG A1003 194.758 117.035 193.434 1.00100.02 C
HETATM 5389 C6 NAG A1003 195.043 118.490 193.720 1.00100.02 C
HETATM 5390 C7 NAG A1003 191.598 113.180 191.545 1.00100.02 C
HETATM 5391 C8 NAG A1003 191.368 111.700 191.506 1.00100.02 C
HETATM 5392 N2 NAG A1003 192.664 113.590 192.240 1.00100.02 N
HETATM 5393 O3 NAG A1003 194.310 114.983 190.329 1.00100.02 O
HETATM 5394 O4 NAG A1003 196.137 116.897 191.468 1.00100.02 O
HETATM 5395 O5 NAG A1003 193.447 116.764 193.949 1.00100.02 O
HETATM 5396 O6 NAG A1003 194.341 118.933 194.873 1.00100.02 O
HETATM 5397 O7 NAG A1003 190.854 113.968 190.970 1.00100.02 O
HETATM 5398 H1 NAG A1003 193.717 114.845 194.318 1.00100.02 H
HETATM 5399 H2 NAG A1003 192.367 115.537 191.928 1.00100.02 H
HETATM 5400 H3 NAG A1003 195.054 114.661 192.123 1.00100.02 H
HETATM 5401 H4 NAG A1003 194.209 117.288 191.462 1.00100.02 H

HETATM 5402 H5 NAG A1003 195.407 116.482 193.909 1.00100.02 H
HETATM 5403 H61 NAG A1003 194.767 119.023 192.950 1.00100.02 H
HETATM 5404 H62 NAG A1003 196.001 118.606 193.861 1.00100.02 H
HETATM 5405 H81 NAG A1003 191.443 111.334 192.407 1.00100.02 H
HETATM 5406 H82 NAG A1003 192.035 111.284 190.928 1.00100.02 H
HETATM 5407 H83 NAG A1003 190.475 111.520 191.157 1.00100.02 H
HETATM 5408 HN2 NAG A1003 193.184 112.962 192.649 1.00100.02 H
HETATM 5409 HO3 NAG A1003 194.973 115.402 189.913 1.00100.02 H
HETATM 5410 HO4 NAG A1003 196.248 117.753 191.257 1.00100.02 H
HETATM 5411 HO6 NAG A1003 193.812 118.282 195.165 1.00100.02 H
HETATM 5412 C1 NAG A1004 197.622 122.500 163.021 1.00 83.30 C
HETATM 5413 C2 NAG A1004 197.867 121.042 162.685 1.00 83.30 C
HETATM 5414 C3 NAG A1004 198.638 120.934 161.379 1.00 83.30 C
HETATM 5415 C4 NAG A1004 197.908 121.689 160.278 1.00 83.30 C
HETATM 5416 C5 NAG A1004 197.601 123.118 160.721 1.00 83.30 C
HETATM 5417 C6 NAG A1004 196.718 123.856 159.744 1.00 83.30 C
HETATM 5418 C7 NAG A1004 197.971 119.921 164.858 1.00 83.30 C
HETATM 5419 C8 NAG A1004 198.853 119.256 165.864 1.00 83.30 C
HETATM 5420 N2 NAG A1004 198.578 120.372 163.759 1.00 83.30 N
HETATM 5421 O3 NAG A1004 198.772 119.563 161.023 1.00 83.30 O
HETATM 5422 O4 NAG A1004 198.712 121.725 159.105 1.00 83.30 O
HETATM 5423 O5 NAG A1004 196.901 123.112 161.973 1.00 83.30 O
HETATM 5424 O6 NAG A1004 197.425 124.888 159.072 1.00 83.30 O
HETATM 5425 O7 NAG A1004 196.764 120.046 165.032 1.00 83.30 O
HETATM 5426 H1 NAG A1004 198.481 122.949 163.124 1.00 83.30 H
HETATM 5427 H2 NAG A1004 197.003 120.605 162.567 1.00 83.30 H
HETATM 5428 H3 NAG A1004 199.524 121.325 161.500 1.00 83.30 H
HETATM 5429 H4 NAG A1004 197.071 121.230 160.081 1.00 83.30 H
HETATM 5430 H5 NAG A1004 198.441 123.601 160.834 1.00 83.30 H
HETATM 5431 H61 NAG A1004 195.969 124.246 160.232 1.00 83.30 H
HETATM 5432 H62 NAG A1004 196.373 123.219 159.091 1.00 83.30 H
HETATM 5433 H81 NAG A1004 199.293 119.938 166.406 1.00 83.30 H
HETATM 5434 H82 NAG A1004 199.526 118.729 165.395 1.00 83.30 H
HETATM 5435 H83 NAG A1004 198.315 118.673 166.430 1.00 83.30 H

HETATM 5436 HN2 NAG A1004 199.479 120.254 163.679 1.00 83.30 H
HETATM 5437 HO3 NAG A1004 197.980 119.244 160.781 1.00 83.30 H
HETATM 5438 HO4 NAG A1004 199.442 121.237 159.235 1.00 83.30 H
HETATM 5439 HO6 NAG A1004 198.298 124.775 159.191 1.00 83.30 H
HETATM 5440 C1 NAG A1005 205.381 132.662 162.951 1.00122.28 C
HETATM 5441 C2 NAG A1005 205.241 132.685 164.466 1.00122.28 C
HETATM 5442 C3 NAG A1005 206.603 132.471 165.117 1.00122.28 C
HETATM 5443 C4 NAG A1005 207.228 131.182 164.603 1.00122.28 C
HETATM 5444 C5 NAG A1005 207.277 131.190 163.077 1.00122.28 C
HETATM 5445 C6 NAG A1005 207.752 129.877 162.500 1.00122.28 C
HETATM 5446 C7 NAG A1005 204.276 134.142 166.189 1.00122.28 C
HETATM 5447 C8 NAG A1005 203.668 135.479 166.482 1.00122.28 C
HETATM 5448 N2 NAG A1005 204.641 133.929 164.921 1.00122.28 N
HETATM 5449 O3 NAG A1005 206.461 132.408 166.532 1.00122.28 O
HETATM 5450 O4 NAG A1005 208.547 131.040 165.117 1.00122.28 O
HETATM 5451 O5 NAG A1005 205.965 131.424 162.541 1.00122.28 O
HETATM 5452 O6 NAG A1005 208.511 130.073 161.315 1.00122.28 O
HETATM 5453 O7 NAG A1005 204.435 133.295 167.063 1.00122.28 O
HETATM 5454 H1 NAG A1005 205.957 133.398 162.673 1.00122.28 H
HETATM 5455 H2 NAG A1005 204.661 131.944 164.726 1.00122.28 H
HETATM 5456 H3 NAG A1005 207.186 133.218 164.887 1.00122.28 H
HETATM 5457 H4 NAG A1005 206.688 130.426 164.898 1.00122.28 H
HETATM 5458 H5 NAG A1005 207.874 131.904 162.785 1.00122.28 H
HETATM 5459 H61 NAG A1005 206.976 129.321 162.296 1.00122.28 H
HETATM 5460 H62 NAG A1005 208.306 129.422 163.162 1.00122.28 H
HETATM 5461 H81 NAG A1005 204.331 136.177 166.325 1.00122.28 H
HETATM 5462 H82 NAG A1005 203.380 135.507 167.414 1.00122.28 H
HETATM 5463 H83 NAG A1005 202.899 135.618 165.897 1.00122.28 H
HETATM 5464 HN2 NAG A1005 204.498 134.590 164.310 1.00122.28 H
HETATM 5465 HO3 NAG A1005 207.172 132.776 166.916 1.00122.28 H
HETATM 5466 HO4 NAG A1005 208.585 130.324 165.641 1.00122.28 H
HETATM 5467 HO6 NAG A1005 209.182 130.630 161.485 1.00122.28 H
HETATM 5468 C1 NAG A1007 191.423 136.988 130.477 1.00138.87 C
HETATM 5469 C2 NAG A1007 192.918 137.268 130.636 1.00138.87 C

HETATM	5470	C3	NAG A1007	193.722	136.476	129.605	1.00138.87	C
HETATM	5471	C4	NAG A1007	193.343	135.002	129.647	1.00138.87	C
HETATM	5472	C5	NAG A1007	191.834	134.841	129.519	1.00138.87	C
HETATM	5473	C6	NAG A1007	191.381	133.407	129.661	1.00138.87	C
HETATM	5474	C7	NAG A1007	194.414	139.219	130.507	1.00138.87	C
HETATM	5475	C8	NAG A1007	194.489	140.708	130.371	1.00138.87	C
HETATM	5476	N2	NAG A1007	193.185	138.692	130.511	1.00138.87	N
HETATM	5477	O3	NAG A1007	195.114	136.609	129.872	1.00138.87	O
HETATM	5478	O4	NAG A1007	193.982	134.307	128.581	1.00138.87	O
HETATM	5479	O5	NAG A1007	191.186	135.587	130.558	1.00138.87	O
HETATM	5480	O6	NAG A1007	191.025	133.106	131.003	1.00138.87	O
HETATM	5481	O7	NAG A1007	195.420	138.524	130.606	1.00138.87	O
HETATM	5482	H1	NAG A1007	191.124	137.317	129.609	1.00138.87	H
HETATM	5483	H2	NAG A1007	193.194	136.976	131.525	1.00138.87	H
HETATM	5484	H3	NAG A1007	193.531	136.829	128.715	1.00138.87	H
HETATM	5485	H4	NAG A1007	193.636	134.623	130.497	1.00138.87	H
HETATM	5486	H5	NAG A1007	191.550	135.186	128.651	1.00138.87	H
HETATM	5487	H61	NAG A1007	192.107	132.816	129.384	1.00138.87	H
HETATM	5488	H62	NAG A1007	190.611	133.256	129.081	1.00138.87	H
HETATM	5489	H81	NAG A1007	194.229	140.967	129.466	1.00138.87	H
HETATM	5490	H82	NAG A1007	195.402	141.005	130.546	1.00138.87	H
HETATM	5491	H83	NAG A1007	193.883	141.123	131.013	1.00138.87	H
HETATM	5492	HN2	NAG A1007	192.474	139.258	130.435	1.00138.87	H
HETATM	5493	HO4	NAG A1007	194.454	134.880	128.096	1.00138.87	H
HETATM	5494	HO6	NAG A1007	190.469	132.414	131.015	1.00138.87	H
HETATM	5495	C1	NAG A1008	196.138	135.733	130.146	1.00142.45	C
HETATM	5496	C2	NAG A1008	196.783	134.507	130.795	1.00142.45	C
HETATM	5497	C3	NAG A1008	198.049	134.117	130.039	1.00142.45	C
HETATM	5498	C4	NAG A1008	197.741	133.921	128.562	1.00142.45	C
HETATM	5499	C5	NAG A1008	197.074	135.173	128.003	1.00142.45	C
HETATM	5500	C6	NAG A1008	196.642	135.015	126.566	1.00142.45	C
HETATM	5501	C7	NAG A1008	196.150	135.073	133.099	1.00142.45	C
HETATM	5502	C8	NAG A1008	196.640	135.290	134.500	1.00142.45	C
HETATM	5503	N2	NAG A1008	197.082	134.751	132.197	1.00142.45	N

HETATM 5504 O3 NAG A1008 198.587 132.923 130.596 1.00142.45 O
HETATM 5505 O4 NAG A1008 198.937 133.663 127.835 1.00142.45 O
HETATM 5506 O5 NAG A1008 195.892 135.472 128.760 1.00142.45 O
HETATM 5507 O6 NAG A1008 197.618 135.530 125.671 1.00142.45 O
HETATM 5508 O7 NAG A1008 194.966 135.188 132.799 1.00142.45 O
HETATM 5509 H1 NAG A1008 196.743 136.494 130.224 1.00142.45 H
HETATM 5510 H2 NAG A1008 196.153 133.763 130.737 1.00142.45 H
HETATM 5511 H3 NAG A1008 198.707 134.833 130.133 1.00142.45 H
HETATM 5512 H4 NAG A1008 197.132 133.166 128.454 1.00142.45 H
HETATM 5513 H5 NAG A1008 197.694 135.923 128.074 1.00142.45 H
HETATM 5514 H61 NAG A1008 195.798 135.488 126.434 1.00142.45 H
HETATM 5515 H62 NAG A1008 196.508 134.066 126.383 1.00142.45 H
HETATM 5516 H81 NAG A1008 197.052 136.172 134.569 1.00142.45 H
HETATM 5517 H82 NAG A1008 197.301 134.607 134.722 1.00142.45 H
HETATM 5518 H83 NAG A1008 195.889 135.234 135.120 1.00142.45 H
HETATM 5519 HN2 NAG A1008 197.948 134.676 132.474 1.00142.45 H
HETATM 5520 HO3 NAG A1008 198.946 133.105 131.388 1.00142.45 H
HETATM 5521 HO4 NAG A1008 198.733 133.286 127.057 1.00142.45 H
HETATM 5522 HO6 NAG A1008 198.335 135.786 126.128 1.00142.45 H
HETATM 5523 C1 NAG A1009 182.547 136.631 120.771 1.00114.80 C
HETATM 5524 C2 NAG A1009 183.961 137.177 120.900 1.00114.80 C
HETATM 5525 C3 NAG A1009 184.745 136.910 119.621 1.00114.80 C
HETATM 5526 C4 NAG A1009 184.694 135.429 119.270 1.00114.80 C
HETATM 5527 C5 NAG A1009 183.251 134.929 119.248 1.00114.80 C
HETATM 5528 C6 NAG A1009 183.152 133.432 119.076 1.00114.80 C
HETATM 5529 C7 NAG A1009 183.916 139.069 122.458 1.00114.80 C
HETATM 5530 C8 NAG A1009 183.909 140.559 122.597 1.00114.80 C
HETATM 5531 N2 NAG A1009 183.950 138.597 121.208 1.00114.80 N
HETATM 5532 O3 NAG A1009 186.095 137.320 119.802 1.00114.80 O
HETATM 5533 O4 NAG A1009 185.279 135.213 117.992 1.00114.80 O
HETATM 5534 O5 NAG A1009 182.598 135.242 120.488 1.00114.80 O
HETATM 5535 O6 NAG A1009 182.862 132.788 120.309 1.00114.80 O
HETATM 5536 O7 NAG A1009 183.887 138.325 123.432 1.00114.80 O
HETATM 5537 H1 NAG A1009 182.088 137.090 120.042 1.00114.80 H

```
HETATM 5538  H2  NAG A1009     184.405 136.704 121.628  1.00114.80           H
HETATM 5539  H3  NAG A1009     184.352 137.427 118.893  1.00114.80           H
HETATM 5540  H4  NAG A1009     185.197 134.927 119.939  1.00114.80           H
HETATM 5541  H5  NAG A1009     182.774 135.367 118.519  1.00114.80           H
HETATM 5542  H61 NAG A1009     183.999 133.094 118.731  1.00114.80           H
HETATM 5543  H62 NAG A1009     182.443 133.232 118.436  1.00114.80           H
HETATM 5544  H81 NAG A1009     183.010 140.896 122.422  1.00114.80           H
HETATM 5545  H82 NAG A1009     184.533 140.945 121.954  1.00114.80           H
HETATM 5546  H83 NAG A1009     184.180 140.799 123.503  1.00114.80           H
HETATM 5547  HN2 NAG A1009     183.970 139.193 120.518  1.00114.80           H
HETATM 5548  HO3 NAG A1009     186.435 137.565 119.019  1.00114.80           H
HETATM 5549  HO4 NAG A1009     184.702 134.782 117.473  1.00114.80           H
HETATM 5550  HO6 NAG A1009     182.558 133.388 120.888  1.00114.80           H
HETATM 5551  C1  NAG A1010     153.208 117.488 175.822  1.00 67.96           C
HETATM 5552  C2  NAG A1010     151.989 116.903 176.503  1.00 67.96           C
HETATM 5553  C3  NAG A1010     152.132 115.394 176.608  1.00 67.96           C
HETATM 5554  C4  NAG A1010     152.403 114.798 175.234  1.00 67.96           C
HETATM 5555  C5  NAG A1010     153.561 115.520 174.546  1.00 67.96           C
HETATM 5556  C6  NAG A1010     153.729 115.110 173.103  1.00 67.96           C
HETATM 5557  C7  NAG A1010     150.678 117.299 178.537  1.00 67.96           C
HETATM 5558  C8  NAG A1010     150.634 117.988 179.867  1.00 67.96           C
HETATM 5559  N2  NAG A1010     151.785 117.494 177.814  1.00 67.96           N
HETATM 5560  O3  NAG A1010     150.940 114.840 177.151  1.00 67.96           O
HETATM 5561  O4  NAG A1010     152.725 113.418 175.363  1.00 67.96           O
HETATM 5562  O5  NAG A1010     153.339 116.938 174.540  1.00 67.96           O
HETATM 5563  O6  NAG A1010     154.556 116.026 172.399  1.00 67.96           O
HETATM 5564  O7  NAG A1010     149.757 116.596 178.138  1.00 67.96           O
HETATM 5565  H1  NAG A1010     154.002 117.269 176.342  1.00 67.96           H
HETATM 5566  H2  NAG A1010     151.209 117.097 175.950  1.00 67.96           H
HETATM 5567  H3  NAG A1010     152.879 115.188 177.199  1.00 67.96           H
HETATM 5568  H4  NAG A1010     151.602 114.891 174.685  1.00 67.96           H
HETATM 5569  H5  NAG A1010     154.386 115.336 175.033  1.00 67.96           H
HETATM 5570  H61 NAG A1010     152.849 115.087 172.680  1.00 67.96           H
HETATM 5571  H62 NAG A1010     154.125 114.220 173.064  1.00 67.96           H
```

HETATM 5572 H81 NAG A1010 151.522 117.974 180.272 1.00 67.96 H
HETATM 5573 H82 NAG A1010 150.007 117.524 180.453 1.00 67.96 H
HETATM 5574 H83 NAG A1010 150.343 118.911 179.747 1.00 67.96 H
HETATM 5575 HN2 NAG A1010 152.442 118.027 178.151 1.00 67.96 H
HETATM 5576 HO3 NAG A1010 150.992 114.848 178.038 1.00 67.96 H
HETATM 5577 HO4 NAG A1010 152.499 112.990 174.618 1.00 67.96 H
HETATM 5578 HO6 NAG A1010 154.053 116.513 171.852 1.00 67.96 H
HETATM 5579 C1 NAG A1011 161.666 115.793 174.427 1.00 74.66 C
HETATM 5580 C2 NAG A1011 161.323 114.382 173.979 1.00 74.66 C
HETATM 5581 C3 NAG A1011 162.066 114.048 172.694 1.00 74.66 C
HETATM 5582 C4 NAG A1011 161.785 115.106 171.636 1.00 74.66 C
HETATM 5583 C5 NAG A1011 162.067 116.502 172.186 1.00 74.66 C
HETATM 5584 C6 NAG A1011 161.654 117.602 171.237 1.00 74.66 C
HETATM 5585 C7 NAG A1011 160.762 113.077 175.977 1.00 74.66 C
HETATM 5586 C8 NAG A1011 161.239 112.059 176.967 1.00 74.66 C
HETATM 5587 N2 NAG A1011 161.630 113.412 175.017 1.00 74.66 N
HETATM 5588 O3 NAG A1011 161.654 112.770 172.225 1.00 74.66 O
HETATM 5589 O4 NAG A1011 162.602 114.875 170.494 1.00 74.66 O
HETATM 5590 O5 NAG A1011 161.335 116.712 173.401 1.00 74.66 O
HETATM 5591 O6 NAG A1011 162.289 118.832 171.557 1.00 74.66 O
HETATM 5592 O7 NAG A1011 159.643 113.574 176.044 1.00 74.66 O
HETATM 5593 H1 NAG A1011 162.624 115.843 174.602 1.00 74.66 H
HETATM 5594 H2 NAG A1011 160.366 114.346 173.790 1.00 74.66 H
HETATM 5595 H3 NAG A1011 163.024 114.029 172.878 1.00 74.66 H
HETATM 5596 H4 NAG A1011 160.846 115.050 171.376 1.00 74.66 H
HETATM 5597 H5 NAG A1011 163.021 116.583 172.376 1.00 74.66 H
HETATM 5598 H61 NAG A1011 160.687 117.716 171.289 1.00 74.66 H
HETATM 5599 H62 NAG A1011 161.894 117.345 170.327 1.00 74.66 H
HETATM 5600 H81 NAG A1011 162.012 112.413 177.447 1.00 74.66 H
HETATM 5601 H82 NAG A1011 161.492 111.242 176.496 1.00 74.66 H
HETATM 5602 H83 NAG A1011 160.524 111.864 177.601 1.00 74.66 H
HETATM 5603 HN2 NAG A1011 162.450 113.013 175.010 1.00 74.66 H
HETATM 5604 HO3 NAG A1011 161.508 112.234 172.918 1.00 74.66 H
HETATM 5605 HO4 NAG A1011 162.935 114.053 170.536 1.00 74.66 H

HETATM 5606 HO6 NAG A1011 162.933 118.685 172.150 1.00 74.66 H
HETATM 5607 C1 NAG A1012 185.111 118.900 150.723 1.00131.36 C
HETATM 5608 C2 NAG A1012 186.221 117.858 150.619 1.00131.36 C
HETATM 5609 C3 NAG A1012 185.690 116.586 149.964 1.00131.36 C
HETATM 5610 C4 NAG A1012 184.453 116.089 150.698 1.00131.36 C
HETATM 5611 C5 NAG A1012 183.420 117.206 150.813 1.00131.36 C
HETATM 5612 C6 NAG A1012 182.224 116.817 151.650 1.00131.36 C
HETATM 5613 C7 NAG A1012 188.507 117.709 149.735 1.00131.36 C
HETATM 5614 C8 NAG A1012 189.573 118.397 148.940 1.00131.36 C
HETATM 5615 N2 NAG A1012 187.359 118.379 149.878 1.00131.36 N
HETATM 5616 O3 NAG A1012 186.697 115.580 149.983 1.00131.36 O
HETATM 5617 O4 NAG A1012 183.883 114.992 149.993 1.00131.36 O
HETATM 5618 O5 NAG A1012 184.007 118.354 151.442 1.00131.36 O
HETATM 5619 O6 NAG A1012 182.616 116.406 152.952 1.00131.36 O
HETATM 5620 O7 NAG A1012 188.674 116.596 150.222 1.00131.36 O
HETATM 5621 H1 NAG A1012 184.818 119.154 149.828 1.00131.36 H
HETATM 5622 H2 NAG A1012 186.515 117.634 151.522 1.00131.36 H
HETATM 5623 H3 NAG A1012 185.452 116.778 149.037 1.00131.36 H
HETATM 5624 H4 NAG A1012 184.708 115.796 151.594 1.00131.36 H
HETATM 5625 H5 NAG A1012 183.117 117.452 149.918 1.00131.36 H
HETATM 5626 H61 NAG A1012 181.753 116.083 151.212 1.00131.36 H
HETATM 5627 H62 NAG A1012 181.625 117.583 151.724 1.00131.36 H
HETATM 5628 H81 NAG A1012 189.700 119.301 149.283 1.00131.36 H
HETATM 5629 H82 NAG A1012 189.304 118.438 148.002 1.00131.36 H
HETATM 5630 H83 NAG A1012 190.407 117.897 149.017 1.00131.36 H
HETATM 5631 HN2 NAG A1012 187.287 119.204 149.495 1.00131.36 H
HETATM 5632 HO3 NAG A1012 186.349 114.810 149.712 1.00131.36 H
HETATM 5633 HO4 NAG A1012 184.415 114.767 149.319 1.00131.36 H
HETATM 5634 HO6 NAG A1012 181.894 116.268 153.450 1.00131.36 H
HETATM 5635 C1 NAG A1013 164.193 128.515 121.874 1.00111.93 C
HETATM 5636 C2 NAG A1013 163.763 127.244 122.597 1.00111.93 C
HETATM 5637 C3 NAG A1013 162.965 126.347 121.656 1.00111.93 C
HETATM 5638 C4 NAG A1013 161.813 127.123 121.031 1.00111.93 C
HETATM 5639 C5 NAG A1013 162.319 128.416 120.398 1.00111.93 C

HETATM	5640	C6	NAG A1013	161.200	129.299	119.899	1.00111.93	C
HETATM	5641	C7	NAG A1013	165.470	126.821	124.309	1.00111.93	C
HETATM	5642	C8	NAG A1013	166.654	125.989	124.700	1.00111.93	C
HETATM	5643	N2	NAG A1013	164.916	126.532	123.128	1.00111.93	N
HETATM	5644	O3	NAG A1013	162.457	125.234	122.383	1.00111.93	O
HETATM	5645	O4	NAG A1013	161.188	126.336	120.024	1.00111.93	O
HETATM	5646	O5	NAG A1013	163.048	129.185	121.366	1.00111.93	O
HETATM	5647	O6	NAG A1013	160.000	128.561	119.715	1.00111.93	O
HETATM	5648	O7	NAG A1013	165.036	127.713	125.030	1.00111.93	O
HETATM	5649	H1	NAG A1013	164.781	128.278	121.132	1.00111.93	H
HETATM	5650	H2	NAG A1013	163.183	127.495	123.340	1.00111.93	H
HETATM	5651	H3	NAG A1013	163.553	126.026	120.946	1.00111.93	H
HETATM	5652	H4	NAG A1013	161.160	127.340	121.722	1.00111.93	H
HETATM	5653	H5	NAG A1013	162.911	128.194	119.655	1.00111.93	H
HETATM	5654	H61	NAG A1013	161.464	129.698	119.049	1.00111.93	H
HETATM	5655	H62	NAG A1013	161.041	130.007	120.552	1.00111.93	H
HETATM	5656	H81	NAG A1013	167.388	126.155	124.078	1.00111.93	H
HETATM	5657	H82	NAG A1013	166.409	125.045	124.670	1.00111.93	H
HETATM	5658	H83	NAG A1013	166.935	126.227	125.604	1.00111.93	H
HETATM	5659	HN2	NAG A1013	165.279	125.859	122.631	1.00111.93	H
HETATM	5660	HO3	NAG A1013	161.755	125.488	122.864	1.00111.93	H
HETATM	5661	HO4	NAG A1013	161.504	126.575	119.228	1.00111.93	H
HETATM	5662	HO6	NAG A1013	159.335	129.120	119.532	1.00111.93	H
HETATM	5663	C1	NAG A1014	181.683	157.250	123.540	1.00129.17	C
HETATM	5664	C2	NAG A1014	181.539	158.383	122.530	1.00129.17	C
HETATM	5665	C3	NAG A1014	181.828	157.875	121.121	1.00129.17	C
HETATM	5666	C4	NAG A1014	183.180	157.174	121.072	1.00129.17	C
HETATM	5667	C5	NAG A1014	183.254	156.096	122.150	1.00129.17	C
HETATM	5668	C6	NAG A1014	184.613	155.440	122.243	1.00129.17	C
HETATM	5669	C7	NAG A1014	179.980	160.280	122.439	1.00129.17	C
HETATM	5670	C8	NAG A1014	178.547	160.712	122.540	1.00129.17	C
HETATM	5671	N2	NAG A1014	180.211	158.972	122.598	1.00129.17	N
HETATM	5672	O3	NAG A1014	181.818	158.969	120.212	1.00129.17	O
HETATM	5673	O4	NAG A1014	183.369	156.575	119.795	1.00129.17	O

HETATM 5674 O5 NAG A1014 182.985 156.674 123.435 1.00129.17 O
HETATM 5675 O6 NAG A1014 185.203 155.643 123.520 1.00129.17 O
HETATM 5676 O7 NAG A1014 180.887 161.078 122.221 1.00129.17 O
HETATM 5677 H1 NAG A1014 181.012 156.569 123.347 1.00129.17 H
HETATM 5678 H2 NAG A1014 182.198 159.070 122.745 1.00129.17 H
HETATM 5679 H3 NAG A1014 181.133 157.240 120.864 1.00129.17 H
HETATM 5680 H4 NAG A1014 183.886 157.830 121.223 1.00129.17 H
HETATM 5681 H5 NAG A1014 182.585 155.411 121.960 1.00129.17 H
HETATM 5682 H61 NAG A1014 185.199 155.814 121.558 1.00129.17 H
HETATM 5683 H62 NAG A1014 184.515 154.481 122.089 1.00129.17 H
HETATM 5684 H81 NAG A1014 177.999 159.964 122.842 1.00129.17 H
HETATM 5685 H82 NAG A1014 178.236 161.011 121.664 1.00129.17 H
HETATM 5686 H83 NAG A1014 178.472 161.447 123.178 1.00129.17 H
HETATM 5687 HN2 NAG A1014 179.501 158.423 122.758 1.00129.17 H
HETATM 5688 HO3 NAG A1014 181.950 159.726 120.658 1.00129.17 H
HETATM 5689 HO4 NAG A1014 183.094 157.134 119.162 1.00129.17 H
HETATM 5690 HO6 NAG A1014 186.087 155.633 123.443 1.00129.17 H
HETATM 5691 C1 NAG A1015 189.565 118.324 157.464 1.00 93.55 C
HETATM 5692 C2 NAG A1015 190.833 117.953 158.228 1.00 93.55 C
HETATM 5693 C3 NAG A1015 191.388 116.628 157.715 1.00 93.55 C
HETATM 5694 C4 NAG A1015 190.312 115.551 157.753 1.00 93.55 C
HETATM 5695 C5 NAG A1015 189.061 116.029 157.020 1.00 93.55 C
HETATM 5696 C6 NAG A1015 187.905 115.063 157.131 1.00 93.55 C
HETATM 5697 C7 NAG A1015 192.844 119.144 158.980 1.00 93.55 C
HETATM 5698 C8 NAG A1015 193.777 120.286 158.715 1.00 93.55 C
HETATM 5699 N2 NAG A1015 191.831 119.004 158.119 1.00 93.55 N
HETATM 5700 O3 NAG A1015 192.497 116.234 158.515 1.00 93.55 O
HETATM 5701 O4 NAG A1015 190.794 114.362 157.138 1.00 93.55 O
HETATM 5702 O5 NAG A1015 188.612 117.272 157.578 1.00 93.55 O
HETATM 5703 O6 NAG A1015 186.815 115.641 157.835 1.00 93.55 O
HETATM 5704 O7 NAG A1015 193.002 118.380 159.926 1.00 93.55 O
HETATM 5705 H1 NAG A1015 189.785 118.458 156.523 1.00 93.55 H
HETATM 5706 H2 NAG A1015 190.606 117.836 159.170 1.00 93.55 H
HETATM 5707 H3 NAG A1015 191.687 116.744 156.793 1.00 93.55 H

```
HETATM 5708  H4  NAG A1015     190.085 115.359 158.682  1.00 93.55           H
HETATM 5709  H5  NAG A1015     189.274 116.165 156.077  1.00 93.55           H
HETATM 5710  H61 NAG A1015     188.201 114.264 157.606  1.00 93.55           H
HETATM 5711  H62 NAG A1015     187.611 114.812 156.234  1.00 93.55           H
HETATM 5712  H81 NAG A1015     193.323 120.957 158.172  1.00 93.55           H
HETATM 5713  H82 NAG A1015     194.565 119.958 158.242  1.00 93.55           H
HETATM 5714  H83 NAG A1015     194.049 120.686 159.562  1.00 93.55           H
HETATM 5715  HN2 NAG A1015     191.758 119.602 157.433  1.00 93.55           H
HETATM 5716  HO3 NAG A1015     193.059 115.752 158.025  1.00 93.55           H
HETATM 5717  HO4 NAG A1015     190.863 114.488 156.261  1.00 93.55           H
HETATM 5718  HO6 NAG A1015     186.753 115.270 158.638  1.00 93.55           H
HETATM 5719  C1  PFE A1101     155.974 177.119 221.765  1.00100.14           C
HETATM 5720  C13 PFE A1101     153.429 172.830 223.301  1.00100.14           C
HETATM 5721  C18 PFE A1101     159.120 175.261 221.560  1.00100.14           C
HETATM 5722  C2  PFE A1101     157.006 176.233 222.454  1.00100.14           C
HETATM 5723  C21 PFE A1101     160.914 174.187 220.177  1.00100.14           C
HETATM 5724  C22 PFE A1101     161.068 173.041 219.410  1.00100.14           C
HETATM 5725  C23 PFE A1101     162.328 172.538 219.150  1.00100.14           C
HETATM 5726  C24 PFE A1101     163.453 173.173 219.654  1.00100.14           C
HETATM 5727  C25 PFE A1101     163.301 174.327 220.409  1.00100.14           C
HETATM 5728  C26 PFE A1101     162.041 174.831 220.668  1.00100.14           C
HETATM 5729  C28 PFE A1101     165.109 171.736 218.491  1.00100.14           C
HETATM 5730  C3  PFE A1101     156.353 175.225 223.377  1.00100.14           C
HETATM 5731  C30 PFE A1101     166.538 171.348 218.555  1.00100.14           C
HETATM 5732  C31 PFE A1101     167.106 170.428 217.735  1.00100.14           C
HETATM 5733  C33 PFE A1101     168.559 171.416 219.335  1.00100.14           C
HETATM 5734  C4  PFE A1101     155.234 174.518 222.955  1.00100.14           C
HETATM 5735  C5  PFE A1101     154.618 173.592 223.787  1.00100.14           C
HETATM 5736  C6  PFE A1101     155.115 173.364 225.064  1.00100.14           C
HETATM 5737  C7  PFE A1101     156.233 174.066 225.496  1.00100.14           C
HETATM 5738  C8  PFE A1101     156.844 174.988 224.655  1.00100.14           C
HETATM 5739  C9  PFE A1101     156.782 173.826 226.865  1.00100.14           C
HETATM 5740  F10 PFE A1101     155.834 173.558 227.755  1.00100.14           F
HETATM 5741  F11 PFE A1101     157.625 172.801 226.906  1.00100.14           F
```

HETATM 5742 F12 PFE A1101 157.449 174.871 227.340 1.00100.14 F
HETATM 5743 F14 PFE A1101 152.449 172.784 224.198 1.00100.14 F
HETATM 5744 F15 PFE A1101 152.898 173.354 222.202 1.00100.14 F
HETATM 5745 F16 PFE A1101 153.717 171.568 223.002 1.00100.14 F
HETATM 5746 N17 PFE A1101 157.828 175.577 221.435 1.00100.14 N
HETATM 5747 N20 PFE A1101 159.614 174.669 220.454 1.00100.14 N
HETATM 5748 N27 PFE A1101 164.741 172.640 219.422 1.00100.14 N
HETATM 5749 N34 PFE A1101 167.379 171.925 219.487 1.00100.14 N
HETATM 5750 O29 PFE A1101 164.351 171.256 217.653 1.00100.14 O
HETATM 5751 S19 PFE A1101 160.002 175.561 222.954 1.00100.14 S
HETATM 5752 S32 PFE A1101 168.754 170.247 218.107 1.00100.14 S
HETATM 5753 HC2 PFE A1101 157.652 176.879 223.046 1.00100.14 H
HETATM 5754 HC4 PFE A1101 154.830 174.688 221.958 1.00100.14 H
HETATM 5755 HC6 PFE A1101 154.633 172.644 225.723 1.00100.14 H
HETATM 5756 HC8 PFE A1101 157.718 175.539 224.997 1.00100.14 H
HETATM 5757 HC1A PFE A1101 155.322 177.591 222.498 1.00100.14 H
HETATM 5758 HC1B PFE A1101 156.451 177.921 221.204 1.00100.14 H
HETATM 5759 HC1C PFE A1101 155.338 176.583 221.062 1.00100.14 H
HETATM 5760 HC22 PFE A1101 160.199 172.533 218.996 1.00100.14 H
HETATM 5761 HC23 PFE A1101 162.399 171.643 218.535 1.00100.14 H
HETATM 5762 HC25 PFE A1101 164.167 174.853 220.806 1.00100.14 H
HETATM 5763 HC26 PFE A1101 161.939 175.738 221.260 1.00100.14 H
HETATM 5764 HC31 PFE A1101 166.615 169.862 216.946 1.00100.14 H
HETATM 5765 HC33 PFE A1101 169.394 171.712 219.967 1.00100.14 H
HETATM 5766 HN17 PFE A1101 157.322 175.360 220.583 1.00100.14 H
HETATM 5767 HN20 PFE A1101 159.004 174.506 219.660 1.00100.14 H
HETATM 5768 HN27 PFE A1101 165.453 173.002 220.047 1.00100.14 H

ATOM 1 N THR B 86 187.957 161.107 163.957 1.00 68.89 N
ATOM 2 CA THR B 86 186.849 162.040 164.110 1.00 68.89 C
ATOM 3 C THR B 86 187.125 163.344 163.375 1.00 68.89 C
ATOM 4 O THR B 86 187.552 164.328 163.980 1.00 68.89 O
ATOM 5 CB THR B 86 186.569 162.353 165.589 1.00 68.89 C
ATOM 6 OG1 THR B 86 187.713 162.991 166.168 1.00 68.89 O

ATOM 7 CG2 THR B 86 186.268 161.077 166.354 1.00 68.89 C
ATOM 8 N THR B 87 186.882 163.347 162.066 1.00 71.95 N
ATOM 9 CA THR B 87 187.061 164.537 161.246 1.00 71.95 C
ATOM 10 C THR B 87 185.753 165.171 160.807 1.00 71.95 C
ATOM 11 O THR B 87 185.694 166.391 160.656 1.00 71.95 O
ATOM 12 CB THR B 87 187.892 164.212 160.000 1.00 71.95 C
ATOM 13 OG1 THR B 87 189.175 163.711 160.397 1.00 71.95 O
ATOM 14 CG2 THR B 87 188.084 165.458 159.154 1.00 71.95 C
ATOM 15 N LYS B 88 184.708 164.372 160.597 1.00 66.47 N
ATOM 16 CA LYS B 88 183.381 164.890 160.312 1.00 66.47 C
ATOM 17 C LYS B 88 182.373 164.534 161.392 1.00 66.47 C
ATOM 18 O LYS B 88 181.221 164.975 161.314 1.00 66.47 O
ATOM 19 CB LYS B 88 182.884 164.380 158.955 1.00 66.47 C
ATOM 20 CG LYS B 88 183.139 162.907 158.711 1.00 66.47 C
ATOM 21 CD LYS B 88 182.651 162.492 157.334 1.00 66.47 C
ATOM 22 CE LYS B 88 181.182 162.829 157.149 1.00 66.47 C
ATOM 23 NZ LYS B 88 180.660 162.341 155.845 1.00 66.47 N
ATOM 24 N TYR B 89 182.770 163.751 162.395 1.00 60.35 N
ATOM 25 CA TYR B 89 181.930 163.418 163.543 1.00 60.35 C
ATOM 26 C TYR B 89 182.628 163.908 164.806 1.00 60.35 C
ATOM 27 O TYR B 89 183.168 163.108 165.582 1.00 60.35 O
ATOM 28 CB TYR B 89 181.657 161.920 163.626 1.00 60.35 C
ATOM 29 CG TYR B 89 180.948 161.351 162.422 1.00 60.35 C
ATOM 30 CD1 TYR B 89 179.657 161.743 162.104 1.00 60.35 C
ATOM 31 CD2 TYR B 89 181.567 160.415 161.610 1.00 60.35 C
ATOM 32 CE1 TYR B 89 179.005 161.223 161.007 1.00 60.35 C
ATOM 33 CE2 TYR B 89 180.924 159.889 160.511 1.00 60.35 C
ATOM 34 CZ TYR B 89 179.643 160.295 160.214 1.00 60.35 C
ATOM 35 OH TYR B 89 179.000 159.772 159.119 1.00 60.35 O
ATOM 36 N PRO B 90 182.638 165.218 165.041 1.00 51.95 N
ATOM 37 CA PRO B 90 183.302 165.756 166.230 1.00 51.95 C
ATOM 38 C PRO B 90 182.365 165.819 167.424 1.00 51.95 C
ATOM 39 O PRO B 90 181.182 166.140 167.306 1.00 51.95 O
ATOM 40 CB PRO B 90 183.708 167.162 165.772 1.00 51.95 C

ATOM 41 CG PRO B 90 182.625 167.548 164.825 1.00 51.95 C
ATOM 42 CD PRO B 90 182.121 166.285 164.170 1.00 51.95 C
ATOM 43 N TYR B 91 182.913 165.495 168.593 1.00 47.85 N
ATOM 44 CA TYR B 91 182.138 165.532 169.825 1.00 47.85 C
ATOM 45 C TYR B 91 181.375 166.842 169.935 1.00 47.85 C
ATOM 46 O TYR B 91 181.967 167.923 169.921 1.00 47.85 O
ATOM 47 CB TYR B 91 183.060 165.357 171.031 1.00 47.85 C
ATOM 48 CG TYR B 91 183.834 164.061 171.030 1.00 47.85 C
ATOM 49 CD1 TYR B 91 183.283 162.903 171.552 1.00 47.85 C
ATOM 50 CD2 TYR B 91 185.116 163.998 170.512 1.00 47.85 C
ATOM 51 CE1 TYR B 91 183.986 161.718 171.554 1.00 47.85 C
ATOM 52 CE2 TYR B 91 185.826 162.817 170.511 1.00 47.85 C
ATOM 53 CZ TYR B 91 185.255 161.680 171.033 1.00 47.85 C
ATOM 54 OH TYR B 91 185.958 160.499 171.035 1.00 47.85 O
ATOM 55 N ARG B 92 180.055 166.740 170.047 1.00 47.17 N
ATOM 56 CA ARG B 92 179.195 167.911 170.079 1.00 47.17 C
ATOM 57 C ARG B 92 178.080 167.676 171.082 1.00 47.17 C
ATOM 58 O ARG B 92 177.751 166.537 171.414 1.00 47.17 O
ATOM 59 CB ARG B 92 178.622 168.207 168.693 1.00 47.17 C
ATOM 60 CG ARG B 92 177.846 167.050 168.104 1.00 47.17 C
ATOM 61 CD ARG B 92 177.916 167.052 166.592 1.00 47.17 C
ATOM 62 NE ARG B 92 176.920 166.164 166.006 1.00 47.17 N
ATOM 63 CZ ARG B 92 177.132 164.883 165.737 1.00 47.17 C
ATOM 64 NH1 ARG B 92 178.308 164.336 166.000 1.00 47.17 N
ATOM 65 NH2 ARG B 92 176.168 164.147 165.205 1.00 47.17 N
ATOM 66 N VAL B 93 177.491 168.770 171.557 1.00 44.30 N
ATOM 67 CA VAL B 93 176.436 168.730 172.570 1.00 44.30 C
ATOM 68 C VAL B 93 175.309 169.630 172.077 1.00 44.30 C
ATOM 69 O VAL B 93 175.310 170.840 172.322 1.00 44.30 O
ATOM 70 CB VAL B 93 176.927 169.183 173.945 1.00 44.30 C
ATOM 71 CG1 VAL B 93 175.748 169.467 174.849 1.00 44.30 C
ATOM 72 CG2 VAL B 93 177.828 168.139 174.552 1.00 44.30 C
ATOM 73 N CYS B 94 174.322 169.045 171.403 1.00 50.21 N
ATOM 74 CA CYS B 94 173.195 169.820 170.892 1.00 50.21 C

ATOM 75 C CYS B 94 171.871 169.171 171.275 1.00 50.21 C
ATOM 76 O CYS B 94 171.374 168.278 170.584 1.00 50.21 O
ATOM 77 CB CYS B 94 173.303 170.024 169.389 1.00 50.21 C
ATOM 78 SG CYS B 94 173.374 168.570 168.349 1.00 50.21 S
ATOM 79 N SER B 95 171.313 169.645 172.386 1.00 49.61 N
ATOM 80 CA SER B 95 169.918 169.429 172.747 1.00 49.61 C
ATOM 81 C SER B 95 169.213 170.703 173.175 1.00 49.61 C
ATOM 82 O SER B 95 167.986 170.687 173.313 1.00 49.61 O
ATOM 83 CB SER B 95 169.806 168.396 173.873 1.00 49.61 C
ATOM 84 OG SER B 95 170.490 168.835 175.032 1.00 49.61 O
ATOM 85 N MET B 96 169.932 171.803 173.380 1.00 50.74 N
ATOM 86 CA MET B 96 169.353 173.068 173.804 1.00 50.74 C
ATOM 87 C MET B 96 169.044 173.927 172.586 1.00 50.74 C
ATOM 88 O MET B 96 169.909 174.128 171.730 1.00 50.74 O
ATOM 89 CB MET B 96 170.320 173.802 174.732 1.00 50.74 C
ATOM 90 CG MET B 96 171.766 173.719 174.275 1.00 50.74 C
ATOM 91 SD MET B 96 172.953 174.283 175.505 1.00 50.74 S
ATOM 92 CE MET B 96 172.413 173.351 176.928 1.00 50.74 C
ATOM 93 N ALA B 97 167.813 174.436 172.511 1.00 45.76 N
ATOM 94 CA ALA B 97 167.410 175.246 171.363 1.00 45.76 C
ATOM 95 C ALA B 97 166.303 176.199 171.808 1.00 45.76 C
ATOM 96 O ALA B 97 165.144 175.795 171.913 1.00 45.76 O
ATOM 97 CB ALA B 97 166.958 174.371 170.209 1.00 45.76 C
ATOM 98 N GLN B 98 166.672 177.454 172.050 1.00 46.20 N
ATOM 99 CA GLN B 98 165.706 178.517 172.287 1.00 46.20 C
ATOM 100 C GLN B 98 165.154 178.979 170.947 1.00 46.20 C
ATOM 101 O GLN B 98 165.319 178.289 169.938 1.00 46.20 O
ATOM 102 CB GLN B 98 166.339 179.681 173.047 1.00 46.20 C
ATOM 103 CG GLN B 98 167.414 179.266 174.022 1.00 46.20 C
ATOM 104 CD GLN B 98 166.857 178.526 175.214 1.00 46.20 C
ATOM 105 OE1 GLN B 98 165.813 178.889 175.750 1.00 46.20 O
ATOM 106 NE2 GLN B 98 167.554 177.483 175.639 1.00 46.20 N
ATOM 107 N GLY B 99 164.503 180.136 170.916 1.00 43.92 N
ATOM 108 CA GLY B 99 163.883 180.585 169.686 1.00 43.92 C

ATOM 109 C GLY B 99 164.896 181.122 168.695 1.00 43.92 C
ATOM 110 O GLY B 99 165.941 180.504 168.478 1.00 43.92 O
ATOM 111 N THR B 100 164.602 182.265 168.084 1.00 43.38 N
ATOM 112 CA THR B 100 165.352 182.900 167.008 1.00 43.38 C
ATOM 113 C THR B 100 165.017 182.301 165.644 1.00 43.38 C
ATOM 114 O THR B 100 165.523 182.795 164.637 1.00 43.38 O
ATOM 115 CB THR B 100 166.879 182.839 167.209 1.00 43.38 C
ATOM 116 OG1 THR B 100 167.320 181.483 167.108 1.00 43.38 O
ATOM 117 CG2 THR B 100 167.257 183.378 168.569 1.00 43.38 C
ATOM 118 N ASP B 101 164.200 181.251 165.570 1.00 43.41 N
ATOM 119 CA ASP B 101 163.581 180.838 164.317 1.00 43.41 C
ATOM 120 C ASP B 101 162.619 179.682 164.558 1.00 43.41 C
ATOM 121 O ASP B 101 162.858 178.845 165.432 1.00 43.41 O
ATOM 122 CB ASP B 101 164.643 180.466 163.286 1.00 43.41 C
ATOM 123 CG ASP B 101 165.654 179.505 163.829 1.00 43.41 C
ATOM 124 OD1 ASP B 101 165.456 179.027 164.962 1.00 43.41 O
ATOM 125 OD2 ASP B 101 166.653 179.234 163.133 1.00 43.41 O
ATOM 126 N LEU B 102 161.541 179.616 163.783 1.00 42.15 N
ATOM 127 CA LEU B 102 160.475 178.652 164.000 1.00 42.15 C
ATOM 128 C LEU B 102 160.044 178.067 162.662 1.00 42.15 C
ATOM 129 O LEU B 102 160.313 178.639 161.606 1.00 42.15 O
ATOM 130 CB LEU B 102 159.286 179.312 164.706 1.00 42.15 C
ATOM 131 CG LEU B 102 159.662 180.323 165.793 1.00 42.15 C
ATOM 132 CD1 LEU B 102 158.467 181.154 166.203 1.00 42.15 C
ATOM 133 CD2 LEU B 102 160.246 179.623 166.997 1.00 42.15 C
ATOM 134 N ILE B 103 159.374 176.914 162.705 1.00 44.75 N
ATOM 135 CA ILE B 103 158.890 176.266 161.489 1.00 44.75 C
ATOM 136 C ILE B 103 157.650 175.441 161.806 1.00 44.75 C
ATOM 137 O ILE B 103 157.546 174.827 162.869 1.00 44.75 O
ATOM 138 CB ILE B 103 159.977 175.384 160.835 1.00 44.75 C
ATOM 139 CG1 ILE B 103 160.266 174.165 161.702 1.00 44.75 C
ATOM 140 CG2 ILE B 103 161.246 176.169 160.598 1.00 44.75 C
ATOM 141 CD1 ILE B 103 161.288 173.235 161.102 1.00 44.75 C
ATOM 142 N ARG B 104 156.705 175.435 160.865 1.00 52.23 N

ATOM 143 CA ARG B 104 155.449 174.695 160.908 1.00 52.23 C
ATOM 144 C ARG B 104 155.519 173.471 159.995 1.00 52.23 C
ATOM 145 O ARG B 104 156.585 173.106 159.493 1.00 52.23 O
ATOM 146 CB ARG B 104 154.292 175.605 160.511 1.00 52.23 C
ATOM 147 CG ARG B 104 153.936 176.649 161.529 1.00 52.23 C
ATOM 148 CD ARG B 104 152.649 177.319 161.118 1.00 52.23 C
ATOM 149 NE ARG B 104 152.715 177.783 159.738 1.00 52.23 N
ATOM 150 CZ ARG B 104 151.666 177.874 158.933 1.00 52.23 C
ATOM 151 NH1 ARG B 104 150.464 177.527 159.367 1.00 52.23 N
ATOM 152 NH2 ARG B 104 151.817 178.308 157.692 1.00 52.23 N
ATOM 153 N PHE B 105 154.362 172.826 159.780 1.00 59.53 N
ATOM 154 CA PHE B 105 154.275 171.669 158.892 1.00 59.53 C
ATOM 155 C PHE B 105 153.134 171.753 157.879 1.00 59.53 C
ATOM 156 O PHE B 105 152.702 170.715 157.372 1.00 59.53 O
ATOM 157 CB PHE B 105 154.140 170.369 159.687 1.00 59.53 C
ATOM 158 CG PHE B 105 155.430 169.867 160.262 1.00 59.53 C
ATOM 159 CD1 PHE B 105 156.314 169.146 159.476 1.00 59.53 C
ATOM 160 CD2 PHE B 105 155.752 170.097 161.585 1.00 59.53 C
ATOM 161 CE1 PHE B 105 157.495 168.675 159.997 1.00 59.53 C
ATOM 162 CE2 PHE B 105 156.934 169.628 162.113 1.00 59.53 C
ATOM 163 CZ PHE B 105 157.808 168.916 161.317 1.00 59.53 C
ATOM 164 N GLU B 106 152.630 172.947 157.567 1.00 71.98 N
ATOM 165 CA GLU B 106 151.853 173.170 156.343 1.00 71.98 C
ATOM 166 C GLU B 106 150.671 172.198 156.235 1.00 71.98 C
ATOM 167 O GLU B 106 150.666 171.259 155.439 1.00 71.98 O
ATOM 168 CB GLU B 106 152.746 173.083 155.102 1.00 71.98 C
ATOM 169 CG GLU B 106 151.991 173.281 153.797 1.00 71.98 C
ATOM 170 CD GLU B 106 151.017 174.449 153.840 1.00 71.98 C
ATOM 171 OE1 GLU B 106 151.074 175.253 154.792 1.00 71.98 O
ATOM 172 OE2 GLU B 106 150.185 174.561 152.916 1.00 71.98 O
ATOM 173 N ARG B 107 149.673 172.449 157.079 1.00 79.28 N
ATOM 174 CA ARG B 107 148.524 171.568 157.274 1.00 79.28 C
ATOM 175 C ARG B 107 148.041 170.818 156.033 1.00 79.28 C
ATOM 176 O ARG B 107 147.932 169.589 156.068 1.00 79.28 O

ATOM 177 CB ARG B 107 147.356 172.381 157.835 1.00 79.28 C
ATOM 178 CG ARG B 107 146.101 171.570 158.090 1.00 79.28 C
ATOM 179 CD ARG B 107 144.934 172.468 158.467 1.00 79.28 C
ATOM 180 NE ARG B 107 145.169 173.185 159.716 1.00 79.28 N
ATOM 181 CZ ARG B 107 145.687 174.407 159.790 1.00 79.28 C
ATOM 182 NH1 ARG B 107 145.865 174.985 160.971 1.00 79.28 N
ATOM 183 NH2 ARG B 107 146.028 175.052 158.684 1.00 79.28 N
ATOM 184 N ASN B 108 147.740 171.518 154.938 1.00 84.00 N
ATOM 185 CA ASN B 108 147.051 170.889 153.816 1.00 84.00 C
ATOM 186 C ASN B 108 147.741 171.222 152.499 1.00 84.00 C
ATOM 187 O ASN B 108 148.551 172.147 152.408 1.00 84.00 O
ATOM 188 CB ASN B 108 145.578 171.313 153.756 1.00 84.00 C
ATOM 189 CG ASN B 108 145.392 172.691 153.151 1.00 84.00 C
ATOM 190 OD1 ASN B 108 145.488 172.866 151.937 1.00 84.00 O
ATOM 191 ND2 ASN B 108 145.120 173.677 153.997 1.00 84.00 N
ATOM 192 N ILE B 109 147.389 170.458 151.467 1.00 86.09 N
ATOM 193 CA ILE B 109 147.943 170.630 150.127 1.00 86.09 C
ATOM 194 C ILE B 109 146.957 170.049 149.122 1.00 86.09 C
ATOM 195 O ILE B 109 146.271 169.063 149.404 1.00 86.09 O
ATOM 196 CB ILE B 109 149.331 169.959 149.999 1.00 86.09 C
ATOM 197 CG1 ILE B 109 150.387 170.735 150.783 1.00 86.09 C
ATOM 198 CG2 ILE B 109 149.731 169.838 148.538 1.00 86.09 C
ATOM 199 CD1 ILE B 109 151.705 170.010 150.886 1.00 86.09 C
ATOM 200 N VAL B 110 146.891 170.668 147.943 1.00 93.76 N
ATOM 201 CA VAL B 110 146.118 170.164 146.811 1.00 93.76 C
ATOM 202 C VAL B 110 147.009 170.208 145.577 1.00 93.76 C
ATOM 203 O VAL B 110 147.579 171.257 145.258 1.00 93.76 O
ATOM 204 CB VAL B 110 144.831 170.980 146.589 1.00 93.76 C
ATOM 205 CG1 VAL B 110 143.911 170.854 147.791 1.00 93.76 C
ATOM 206 CG2 VAL B 110 145.167 172.438 146.321 1.00 93.76 C
ATOM 207 N CYS B 111 147.130 169.073 144.881 1.00 98.50 N
ATOM 208 CA CYS B 111 148.136 168.977 143.823 1.00 98.50 C
ATOM 209 C CYS B 111 147.657 169.616 142.522 1.00 98.50 C
ATOM 210 O CYS B 111 148.144 170.678 142.122 1.00 98.50 O

ATOM 211 CB CYS B 111 148.505 167.507 143.586 1.00 98.50 C
ATOM 212 SG CYS B 111 149.766 166.814 144.683 1.00 98.50 S
ATOM 213 N THR B 112 146.691 168.984 141.853 1.00105.15 N
ATOM 214 CA THR B 112 146.146 169.521 140.611 1.00105.15 C
ATOM 215 C THR B 112 145.143 168.552 139.997 1.00105.15 C
ATOM 216 O THR B 112 144.945 167.448 140.514 1.00105.15 O
ATOM 217 CB THR B 112 147.262 169.832 139.614 1.00105.15 C
ATOM 218 OG1 THR B 112 146.730 170.596 138.527 1.00105.15 O
ATOM 219 CG2 THR B 112 147.859 168.547 139.077 1.00105.15 C
ATOM 220 N SER B 113 144.503 168.955 138.897 1.00107.97 N
ATOM 221 CA SER B 113 143.715 168.043 138.058 1.00107.97 C
ATOM 222 C SER B 113 144.076 168.346 136.604 1.00107.97 C
ATOM 223 O SER B 113 143.403 169.137 135.939 1.00107.97 O
ATOM 224 CB SER B 113 142.222 168.197 138.316 1.00107.97 C
ATOM 225 OG SER B 113 141.464 167.734 137.212 1.00107.97 O
ATOM 226 N MET B 114 145.142 167.714 136.117 1.00105.04 N
ATOM 227 CA MET B 114 145.680 168.023 134.791 1.00105.04 C
ATOM 228 C MET B 114 145.172 167.074 133.708 1.00105.04 C
ATOM 229 O MET B 114 145.960 166.530 132.937 1.00105.04 O
ATOM 230 CB MET B 114 147.204 168.007 134.841 1.00105.04 C
ATOM 231 CG MET B 114 147.817 169.128 135.657 1.00105.04 C
ATOM 232 SD MET B 114 149.617 169.084 135.655 1.00105.04 S
ATOM 233 CE MET B 114 149.924 167.719 136.772 1.00105.04 C
ATOM 234 N LYS B 115 143.861 166.852 133.627 1.00111.43 N
ATOM 235 CA LYS B 115 143.341 166.229 132.414 1.00111.43 C
ATOM 236 C LYS B 115 141.972 166.781 132.026 1.00111.43 C
ATOM 237 O LYS B 115 141.098 166.011 131.608 1.00111.43 O
ATOM 238 CB LYS B 115 143.272 164.710 132.602 1.00111.43 C
ATOM 239 CG LYS B 115 142.392 164.248 133.761 1.00111.43 C
ATOM 240 CD LYS B 115 140.968 163.948 133.324 1.00111.43 C
ATOM 241 CE LYS B 115 140.134 163.419 134.478 1.00111.43 C
ATOM 242 NZ LYS B 115 138.727 163.152 134.069 1.00111.43 N
ATOM 243 N PRO B 116 141.745 168.097 132.103 1.00118.44 N
ATOM 244 CA PRO B 116 140.404 168.610 131.796 1.00118.44 C

ATOM 245 C PRO B 116 140.123 168.828 130.316 1.00118.44 C
ATOM 246 O PRO B 116 139.050 168.457 129.827 1.00118.44 O
ATOM 247 CB PRO B 116 140.363 169.948 132.553 1.00118.44 C
ATOM 248 CG PRO B 116 141.642 169.999 133.375 1.00118.44 C
ATOM 249 CD PRO B 116 142.612 169.167 132.614 1.00118.44 C
ATOM 250 N ILE B 117 141.073 169.412 129.593 1.00120.01 N
ATOM 251 CA ILE B 117 140.774 170.047 128.312 1.00120.01 C
ATOM 252 C ILE B 117 142.077 170.369 127.597 1.00120.01 C
ATOM 253 O ILE B 117 143.150 170.363 128.210 1.00120.01 O
ATOM 254 CB ILE B 117 139.909 171.315 128.544 1.00120.01 C
ATOM 255 CG1 ILE B 117 139.660 172.063 127.232 1.00120.01 C
ATOM 256 CG2 ILE B 117 140.558 172.206 129.581 1.00120.01 C
ATOM 257 CD1 ILE B 117 138.751 173.261 127.377 1.00120.01 C
ATOM 258 N ASN B 118 141.980 170.653 126.295 1.00118.26 N
ATOM 259 CA ASN B 118 143.077 171.206 125.499 1.00118.26 C
ATOM 260 C ASN B 118 144.239 170.217 125.373 1.00118.26 C
ATOM 261 O ASN B 118 145.351 170.439 125.857 1.00118.26 O
ATOM 262 CB ASN B 118 143.556 172.537 126.092 1.00118.26 C
ATOM 263 CG ASN B 118 142.779 173.727 125.563 1.00118.26 C
ATOM 264 OD1 ASN B 118 143.199 174.382 124.610 1.00118.26 O
ATOM 265 ND2 ASN B 118 141.645 174.018 126.187 1.00118.26 N
ATOM 266 N GLU B 119 143.945 169.103 124.700 1.00108.93 N
ATOM 267 CA GLU B 119 144.968 168.117 124.352 1.00108.93 C
ATOM 268 C GLU B 119 145.824 168.663 123.207 1.00108.93 C
ATOM 269 O GLU B 119 145.844 168.149 122.087 1.00108.93 O
ATOM 270 CB GLU B 119 144.327 166.786 123.988 1.00108.93 C
ATOM 271 CG GLU B 119 145.149 165.567 124.381 1.00108.93 C
ATOM 272 CD GLU B 119 146.370 165.368 123.504 1.00108.93 C
ATOM 273 OE1 GLU B 119 146.310 165.710 122.306 1.00108.93 O
ATOM 274 OE2 GLU B 119 147.391 164.861 124.012 1.00108.93 O
ATOM 275 N ASP B 120 146.535 169.753 123.512 1.00107.36 N
ATOM 276 CA ASP B 120 147.503 170.347 122.597 1.00107.36 C
ATOM 277 C ASP B 120 148.734 170.830 123.352 1.00107.36 C
ATOM 278 O ASP B 120 149.355 171.827 122.968 1.00107.36 O

ATOM 279 CB ASP B 120 146.882 171.499 121.807 1.00107.36 C
ATOM 280 CG ASP B 120 146.173 172.497 122.695 1.00107.36 C
ATOM 281 OD1 ASP B 120 145.125 172.141 123.272 1.00107.36 O
ATOM 282 OD2 ASP B 120 146.663 173.638 122.816 1.00107.36 O
ATOM 283 N LEU B 121 149.099 170.130 124.421 1.00 94.83 N
ATOM 284 CA LEU B 121 150.122 170.608 125.338 1.00 94.83 C
ATOM 285 C LEU B 121 151.457 170.826 124.631 1.00 94.83 C
ATOM 286 O LEU B 121 151.769 170.188 123.624 1.00 94.83 O
ATOM 287 CB LEU B 121 150.278 169.619 126.493 1.00 94.83 C
ATOM 288 CG LEU B 121 150.871 168.253 126.166 1.00 94.83 C
ATOM 289 CD1 LEU B 121 151.243 167.526 127.439 1.00 94.83 C
ATOM 290 CD2 LEU B 121 149.886 167.432 125.365 1.00 94.83 C
ATOM 291 N ASP B 122 152.244 171.746 125.183 1.00 95.17 N
ATOM 292 CA ASP B 122 153.533 172.182 124.655 1.00 95.17 C
ATOM 293 C ASP B 122 154.625 171.901 125.687 1.00 95.17 C
ATOM 294 O ASP B 122 154.358 171.421 126.791 1.00 95.17 O
ATOM 295 CB ASP B 122 153.481 173.670 124.289 1.00 95.17 C
ATOM 296 CG ASP B 122 154.695 174.127 123.507 1.00 95.17 C
ATOM 297 OD1 ASP B 122 155.801 173.612 123.767 1.00 95.17 O
ATOM 298 OD2 ASP B 122 154.547 175.009 122.635 1.00 95.17 O
ATOM 299 N GLU B 123 155.867 172.213 125.322 1.00 95.33 N
ATOM 300 CA GLU B 123 157.031 171.962 126.164 1.00 95.33 C
ATOM 301 C GLU B 123 157.904 173.212 126.222 1.00 95.33 C
ATOM 302 O GLU B 123 157.585 174.248 125.631 1.00 95.33 O
ATOM 303 CB GLU B 123 157.827 170.759 125.647 1.00 95.33 C
ATOM 304 CG GLU B 123 158.157 170.835 124.170 1.00 95.33 C
ATOM 305 CD GLU B 123 158.865 169.595 123.669 1.00 95.33 C
ATOM 306 OE1 GLU B 123 159.145 168.696 124.489 1.00 95.33 O
ATOM 307 OE2 GLU B 123 159.142 169.515 122.454 1.00 95.33 O
ATOM 308 N GLY B 124 159.013 173.113 126.947 1.00 89.93 N
ATOM 309 CA GLY B 124 159.929 174.229 127.064 1.00 89.93 C
ATOM 310 C GLY B 124 160.902 174.022 128.208 1.00 89.93 C
ATOM 311 O GLY B 124 160.949 172.955 128.825 1.00 89.93 O
ATOM 312 N ILE B 125 161.679 175.073 128.474 1.00 87.86 N

ATOM 313 CA ILE B 125 162.669 175.102 129.545 1.00 87.86 C
ATOM 314 C ILE B 125 162.342 176.265 130.468 1.00 87.86 C
ATOM 315 O ILE B 125 161.994 177.355 130.003 1.00 87.86 O
ATOM 316 CB ILE B 125 164.101 175.245 128.994 1.00 87.86 C
ATOM 317 CG1 ILE B 125 164.160 176.399 127.994 1.00 87.86 C
ATOM 318 CG2 ILE B 125 164.553 173.957 128.347 1.00 87.86 C
ATOM 319 CD1 ILE B 125 165.499 176.551 127.318 1.00 87.86 C
ATOM 320 N MET B 126 162.466 176.040 131.774 1.00 85.46 N
ATOM 321 CA MET B 126 162.060 177.031 132.758 1.00 85.46 C
ATOM 322 C MET B 126 163.032 177.044 133.927 1.00 85.46 C
ATOM 323 O MET B 126 163.684 176.041 134.223 1.00 85.46 O
ATOM 324 CB MET B 126 160.644 176.754 133.271 1.00 85.46 C
ATOM 325 CG MET B 126 160.545 175.512 134.133 1.00 85.46 C
ATOM 326 SD MET B 126 158.960 175.363 134.971 1.00 85.46 S
ATOM 327 CE MET B 126 159.275 173.959 136.033 1.00 85.46 C
ATOM 328 N VAL B 127 163.122 178.199 134.585 1.00 84.75 N
ATOM 329 CA VAL B 127 163.854 178.358 135.838 1.00 84.75 C
ATOM 330 C VAL B 127 162.949 179.107 136.805 1.00 84.75 C
ATOM 331 O VAL B 127 162.539 180.240 136.527 1.00 84.75 O
ATOM 332 CB VAL B 127 165.184 179.105 135.650 1.00 84.75 C
ATOM 333 CG1 VAL B 127 166.059 178.374 134.655 1.00 84.75 C
ATOM 334 CG2 VAL B 127 164.937 180.528 135.195 1.00 84.75 C
ATOM 335 N VAL B 128 162.634 178.477 137.931 1.00 89.98 N
ATOM 336 CA VAL B 128 161.685 179.015 138.896 1.00 89.98 C
ATOM 337 C VAL B 128 162.422 179.395 140.169 1.00 89.98 C
ATOM 338 O VAL B 128 163.440 178.793 140.522 1.00 89.98 O
ATOM 339 CB VAL B 128 160.569 177.997 139.207 1.00 89.98 C
ATOM 340 CG1 VAL B 128 161.162 176.762 139.846 1.00 89.98 C
ATOM 341 CG2 VAL B 128 159.539 178.612 140.127 1.00 89.98 C
ATOM 342 N TYR B 129 161.897 180.399 140.867 1.00 91.70 N
ATOM 343 CA TYR B 129 162.360 180.684 142.216 1.00 91.70 C
ATOM 344 C TYR B 129 161.288 181.446 142.981 1.00 91.70 C
ATOM 345 O TYR B 129 160.304 181.924 142.414 1.00 91.70 O
ATOM 346 CB TYR B 129 163.690 181.441 142.226 1.00 91.70 C

ATOM 347 CG TYR B 129 163.845 182.555 141.225 1.00 91.70 C
ATOM 348 CD1 TYR B 129 163.186 183.759 141.388 1.00 91.70 C
ATOM 349 CD2 TYR B 129 164.691 182.414 140.139 1.00 91.70 C
ATOM 350 CE1 TYR B 129 163.350 184.780 140.486 1.00 91.70 C
ATOM 351 CE2 TYR B 129 164.860 183.428 139.235 1.00 91.70 C
ATOM 352 CZ TYR B 129 164.188 184.609 139.411 1.00 91.70 C
ATOM 353 OH TYR B 129 164.355 185.625 138.503 1.00 91.70 O
ATOM 354 N LYS B 130 161.501 181.547 144.291 1.00 95.82 N
ATOM 355 CA LYS B 130 160.507 181.975 145.259 1.00 95.82 C
ATOM 356 C LYS B 130 160.899 183.310 145.888 1.00 95.82 C
ATOM 357 O LYS B 130 161.864 183.962 145.475 1.00 95.82 O
ATOM 358 CB LYS B 130 160.328 180.886 146.316 1.00 95.82 C
ATOM 359 CG LYS B 130 161.580 180.624 147.126 1.00 95.82 C
ATOM 360 CD LYS B 130 161.395 179.461 148.080 1.00 95.82 C
ATOM 361 CE LYS B 130 162.642 179.246 148.921 1.00 95.82 C
ATOM 362 NZ LYS B 130 163.803 178.808 148.103 1.00 95.82 N
ATOM 363 N ARG B 131 160.135 183.718 146.898 1.00 99.74 N
ATOM 364 CA ARG B 131 160.310 184.999 147.568 1.00 99.74 C
ATOM 365 C ARG B 131 160.950 184.786 148.932 1.00 99.74 C
ATOM 366 O ARG B 131 160.506 183.932 149.704 1.00 99.74 O
ATOM 367 CB ARG B 131 158.968 185.717 147.719 1.00 99.74 C
ATOM 368 CG ARG B 131 159.053 187.032 148.467 1.00 99.74 C
ATOM 369 CD ARG B 131 157.887 187.941 148.126 1.00 99.74 C
ATOM 370 NE ARG B 131 157.952 189.204 148.855 1.00 99.74 N
ATOM 371 CZ ARG B 131 158.766 190.207 148.541 1.00 99.74 C
ATOM 372 NH1 ARG B 131 158.759 191.319 149.262 1.00 99.74 N
ATOM 373 NH2 ARG B 131 159.592 190.095 147.510 1.00 99.74 N
ATOM 374 N ASN B 132 161.993 185.563 149.222 1.00 97.19 N
ATOM 375 CA ASN B 132 162.698 185.478 150.493 1.00 97.19 C
ATOM 376 C ASN B 132 163.213 186.854 150.888 1.00 97.19 C
ATOM 377 O ASN B 132 163.637 187.643 150.039 1.00 97.19 O
ATOM 378 CB ASN B 132 163.865 184.489 150.428 1.00 97.19 C
ATOM 379 CG ASN B 132 163.464 183.095 150.844 1.00 97.19 C
ATOM 380 OD1 ASN B 132 162.592 182.917 151.693 1.00 97.19 O

ATOM 381 ND2 ASN B 132 164.099 182.094 150.248 1.00 97.19 N
ATOM 382 N ILE B 133 163.176 187.131 152.190 1.00 87.69 N
ATOM 383 CA ILE B 133 163.698 188.370 152.752 1.00 87.69 C
ATOM 384 C ILE B 133 164.739 188.025 153.808 1.00 87.69 C
ATOM 385 O ILE B 133 164.653 186.995 154.483 1.00 87.69 O
ATOM 386 CB ILE B 133 162.583 189.252 153.349 1.00 87.69 C
ATOM 387 CG1 ILE B 133 161.648 189.750 152.247 1.00 87.69 C
ATOM 388 CG2 ILE B 133 163.176 190.424 154.102 1.00 87.69 C
ATOM 389 CD1 ILE B 133 160.450 188.862 152.024 1.00 87.69 C
ATOM 390 N VAL B 134 165.731 188.903 153.948 1.00 75.15 N
ATOM 391 CA VAL B 134 166.871 188.665 154.827 1.00 75.15 C
ATOM 392 C VAL B 134 166.507 188.953 156.279 1.00 75.15 C
ATOM 393 O VAL B 134 165.498 189.607 156.564 1.00 75.15 O
ATOM 394 CB VAL B 134 168.080 189.511 154.391 1.00 75.15 C
ATOM 395 CG1 VAL B 134 168.532 189.103 153.003 1.00 75.15 C
ATOM 396 CG2 VAL B 134 167.725 190.984 154.420 1.00 75.15 C
ATOM 397 N ALA B 135 167.330 188.461 157.202 1.00 58.42 N
ATOM 398 CA ALA B 135 167.170 188.678 158.628 1.00 58.42 C
ATOM 399 C ALA B 135 168.175 189.726 159.103 1.00 58.42 C
ATOM 400 O ALA B 135 168.823 190.405 158.304 1.00 58.42 O
ATOM 401 CB ALA B 135 167.322 187.354 159.375 1.00 58.42 C
ATOM 402 N HIS B 136 168.307 189.869 160.420 1.00 49.38 N
ATOM 403 CA HIS B 136 169.187 190.876 160.994 1.00 49.38 C
ATOM 404 C HIS B 136 169.718 190.359 162.326 1.00 49.38 C
ATOM 405 O HIS B 136 168.978 189.730 163.083 1.00 49.38 O
ATOM 406 CB HIS B 136 168.434 192.195 161.180 1.00 49.38 C
ATOM 407 CG HIS B 136 169.298 193.409 161.067 1.00 49.38 C
ATOM 408 ND1 HIS B 136 168.946 194.625 161.609 1.00 49.38 N
ATOM 409 CD2 HIS B 136 170.492 193.599 160.459 1.00 49.38 C
ATOM 410 CE1 HIS B 136 169.892 195.509 161.352 1.00 49.38 C
ATOM 411 NE2 HIS B 136 170.841 194.913 160.654 1.00 49.38 N
ATOM 412 N THR B 137 170.998 190.619 162.609 1.00 42.77 N
ATOM 413 CA THR B 137 171.630 190.161 163.845 1.00 42.77 C
ATOM 414 C THR B 137 172.531 191.257 164.397 1.00 42.77 C

ATOM 415 O THR B 137 173.391 191.765 163.672 1.00 42.77 O
ATOM 416 CB THR B 137 172.442 188.886 163.604 1.00 42.77 C
ATOM 417 OG1 THR B 137 173.666 189.222 162.947 1.00 42.77 O
ATOM 418 CG2 THR B 137 171.667 187.921 162.727 1.00 42.77 C
ATOM 419 N PHE B 138 172.348 191.626 165.682 1.00 42.36 N
ATOM 420 CA PHE B 138 173.000 192.842 166.161 1.00 42.36 C
ATOM 421 C PHE B 138 173.565 192.805 167.587 1.00 42.36 C
ATOM 422 O PHE B 138 173.810 193.874 168.157 1.00 42.36 O
ATOM 423 CB PHE B 138 172.039 194.023 166.042 1.00 42.36 C
ATOM 424 CG PHE B 138 170.686 193.762 166.618 1.00 42.36 C
ATOM 425 CD1 PHE B 138 169.763 193.009 165.928 1.00 42.36 C
ATOM 426 CD2 PHE B 138 170.335 194.280 167.845 1.00 42.36 C
ATOM 427 CE1 PHE B 138 168.524 192.772 166.451 1.00 42.36 C
ATOM 428 CE2 PHE B 138 169.095 194.046 168.371 1.00 42.36 C
ATOM 429 CZ PHE B 138 168.188 193.290 167.674 1.00 42.36 C
ATOM 430 N LYS B 139 173.793 191.640 168.192 1.00 37.90 N
ATOM 431 CA LYS B 139 174.711 191.538 169.334 1.00 37.90 C
ATOM 432 C LYS B 139 174.292 192.434 170.510 1.00 37.90 C
ATOM 433 O LYS B 139 174.924 193.447 170.808 1.00 37.90 O
ATOM 434 CB LYS B 139 176.136 191.871 168.882 1.00 37.90 C
ATOM 435 CG LYS B 139 177.193 191.707 169.955 1.00 37.90 C
ATOM 436 CD LYS B 139 177.397 190.246 170.311 1.00 37.90 C
ATOM 437 CE LYS B 139 178.054 189.477 169.178 1.00 37.90 C
ATOM 438 NZ LYS B 139 179.493 189.821 169.039 1.00 37.90 N
ATOM 439 N VAL B 140 173.192 192.049 171.166 1.00 36.42 N
ATOM 440 CA VAL B 140 172.677 192.778 172.329 1.00 36.42 C
ATOM 441 C VAL B 140 173.379 192.360 173.621 1.00 36.42 C
ATOM 442 O VAL B 140 174.061 191.332 173.665 1.00 36.42 O
ATOM 443 CB VAL B 140 171.158 192.582 172.476 1.00 36.42 C
ATOM 444 CG1 VAL B 140 170.441 193.048 171.233 1.00 36.42 C
ATOM 445 CG2 VAL B 140 170.836 191.139 172.768 1.00 36.42 C
ATOM 446 N ARG B 141 173.204 193.154 174.684 1.00 37.17 N
ATOM 447 CA ARG B 141 173.766 192.893 176.006 1.00 37.17 C
ATOM 448 C ARG B 141 172.660 192.818 177.051 1.00 37.17 C

ATOM 449 O ARG B 141 171.590 193.406 176.882 1.00 37.17 O
ATOM 450 CB ARG B 141 174.755 193.979 176.432 1.00 37.17 C
ATOM 451 CG ARG B 141 175.963 194.118 175.546 1.00 37.17 C
ATOM 452 CD ARG B 141 176.787 195.317 175.963 1.00 37.17 C
ATOM 453 NE ARG B 141 176.116 196.571 175.644 1.00 37.17 N
ATOM 454 CZ ARG B 141 176.256 197.221 174.495 1.00 37.17 C
ATOM 455 NH1 ARG B 141 177.049 196.735 173.551 1.00 37.17 N
ATOM 456 NH2 ARG B 141 175.605 198.355 174.289 1.00 37.17 N
ATOM 457 N VAL B 142 172.930 192.103 178.144 1.00 35.61 N
ATOM 458 CA VAL B 142 171.971 191.914 179.228 1.00 35.61 C
ATOM 459 C VAL B 142 172.672 192.111 180.564 1.00 35.61 C
ATOM 460 O VAL B 142 173.771 191.590 180.778 1.00 35.61 O
ATOM 461 CB VAL B 142 171.319 190.518 179.179 1.00 35.61 C
ATOM 462 CG1 VAL B 142 170.317 190.374 180.296 1.00 35.61 C
ATOM 463 CG2 VAL B 142 170.657 190.286 177.843 1.00 35.61 C
ATOM 464 N TYR B 143 172.038 192.854 181.465 1.00 41.95 N
ATOM 465 CA TYR B 143 172.524 193.035 182.824 1.00 41.95 C
ATOM 466 C TYR B 143 171.603 192.317 183.800 1.00 41.95 C
ATOM 467 O TYR B 143 170.451 192.014 183.487 1.00 41.95 O
ATOM 468 CB TYR B 143 172.617 194.519 183.192 1.00 41.95 C
ATOM 469 CG TYR B 143 173.500 195.329 182.278 1.00 41.95 C
ATOM 470 CD1 TYR B 143 173.024 195.818 181.077 1.00 41.95 C
ATOM 471 CD2 TYR B 143 174.810 195.608 182.619 1.00 41.95 C
ATOM 472 CE1 TYR B 143 173.825 196.558 180.241 1.00 41.95 C
ATOM 473 CE2 TYR B 143 175.618 196.347 181.788 1.00 41.95 C
ATOM 474 CZ TYR B 143 175.121 196.820 180.600 1.00 41.95 C
ATOM 475 OH TYR B 143 175.924 197.561 179.766 1.00 41.95 O
ATOM 476 N GLN B 144 172.120 192.046 184.995 1.00 48.15 N
ATOM 477 CA GLN B 144 171.372 191.277 185.984 1.00 48.15 C
ATOM 478 C GLN B 144 172.187 191.232 187.269 1.00 48.15 C
ATOM 479 O GLN B 144 173.357 191.623 187.298 1.00 48.15 O
ATOM 480 CB GLN B 144 171.073 189.869 185.484 1.00 48.15 C
ATOM 481 CG GLN B 144 170.055 189.120 186.301 1.00 48.15 C
ATOM 482 CD GLN B 144 169.445 187.972 185.533 1.00 48.15 C

ATOM 483 OE1 GLN B 144 170.069 187.411 184.636 1.00 48.15 O
ATOM 484 NE2 GLN B 144 168.217 187.618 185.876 1.00 48.15 N
ATOM 485 N LYS B 145 171.556 190.740 188.334 1.00 55.95 N
ATOM 486 CA LYS B 145 172.198 190.693 189.646 1.00 55.95 C
ATOM 487 C LYS B 145 171.477 189.663 190.499 1.00 55.95 C
ATOM 488 O LYS B 145 170.280 189.811 190.758 1.00 55.95 O
ATOM 489 CB LYS B 145 172.166 192.064 190.310 1.00 55.95 C
ATOM 490 CG LYS B 145 172.836 192.114 191.659 1.00 55.95 C
ATOM 491 CD LYS B 145 172.417 193.353 192.418 1.00 55.95 C
ATOM 492 CE LYS B 145 173.246 194.552 192.016 1.00 55.95 C
ATOM 493 NZ LYS B 145 174.638 194.446 192.507 1.00 55.95 N
ATOM 494 N VAL B 146 172.196 188.631 190.934 1.00 61.82 N
ATOM 495 CA VAL B 146 171.622 187.520 191.686 1.00 61.82 C
ATOM 496 C VAL B 146 172.034 187.637 193.146 1.00 61.82 C
ATOM 497 O VAL B 146 173.160 188.040 193.454 1.00 61.82 O
ATOM 498 CB VAL B 146 172.064 186.161 191.112 1.00 61.82 C
ATOM 499 CG1 VAL B 146 171.521 185.032 191.960 1.00 61.82 C
ATOM 500 CG2 VAL B 146 171.600 186.016 189.681 1.00 61.82 C
ATOM 501 N LEU B 147 171.116 187.278 194.043 1.00 71.75 N
ATOM 502 CA LEU B 147 171.400 187.250 195.471 1.00 71.75 C
ATOM 503 C LEU B 147 170.638 186.089 196.090 1.00 71.75 C
ATOM 504 O LEU B 147 169.416 185.998 195.937 1.00 71.75 O
ATOM 505 CB LEU B 147 171.020 188.572 196.146 1.00 71.75 C
ATOM 506 CG LEU B 147 169.539 188.860 196.372 1.00 71.75 C
ATOM 507 CD1 LEU B 147 169.377 190.001 197.352 1.00 71.75 C
ATOM 508 CD2 LEU B 147 168.861 189.189 195.066 1.00 71.75 C
ATOM 509 N THR B 148 171.356 185.214 196.791 1.00 80.47 N
ATOM 510 CA THR B 148 170.827 183.943 197.265 1.00 80.47 C
ATOM 511 C THR B 148 170.837 183.882 198.786 1.00 80.47 C
ATOM 512 O THR B 148 171.760 184.388 199.433 1.00 80.47 O
ATOM 513 CB THR B 148 171.637 182.778 196.703 1.00 80.47 C
ATOM 514 OG1 THR B 148 171.178 181.552 197.283 1.00 80.47 O
ATOM 515 CG2 THR B 148 173.105 182.963 197.012 1.00 80.47 C
ATOM 516 N PHE B 149 169.807 183.253 199.348 1.00 84.21 N

ATOM 517 CA PHE B 149 169.642 183.094 200.785 1.00 84.21 C
ATOM 518 C PHE B 149 169.884 181.645 201.188 1.00 84.21 C
ATOM 519 O PHE B 149 169.800 180.726 200.369 1.00 84.21 O
ATOM 520 CB PHE B 149 168.240 183.523 201.226 1.00 84.21 C
ATOM 521 CG PHE B 149 167.926 184.959 200.932 1.00 84.21 C
ATOM 522 CD1 PHE B 149 168.687 185.973 201.481 1.00 84.21 C
ATOM 523 CD2 PHE B 149 166.869 185.294 200.109 1.00 84.21 C
ATOM 524 CE1 PHE B 149 168.398 187.294 201.214 1.00 84.21 C
ATOM 525 CE2 PHE B 149 166.577 186.613 199.839 1.00 84.21 C
ATOM 526 CZ PHE B 149 167.343 187.614 200.392 1.00 84.21 C
ATOM 527 N ARG B 150 170.182 181.447 202.469 1.00 95.49 N
ATOM 528 CA ARG B 150 170.491 180.114 202.965 1.00 95.49 C
ATOM 529 C ARG B 150 170.576 180.157 204.483 1.00 95.49 C
ATOM 530 O ARG B 150 171.030 181.149 205.060 1.00 95.49 O
ATOM 531 CB ARG B 150 171.803 179.597 202.366 1.00 95.49 C
ATOM 532 CG ARG B 150 172.386 178.393 203.072 1.00 95.49 C
ATOM 533 CD ARG B 150 173.666 177.941 202.396 1.00 95.49 C
ATOM 534 NE ARG B 150 173.415 177.429 201.054 1.00 95.49 N
ATOM 535 CZ ARG B 150 173.624 178.124 199.941 1.00 95.49 C
ATOM 536 NH1 ARG B 150 174.092 179.362 200.011 1.00 95.49 N
ATOM 537 NH2 ARG B 150 173.368 177.581 198.759 1.00 95.49 N
ATOM 538 N ARG B 151 170.139 179.071 205.120 1.00 94.21 N
ATOM 539 CA ARG B 151 170.153 178.970 206.573 1.00 94.21 C
ATOM 540 C ARG B 151 170.418 177.526 206.976 1.00 94.21 C
ATOM 541 O ARG B 151 169.981 176.591 206.301 1.00 94.21 O
ATOM 542 CB ARG B 151 168.838 179.461 207.183 1.00 94.21 C
ATOM 543 CG ARG B 151 167.604 178.788 206.626 1.00 94.21 C
ATOM 544 CD ARG B 151 166.406 179.715 206.699 1.00 94.21 C
ATOM 545 NE ARG B 151 165.143 178.987 206.635 1.00 94.21 N
ATOM 546 CZ ARG B 151 164.600 178.530 205.512 1.00 94.21 C
ATOM 547 NH1 ARG B 151 165.210 178.722 204.352 1.00 94.21 N
ATOM 548 NH2 ARG B 151 163.447 177.879 205.550 1.00 94.21 N
ATOM 549 N SER B 152 171.135 177.353 208.087 1.00 94.56 N
ATOM 550 CA SER B 152 171.565 176.030 208.516 1.00 94.56 C

ATOM 551 C SER B 152 171.725 175.996 210.030 1.00 94.56 C
ATOM 552 O SER B 152 171.658 177.022 210.710 1.00 94.56 O
ATOM 553 CB SER B 152 172.877 175.631 207.837 1.00 94.56 C
ATOM 554 OG SER B 152 173.944 176.438 208.297 1.00 94.56 O
ATOM 555 N TYR B 153 171.946 174.785 210.548 1.00 95.70 N
ATOM 556 CA TYR B 153 172.181 174.530 211.963 1.00 95.70 C
ATOM 557 C TYR B 153 173.412 173.644 212.109 1.00 95.70 C
ATOM 558 O TYR B 153 173.567 172.663 211.377 1.00 95.70 O
ATOM 559 CB TYR B 153 170.969 173.857 212.618 1.00 95.70 C
ATOM 560 CG TYR B 153 170.974 173.909 214.128 1.00 95.70 C
ATOM 561 CD1 TYR B 153 171.893 173.180 214.864 1.00 95.70 C
ATOM 562 CD2 TYR B 153 170.055 174.683 214.818 1.00 95.70 C
ATOM 563 CE1 TYR B 153 171.901 173.223 216.239 1.00 95.70 C
ATOM 564 CE2 TYR B 153 170.057 174.733 216.193 1.00 95.70 C
ATOM 565 CZ TYR B 153 170.982 174.000 216.898 1.00 95.70 C
ATOM 566 OH TYR B 153 170.990 174.045 218.270 1.00 95.70 O
ATOM 567 N ALA B 154 174.278 173.988 213.058 1.00100.46 N
ATOM 568 CA ALA B 154 175.589 173.362 213.194 1.00100.46 C
ATOM 569 C ALA B 154 175.647 172.524 214.466 1.00100.46 C
ATOM 570 O ALA B 154 175.480 173.054 215.569 1.00100.46 O
ATOM 571 CB ALA B 154 176.691 174.422 213.205 1.00100.46 C
ATOM 572 N TYR B 155 175.888 171.223 214.308 1.00100.44 N
ATOM 573 CA TYR B 155 176.118 170.331 215.438 1.00100.44 C
ATOM 574 C TYR B 155 177.608 170.276 215.763 1.00100.44 C
ATOM 575 O TYR B 155 178.414 171.067 215.267 1.00100.44 O
ATOM 576 CB TYR B 155 175.578 168.932 215.152 1.00100.44 C
ATOM 577 CG TYR B 155 174.082 168.800 215.260 1.00100.44 C
ATOM 578 CD1 TYR B 155 173.329 169.758 215.918 1.00100.44 C
ATOM 579 CD2 TYR B 155 173.422 167.715 214.707 1.00100.44 C
ATOM 580 CE1 TYR B 155 171.960 169.640 216.019 1.00100.44 C
ATOM 581 CE2 TYR B 155 172.055 167.588 214.802 1.00100.44 C
ATOM 582 CZ TYR B 155 171.327 168.551 215.457 1.00100.44 C
ATOM 583 OH TYR B 155 169.961 168.411 215.542 1.00100.44 O
ATOM 584 N ILE B 156 177.983 169.325 216.619 1.00105.50 N

ATOM 585 CA ILE B 156 179.388 169.063 216.895 1.00105.50 C
ATOM 586 C ILE B 156 180.006 168.101 215.889 1.00105.50 C
ATOM 587 O ILE B 156 181.240 168.032 215.789 1.00105.50 O
ATOM 588 CB ILE B 156 179.573 168.494 218.311 1.00105.50 C
ATOM 589 CG1 ILE B 156 178.708 169.261 219.311 1.00105.50 C
ATOM 590 CG2 ILE B 156 181.035 168.543 218.713 1.00105.50 C
ATOM 591 CD1 ILE B 156 178.390 168.475 220.562 1.00105.50 C
ATOM 592 N HIS B 157 179.191 167.351 215.151 1.00109.14 N
ATOM 593 CA HIS B 157 179.679 166.367 214.194 1.00109.14 C
ATOM 594 C HIS B 157 179.365 166.736 212.753 1.00109.14 C
ATOM 595 O HIS B 157 180.275 166.825 211.924 1.00109.14 O
ATOM 596 CB HIS B 157 179.084 164.990 214.517 1.00109.14 C
ATOM 597 CG HIS B 157 180.012 163.850 214.237 1.00109.14 C
ATOM 598 ND1 HIS B 157 181.204 163.679 214.907 1.00109.14 N
ATOM 599 CD2 HIS B 157 179.921 162.822 213.361 1.00109.14 C
ATOM 600 CE1 HIS B 157 181.808 162.595 214.455 1.00109.14 C
ATOM 601 NE2 HIS B 157 181.051 162.056 213.516 1.00109.14 N
ATOM 602 N THR B 158 178.096 166.954 212.432 1.00105.54 N
ATOM 603 CA THR B 158 177.659 167.262 211.081 1.00105.54 C
ATOM 604 C THR B 158 177.127 168.691 211.013 1.00105.54 C
ATOM 605 O THR B 158 177.199 169.456 211.981 1.00105.54 O
ATOM 606 CB THR B 158 176.610 166.249 210.622 1.00105.54 C
ATOM 607 OG1 THR B 158 175.485 166.289 211.508 1.00105.54 O
ATOM 608 CG2 THR B 158 177.192 164.845 210.612 1.00105.54 C
ATOM 609 N THR B 159 176.593 169.055 209.850 1.00103.39 N
ATOM 610 CA THR B 159 176.000 170.371 209.644 1.00103.39 C
ATOM 611 C THR B 159 174.837 170.221 208.679 1.00103.39 C
ATOM 612 O THR B 159 175.029 169.772 207.545 1.00103.39 O
ATOM 613 CB THR B 159 177.028 171.363 209.099 1.00103.39 C
ATOM 614 OG1 THR B 159 178.213 171.312 209.901 1.00103.39 O
ATOM 615 CG2 THR B 159 176.468 172.774 209.121 1.00103.39 C
ATOM 616 N TYR B 160 173.643 170.592 209.122 1.00 98.20 N
ATOM 617 CA TYR B 160 172.436 170.438 208.328 1.00 98.20 C
ATOM 618 C TYR B 160 172.041 171.763 207.690 1.00 98.20 C

ATOM 619 O TYR B 160 172.451 172.839 208.128 1.00 98.20 O
ATOM 620 CB TYR B 160 171.287 169.904 209.186 1.00 98.20 C
ATOM 621 CG TYR B 160 171.532 168.515 209.727 1.00 98.20 C
ATOM 622 CD1 TYR B 160 172.472 168.294 210.723 1.00 98.20 C
ATOM 623 CD2 TYR B 160 170.824 167.426 209.243 1.00 98.20 C
ATOM 624 CE1 TYR B 160 172.699 167.030 211.219 1.00 98.20 C
ATOM 625 CE2 TYR B 160 171.047 166.157 209.734 1.00 98.20 C
ATOM 626 CZ TYR B 160 171.986 165.966 210.721 1.00 98.20 C
ATOM 627 OH TYR B 160 172.212 164.704 211.215 1.00 98.20 O
ATOM 628 N LEU B 161 171.231 171.667 206.638 1.00 93.16 N
ATOM 629 CA LEU B 161 170.742 172.829 205.908 1.00 93.16 C
ATOM 630 C LEU B 161 169.228 172.728 205.808 1.00 93.16 C
ATOM 631 O LEU B 161 168.708 171.788 205.202 1.00 93.16 O
ATOM 632 CB LEU B 161 171.375 172.914 204.517 1.00 93.16 C
ATOM 633 CG LEU B 161 171.085 174.175 203.704 1.00 93.16 C
ATOM 634 CD1 LEU B 161 172.226 174.460 202.748 1.00 93.16 C
ATOM 635 CD2 LEU B 161 169.781 174.022 202.945 1.00 93.16 C
ATOM 636 N LEU B 162 168.529 173.694 206.395 1.00 92.08 N
ATOM 637 CA LEU B 162 167.079 173.641 206.506 1.00 92.08 C
ATOM 638 C LEU B 162 166.358 174.273 205.324 1.00 92.08 C
ATOM 639 O LEU B 162 165.125 174.331 205.333 1.00 92.08 O
ATOM 640 CB LEU B 162 166.629 174.322 207.801 1.00 92.08 C
ATOM 641 CG LEU B 162 167.389 173.929 209.066 1.00 92.08 C
ATOM 642 CD1 LEU B 162 167.048 174.869 210.207 1.00 92.08 C
ATOM 643 CD2 LEU B 162 167.079 172.495 209.444 1.00 92.08 C
ATOM 644 N GLY B 163 167.078 174.745 204.322 1.00 92.94 N
ATOM 645 CA GLY B 163 166.446 175.326 203.153 1.00 92.94 C
ATOM 646 C GLY B 163 167.326 176.383 202.525 1.00 92.94 C
ATOM 647 O GLY B 163 168.375 176.752 203.046 1.00 92.94 O
ATOM 648 N SER B 164 166.871 176.870 201.373 1.00 89.54 N
ATOM 649 CA SER B 164 167.560 177.920 200.635 1.00 89.54 C
ATOM 650 C SER B 164 166.708 178.285 199.429 1.00 89.54 C
ATOM 651 O SER B 164 165.844 177.513 199.004 1.00 89.54 O
ATOM 652 CB SER B 164 168.956 177.486 200.191 1.00 89.54 C

ATOM 653 OG SER B 164 168.904 176.816 198.945 1.00 89.54 O
ATOM 654 N ASN B 165 166.961 179.471 198.883 1.00 84.09 N
ATOM 655 CA ASN B 165 166.244 179.943 197.708 1.00 84.09 C
ATOM 656 C ASN B 165 167.081 181.016 197.029 1.00 84.09 C
ATOM 657 O ASN B 165 168.089 181.477 197.568 1.00 84.09 O
ATOM 658 CB ASN B 165 164.857 180.477 198.077 1.00 84.09 C
ATOM 659 CG ASN B 165 164.919 181.696 198.971 1.00 84.09 C
ATOM 660 OD1 ASN B 165 165.998 182.172 199.320 1.00 84.09 O
ATOM 661 ND2 ASN B 165 163.756 182.212 199.343 1.00 84.09 N
ATOM 662 N THR B 166 166.645 181.413 195.837 1.00 77.37 N
ATOM 663 CA THR B 166 167.333 182.422 195.048 1.00 77.37 C
ATOM 664 C THR B 166 166.339 183.490 194.613 1.00 77.37 C
ATOM 665 O THR B 166 165.125 183.343 194.770 1.00 77.37 O
ATOM 666 CB THR B 166 168.020 181.804 193.825 1.00 77.37 C
ATOM 667 OG1 THR B 166 168.633 180.565 194.200 1.00 77.37 O
ATOM 668 CG2 THR B 166 169.090 182.735 193.298 1.00 77.37 C
ATOM 669 N GLU B 167 166.867 184.580 194.064 1.00 73.98 N
ATOM 670 CA GLU B 167 166.026 185.682 193.613 1.00 73.98 C
ATOM 671 C GLU B 167 166.851 186.604 192.729 1.00 73.98 C
ATOM 672 O GLU B 167 167.968 186.974 193.095 1.00 73.98 O
ATOM 673 CB GLU B 167 165.450 186.450 194.801 1.00 73.98 C
ATOM 674 CG GLU B 167 164.561 187.606 194.401 1.00 73.98 C
ATOM 675 CD GLU B 167 163.386 187.782 195.336 1.00 73.98 C
ATOM 676 OE1 GLU B 167 163.019 188.942 195.618 1.00 73.98 O
ATOM 677 OE2 GLU B 167 162.827 186.762 195.787 1.00 73.98 O
ATOM 678 N TYR B 168 166.295 186.971 191.577 1.00 62.72 N
ATOM 679 CA TYR B 168 166.972 187.803 190.591 1.00 62.72 C
ATOM 680 C TYR B 168 166.369 189.199 190.591 1.00 62.72 C
ATOM 681 O TYR B 168 165.149 189.357 190.686 1.00 62.72 O
ATOM 682 CB TYR B 168 166.858 187.195 189.193 1.00 62.72 C
ATOM 683 CG TYR B 168 167.331 185.768 189.106 1.00 62.72 C
ATOM 684 CD1 TYR B 168 166.511 184.721 189.487 1.00 62.72 C
ATOM 685 CD2 TYR B 168 168.599 185.465 188.640 1.00 62.72 C
ATOM 686 CE1 TYR B 168 166.940 183.415 189.409 1.00 62.72 C

ATOM 687 CE2 TYR B 168 169.039 184.165 188.559 1.00 62.72 C
ATOM 688 CZ TYR B 168 168.205 183.144 188.944 1.00 62.72 C
ATOM 689 OH TYR B 168 168.642 181.844 188.864 1.00 62.72 O
ATOM 690 N VAL B 169 167.223 190.211 190.475 1.00 60.29 N
ATOM 691 CA VAL B 169 166.770 191.596 190.488 1.00 60.29 C
ATOM 692 C VAL B 169 167.704 192.422 189.617 1.00 60.29 C
ATOM 693 O VAL B 169 168.902 192.139 189.533 1.00 60.29 O
ATOM 694 CB VAL B 169 166.707 192.151 191.925 1.00 60.29 C
ATOM 695 CG1 VAL B 169 168.101 192.425 192.446 1.00 60.29 C
ATOM 696 CG2 VAL B 169 165.857 193.401 191.965 1.00 60.29 C
ATOM 697 N ALA B 170 167.146 193.461 188.965 1.00 52.81 N
ATOM 698 CA ALA B 170 167.875 194.301 188.019 1.00 52.81 C
ATOM 699 C ALA B 170 168.504 195.487 188.738 1.00 52.81 C
ATOM 700 O ALA B 170 167.814 196.180 189.492 1.00 52.81 O
ATOM 701 CB ALA B 170 166.953 194.803 186.920 1.00 52.81 C
ATOM 702 N PRO B 171 169.787 195.758 188.527 1.00 51.22 N
ATOM 703 CA PRO B 171 170.465 196.807 189.293 1.00 51.22 C
ATOM 704 C PRO B 171 169.860 198.169 189.013 1.00 51.22 C
ATOM 705 O PRO B 171 168.991 198.308 188.142 1.00 51.22 O
ATOM 706 CB PRO B 171 171.915 196.729 188.796 1.00 51.22 C
ATOM 707 CG PRO B 171 171.844 196.027 187.499 1.00 51.22 C
ATOM 708 CD PRO B 171 170.693 195.087 187.583 1.00 51.22 C
ATOM 709 N PRO B 172 170.290 199.199 189.737 1.00 63.84 N
ATOM 710 CA PRO B 172 169.804 200.553 189.478 1.00 63.84 C
ATOM 711 C PRO B 172 170.625 201.251 188.409 1.00 63.84 C
ATOM 712 O PRO B 172 171.804 200.965 188.199 1.00 63.84 O
ATOM 713 CB PRO B 172 169.981 201.236 190.839 1.00 63.84 C
ATOM 714 CG PRO B 172 171.199 200.590 191.391 1.00 63.84 C
ATOM 715 CD PRO B 172 171.215 199.163 190.882 1.00 63.84 C
ATOM 716 N MET B 173 169.971 202.197 187.734 1.00 69.89 N
ATOM 717 CA MET B 173 170.569 202.838 186.568 1.00 69.89 C
ATOM 718 C MET B 173 171.980 203.341 186.856 1.00 69.89 C
ATOM 719 O MET B 173 172.928 203.002 186.140 1.00 69.89 O
ATOM 720 CB MET B 173 169.674 203.980 186.089 1.00 69.89 C

ATOM 721 CG MET B 173 169.882 204.368 184.636 1.00 69.89 C
ATOM 722 SD MET B 173 169.766 202.970 183.502 1.00 69.89 S
ATOM 723 CE MET B 173 168.228 202.229 184.030 1.00 69.89 C
ATOM 724 N TRP B 174 172.143 204.139 187.913 1.00 82.32 N
ATOM 725 CA TRP B 174 173.417 204.816 188.133 1.00 82.32 C
ATOM 726 C TRP B 174 174.597 203.855 188.203 1.00 82.32 C
ATOM 727 O TRP B 174 175.747 204.301 188.134 1.00 82.32 O
ATOM 728 CB TRP B 174 173.368 205.660 189.410 1.00 82.32 C
ATOM 729 CG TRP B 174 173.409 204.869 190.681 1.00 82.32 C
ATOM 730 CD1 TRP B 174 174.517 204.368 191.302 1.00 82.32 C
ATOM 731 CD2 TRP B 174 172.294 204.508 191.500 1.00 82.32 C
ATOM 732 NE1 TRP B 174 174.158 203.707 192.450 1.00 82.32 N
ATOM 733 CE2 TRP B 174 172.798 203.780 192.595 1.00 82.32 C
ATOM 734 CE3 TRP B 174 170.917 204.725 191.412 1.00 82.32 C
ATOM 735 CZ2 TRP B 174 171.974 203.268 193.591 1.00 82.32 C
ATOM 736 CZ3 TRP B 174 170.102 204.217 192.401 1.00 82.32 C
ATOM 737 CH2 TRP B 174 170.631 203.497 193.477 1.00 82.32 C
ATOM 738 N GLU B 175 174.350 202.553 188.343 1.00 70.74 N
ATOM 739 CA GLU B 175 175.437 201.585 188.394 1.00 70.74 C
ATOM 740 C GLU B 175 175.754 200.976 187.037 1.00 70.74 C
ATOM 741 O GLU B 175 176.886 200.520 186.823 1.00 70.74 O
ATOM 742 CB GLU B 175 175.112 200.469 189.388 1.00 70.74 C
ATOM 743 CG GLU B 175 176.313 199.617 189.741 1.00 70.74 C
ATOM 744 CD GLU B 175 176.007 198.590 190.801 1.00 70.74 C
ATOM 745 OE1 GLU B 175 174.812 198.321 191.041 1.00 70.74 O
ATOM 746 OE2 GLU B 175 176.962 198.047 191.394 1.00 70.74 O
ATOM 747 N ILE B 176 174.781 200.936 186.123 1.00 61.03 N
ATOM 748 CA ILE B 176 175.070 200.556 184.749 1.00 61.03 C
ATOM 749 C ILE B 176 175.931 201.586 184.044 1.00 61.03 C
ATOM 750 O ILE B 176 176.408 201.331 182.934 1.00 61.03 O
ATOM 751 CB ILE B 176 173.765 200.329 183.966 1.00 61.03 C
ATOM 752 CG1 ILE B 176 172.898 199.303 184.683 1.00 61.03 C
ATOM 753 CG2 ILE B 176 174.065 199.840 182.575 1.00 61.03 C
ATOM 754 CD1 ILE B 176 171.735 198.826 183.861 1.00 61.03 C

ATOM 755 N HIS B 177 176.148 202.746 184.665 1.00 67.72 N
ATOM 756 CA HIS B 177 177.077 203.734 184.140 1.00 67.72 C
ATOM 757 C HIS B 177 178.497 203.523 184.638 1.00 67.72 C
ATOM 758 O HIS B 177 179.437 204.036 184.022 1.00 67.72 O
ATOM 759 CB HIS B 177 176.617 205.147 184.505 1.00 67.72 C
ATOM 760 CG HIS B 177 175.396 205.594 183.765 1.00 67.72 C
ATOM 761 ND1 HIS B 177 174.851 204.870 182.727 1.00 67.72 N
ATOM 762 CD2 HIS B 177 174.613 206.686 183.914 1.00 67.72 C
ATOM 763 CE1 HIS B 177 173.785 205.498 182.268 1.00 67.72 C
ATOM 764 NE2 HIS B 177 173.617 206.603 182.971 1.00 67.72 N
ATOM 765 N HIS B 178 178.676 202.785 185.733 1.00 65.73 N
ATOM 766 CA HIS B 178 180.001 202.370 186.173 1.00 65.73 C
ATOM 767 C HIS B 178 180.405 201.016 185.624 1.00 65.73 C
ATOM 768 O HIS B 178 181.592 200.796 185.364 1.00 65.73 O
ATOM 769 CB HIS B 178 180.074 202.333 187.700 1.00 65.73 C
ATOM 770 CG HIS B 178 180.558 203.611 188.307 1.00 65.73 C
ATOM 771 ND1 HIS B 178 181.889 203.966 188.325 1.00 65.73 N
ATOM 772 CD2 HIS B 178 179.890 204.622 188.910 1.00 65.73 C
ATOM 773 CE1 HIS B 178 182.020 205.140 188.917 1.00 65.73 C
ATOM 774 NE2 HIS B 178 180.822 205.559 189.282 1.00 65.73 N
ATOM 775 N ILE B 179 179.451 200.105 185.438 1.00 59.23 N
ATOM 776 CA ILE B 179 179.768 198.845 184.772 1.00 59.23 C
ATOM 777 C ILE B 179 180.304 199.110 183.372 1.00 59.23 C
ATOM 778 O ILE B 179 181.253 198.458 182.920 1.00 59.23 O
ATOM 779 CB ILE B 179 178.536 197.925 184.737 1.00 59.23 C
ATOM 780 CG1 ILE B 179 178.117 197.540 186.150 1.00 59.23 C
ATOM 781 CG2 ILE B 179 178.829 196.682 183.922 1.00 59.23 C
ATOM 782 CD1 ILE B 179 177.162 196.375 186.194 1.00 59.23 C
ATOM 783 N ASN B 180 179.711 200.069 182.665 1.00 57.86 N
ATOM 784 CA ASN B 180 180.069 200.381 181.289 1.00 57.86 C
ATOM 785 C ASN B 180 181.229 201.358 181.178 1.00 57.86 C
ATOM 786 O ASN B 180 181.514 201.833 180.077 1.00 57.86 O
ATOM 787 CB ASN B 180 178.857 200.949 180.548 1.00 57.86 C
ATOM 788 CG ASN B 180 177.891 199.878 180.105 1.00 57.86 C

ATOM 789 OD1 ASN B 180 178.279 198.738 179.869 1.00 57.86 O
ATOM 790 ND2 ASN B 180 176.623 200.240 179.989 1.00 57.86 N
ATOM 791 N SER B 181 181.896 201.682 182.283 1.00 59.18 N
ATOM 792 CA SER B 181 183.039 202.583 182.220 1.00 59.18 C
ATOM 793 C SER B 181 184.242 202.116 183.021 1.00 59.18 C
ATOM 794 O SER B 181 185.329 202.664 182.823 1.00 59.18 O
ATOM 795 CB SER B 181 182.640 203.984 182.696 1.00 59.18 C
ATOM 796 OG SER B 181 181.401 204.368 182.128 1.00 59.18 O
ATOM 797 N HIS B 182 184.097 201.142 183.918 1.00 64.81 N
ATOM 798 CA HIS B 182 185.243 200.587 184.624 1.00 64.81 C
ATOM 799 C HIS B 182 185.223 199.071 184.741 1.00 64.81 C
ATOM 800 O HIS B 182 186.252 198.498 185.108 1.00 64.81 O
ATOM 801 CB HIS B 182 185.350 201.186 186.033 1.00 64.81 C
ATOM 802 CG HIS B 182 185.399 202.681 186.055 1.00 64.81 C
ATOM 803 ND1 HIS B 182 184.440 203.447 186.680 1.00 64.81 N
ATOM 804 CD2 HIS B 182 186.296 203.550 185.536 1.00 64.81 C
ATOM 805 CE1 HIS B 182 184.742 204.726 186.542 1.00 64.81 C
ATOM 806 NE2 HIS B 182 185.864 204.815 185.851 1.00 64.81 N
ATOM 807 N SER B 183 184.109 198.401 184.445 1.00 65.46 N
ATOM 808 CA SER B 183 183.990 196.960 184.648 1.00 65.46 C
ATOM 809 C SER B 183 184.076 196.611 186.134 1.00 65.46 C
ATOM 810 O SER B 183 184.871 195.769 186.548 1.00 65.46 O
ATOM 811 CB SER B 183 185.048 196.201 183.847 1.00 65.46 C
ATOM 812 OG SER B 183 184.928 196.468 182.464 1.00 65.46 O
ATOM 813 N GLN B 184 183.246 197.274 186.942 1.00 70.92 N
ATOM 814 CA GLN B 184 183.315 197.118 188.394 1.00 70.92 C
ATOM 815 C GLN B 184 181.912 197.281 188.970 1.00 70.92 C
ATOM 816 O GLN B 184 181.450 198.409 189.159 1.00 70.92 O
ATOM 817 CB GLN B 184 184.273 198.131 189.001 1.00 70.92 C
ATOM 818 CG GLN B 184 185.684 198.048 188.478 1.00 70.92 C
ATOM 819 CD GLN B 184 186.616 198.982 189.212 1.00 70.92 C
ATOM 820 OE1 GLN B 184 186.174 199.904 189.894 1.00 70.92 O
ATOM 821 NE2 GLN B 184 187.915 198.746 189.082 1.00 70.92 N
ATOM 822 N CYS B 185 181.251 196.164 189.261 1.00 74.83 N

ATOM 823 CA CYS B 185 180.006 196.235 190.007 1.00 74.83 C
ATOM 824 C CYS B 185 180.280 196.760 191.414 1.00 74.83 C
ATOM 825 O CYS B 185 181.426 196.922 191.835 1.00 74.83 O
ATOM 826 CB CYS B 185 179.333 194.865 190.075 1.00 74.83 C
ATOM 827 SG CYS B 185 179.025 194.085 188.477 1.00 74.83 S
ATOM 828 N TYR B 186 179.207 197.037 192.143 1.00 85.13 N
ATOM 829 CA TYR B 186 179.329 197.404 193.544 1.00 85.13 C
ATOM 830 C TYR B 186 179.101 196.187 194.435 1.00 85.13 C
ATOM 831 O TYR B 186 178.744 195.101 193.975 1.00 85.13 O
ATOM 832 CB TYR B 186 178.353 198.523 193.900 1.00 85.13 C
ATOM 833 CG TYR B 186 178.756 199.870 193.358 1.00 85.13 C
ATOM 834 CD1 TYR B 186 180.056 200.109 192.941 1.00 85.13 C
ATOM 835 CD2 TYR B 186 177.837 200.902 193.259 1.00 85.13 C
ATOM 836 CE1 TYR B 186 180.429 201.338 192.446 1.00 85.13 C
ATOM 837 CE2 TYR B 186 178.199 202.134 192.762 1.00 85.13 C
ATOM 838 CZ TYR B 186 179.497 202.347 192.357 1.00 85.13 C
ATOM 839 OH TYR B 186 179.862 203.576 191.860 1.00 85.13 O
ATOM 840 N SER B 187 179.311 196.382 195.732 1.00 95.73 N
ATOM 841 CA SER B 187 179.238 195.309 196.713 1.00 95.73 C
ATOM 842 C SER B 187 178.190 195.603 197.777 1.00 95.73 C
ATOM 843 O SER B 187 178.417 195.395 198.969 1.00 95.73 O
ATOM 844 CB SER B 187 180.602 195.075 197.358 1.00 95.73 C
ATOM 845 OG SER B 187 181.123 196.280 197.887 1.00 95.73 O
ATOM 846 N SER B 188 177.025 196.096 197.362 1.00 98.36 N
ATOM 847 CA SER B 188 175.954 196.370 198.308 1.00 98.36 C
ATOM 848 C SER B 188 174.663 196.629 197.547 1.00 98.36 C
ATOM 849 O SER B 188 174.682 197.217 196.464 1.00 98.36 O
ATOM 850 CB SER B 188 176.288 197.566 199.201 1.00 98.36 C
ATOM 851 OG SER B 188 176.443 198.744 198.431 1.00 98.36 O
ATOM 852 N TYR B 189 173.551 196.194 198.130 1.00 99.21 N
ATOM 853 CA TYR B 189 172.233 196.334 197.535 1.00 99.21 C
ATOM 854 C TYR B 189 171.343 197.185 198.432 1.00 99.21 C
ATOM 855 O TYR B 189 171.635 197.399 199.611 1.00 99.21 O
ATOM 856 CB TYR B 189 171.586 194.965 197.301 1.00 99.21 C

ATOM 857 CG TYR B 189 170.436 195.002 196.332 1.00 99.21 C
ATOM 858 CD1 TYR B 189 170.428 195.900 195.278 1.00 99.21 C
ATOM 859 CD2 TYR B 189 169.363 194.141 196.465 1.00 99.21 C
ATOM 860 CE1 TYR B 189 169.384 195.942 194.389 1.00 99.21 C
ATOM 861 CE2 TYR B 189 168.313 194.174 195.577 1.00 99.21 C
ATOM 862 CZ TYR B 189 168.329 195.077 194.542 1.00 99.21 C
ATOM 863 OH TYR B 189 167.288 195.121 193.651 1.00 99.21 O
ATOM 864 N SER B 190 170.245 197.671 197.857 1.00110.74 N
ATOM 865 CA SER B 190 169.319 198.521 198.601 1.00110.74 C
ATOM 866 C SER B 190 167.947 198.407 197.952 1.00110.74 C
ATOM 867 O SER B 190 167.740 198.930 196.853 1.00110.74 O
ATOM 868 CB SER B 190 169.805 199.964 198.614 1.00110.74 C
ATOM 869 OG SER B 190 171.044 200.077 199.290 1.00110.74 O
ATOM 870 N ARG B 191 167.022 197.733 198.626 1.00119.08 N
ATOM 871 CA ARG B 191 165.666 197.557 198.139 1.00119.08 C
ATOM 872 C ARG B 191 164.718 198.494 198.882 1.00119.08 C
ATOM 873 O ARG B 191 165.116 199.260 199.761 1.00119.08 O
ATOM 874 CB ARG B 191 165.226 196.101 198.298 1.00119.08 C
ATOM 875 CG ARG B 191 165.179 195.634 199.743 1.00119.08 C
ATOM 876 CD ARG B 191 164.433 194.318 199.887 1.00119.08 C
ATOM 877 NE ARG B 191 165.129 193.204 199.253 1.00119.08 N
ATOM 878 CZ ARG B 191 164.695 192.571 198.168 1.00119.08 C
ATOM 879 NH1 ARG B 191 163.564 192.947 197.589 1.00119.08 N
ATOM 880 NH2 ARG B 191 165.391 191.564 197.662 1.00119.08 N
ATOM 881 N VAL B 192 163.440 198.432 198.513 1.00133.53 N
ATOM 882 CA VAL B 192 162.385 199.162 199.209 1.00133.53 C
ATOM 883 C VAL B 192 161.055 198.487 198.905 1.00133.53 C
ATOM 884 O VAL B 192 160.740 198.218 197.741 1.00133.53 O
ATOM 885 CB VAL B 192 162.366 200.646 198.797 1.00133.53 C
ATOM 886 CG1 VAL B 192 161.987 200.784 197.332 1.00133.53 C
ATOM 887 CG2 VAL B 192 161.401 201.428 199.669 1.00133.53 C
ATOM 888 N ILE B 193 160.258 198.212 199.938 1.00140.69 N
ATOM 889 CA ILE B 193 158.978 197.521 199.777 1.00140.69 C
ATOM 890 C ILE B 193 157.898 198.387 200.422 1.00140.69 C

ATOM 891 O ILE B 193 157.541 198.207 201.590 1.00140.69 O
ATOM 892 CB ILE B 193 158.993 196.109 200.373 1.00140.69 C
ATOM 893 CG1 ILE B 193 157.670 195.396 200.089 1.00140.69 C
ATOM 894 CG2 ILE B 193 159.310 196.148 201.866 1.00140.69 C
ATOM 895 CD1 ILE B 193 157.372 195.238 198.616 1.00140.69 C
ATOM 896 N ALA B 194 157.372 199.339 199.654 1.00143.94 N
ATOM 897 CA ALA B 194 156.098 200.004 199.904 1.00143.94 C
ATOM 898 C ALA B 194 156.056 200.819 201.192 1.00143.94 C
ATOM 899 O ALA B 194 155.116 201.594 201.397 1.00143.94 O
ATOM 900 CB ALA B 194 154.970 198.970 199.920 1.00143.94 C
ATOM 901 N GLY B 195 157.048 200.668 202.067 1.00142.34 N
ATOM 902 CA GLY B 195 157.108 201.536 203.226 1.00142.34 C
ATOM 903 C GLY B 195 158.493 201.856 203.748 1.00142.34 C
ATOM 904 O GLY B 195 158.633 202.652 204.682 1.00142.34 O
ATOM 905 N THR B 196 159.525 201.257 203.157 1.00139.01 N
ATOM 906 CA THR B 196 160.876 201.437 203.673 1.00139.01 C
ATOM 907 C THR B 196 161.892 200.644 202.862 1.00139.01 C
ATOM 908 O THR B 196 161.522 199.857 201.985 1.00139.01 O
ATOM 909 CB THR B 196 160.950 201.024 205.146 1.00139.01 C
ATOM 910 OG1 THR B 196 162.229 201.382 205.681 1.00139.01 O
ATOM 911 CG2 THR B 196 160.747 199.524 205.289 1.00139.01 C
ATOM 912 N VAL B 197 163.173 200.833 203.165 1.00131.92 N
ATOM 913 CA VAL B 197 164.264 200.132 202.500 1.00131.92 C
ATOM 914 C VAL B 197 164.758 199.027 203.422 1.00131.92 C
ATOM 915 O VAL B 197 164.922 199.242 204.629 1.00131.92 O
ATOM 916 CB VAL B 197 165.409 201.093 202.134 1.00131.92 C
ATOM 917 CG1 VAL B 197 166.703 200.324 201.918 1.00131.92 C
ATOM 918 CG2 VAL B 197 165.047 201.905 200.898 1.00131.92 C
ATOM 919 N PHE B 198 164.987 197.846 202.857 1.00127.80 N
ATOM 920 CA PHE B 198 165.593 196.724 203.567 1.00127.80 C
ATOM 921 C PHE B 198 166.958 196.494 202.924 1.00127.80 C
ATOM 922 O PHE B 198 167.105 195.681 202.010 1.00127.80 O
ATOM 923 CB PHE B 198 164.712 195.478 203.506 1.00127.80 C
ATOM 924 CG PHE B 198 164.838 194.587 204.711 1.00127.80 C

ATOM 925 CD1 PHE B 198 164.525 195.058 205.975 1.00127.80 C
ATOM 926 CD2 PHE B 198 165.273 193.279 204.579 1.00127.80 C
ATOM 927 CE1 PHE B 198 164.642 194.243 207.083 1.00127.80 C
ATOM 928 CE2 PHE B 198 165.391 192.458 205.684 1.00127.80 C
ATOM 929 CZ PHE B 198 165.075 192.942 206.938 1.00127.80 C
ATOM 930 N VAL B 199 167.960 197.219 203.415 1.00120.26 N
ATOM 931 CA VAL B 199 169.283 197.227 202.800 1.00120.26 C
ATOM 932 C VAL B 199 169.939 195.871 203.034 1.00120.26 C
ATOM 933 O VAL B 199 170.305 195.531 204.162 1.00120.26 O
ATOM 934 CB VAL B 199 170.149 198.368 203.347 1.00120.26 C
ATOM 935 CG1 VAL B 199 170.190 198.322 204.866 1.00120.26 C
ATOM 936 CG2 VAL B 199 171.553 198.290 202.769 1.00120.26 C
ATOM 937 N ALA B 200 170.087 195.092 201.968 1.00114.44 N
ATOM 938 CA ALA B 200 170.807 193.832 202.024 1.00114.44 C
ATOM 939 C ALA B 200 172.295 194.099 201.802 1.00114.44 C
ATOM 940 O ALA B 200 172.745 195.247 201.777 1.00114.44 O
ATOM 941 CB ALA B 200 170.234 192.849 201.004 1.00114.44 C
ATOM 942 N TYR B 201 173.075 193.039 201.636 1.00110.29 N
ATOM 943 CA TYR B 201 174.518 193.172 201.501 1.00110.29 C
ATOM 944 C TYR B 201 175.060 191.926 200.806 1.00110.29 C
ATOM 945 O TYR B 201 174.297 191.136 200.241 1.00110.29 O
ATOM 946 CB TYR B 201 175.170 193.386 202.878 1.00110.29 C
ATOM 947 CG TYR B 201 175.284 194.828 203.317 1.00110.29 C
ATOM 948 CD1 TYR B 201 176.346 195.616 202.900 1.00110.29 C
ATOM 949 CD2 TYR B 201 174.343 195.393 204.165 1.00110.29 C
ATOM 950 CE1 TYR B 201 176.459 196.932 203.303 1.00110.29 C
ATOM 951 CE2 TYR B 201 174.448 196.708 204.572 1.00110.29 C
ATOM 952 CZ TYR B 201 175.508 197.473 204.139 1.00110.29 C
ATOM 953 OH TYR B 201 175.618 198.783 204.542 1.00110.29 O
ATOM 954 N HIS B 202 176.378 191.760 200.856 1.00107.29 N
ATOM 955 CA HIS B 202 177.039 190.489 200.594 1.00107.29 C
ATOM 956 C HIS B 202 176.836 189.638 201.838 1.00107.29 C
ATOM 957 O HIS B 202 175.910 189.896 202.613 1.00107.29 O
ATOM 958 CB HIS B 202 178.525 190.682 200.281 1.00107.29 C

ATOM 959 CG HIS B 202 179.102 189.617 199.400 1.00107.29 C
ATOM 960 ND1 HIS B 202 179.165 188.292 199.776 1.00107.29 N
ATOM 961 CD2 HIS B 202 179.646 189.680 198.161 1.00107.29 C
ATOM 962 CE1 HIS B 202 179.719 187.585 198.808 1.00107.29 C
ATOM 963 NE2 HIS B 202 180.021 188.404 197.817 1.00107.29 N
ATOM 964 N ARG B 203 177.658 188.614 202.049 1.00112.17 N
ATOM 965 CA ARG B 203 177.423 187.772 203.214 1.00112.17 C
ATOM 966 C ARG B 203 177.698 188.578 204.481 1.00112.17 C
ATOM 967 O ARG B 203 178.647 188.299 205.222 1.00112.17 O
ATOM 968 CB ARG B 203 178.304 186.523 203.168 1.00112.17 C
ATOM 969 CG ARG B 203 177.917 185.461 204.181 1.00112.17 C
ATOM 970 CD ARG B 203 179.037 184.448 204.345 1.00112.17 C
ATOM 971 NE ARG B 203 178.548 183.146 204.787 1.00112.17 N
ATOM 972 CZ ARG B 203 178.215 182.163 203.959 1.00112.17 C
ATOM 973 NH1 ARG B 203 178.308 182.342 202.649 1.00112.17 N
ATOM 974 NH2 ARG B 203 177.780 181.005 204.436 1.00112.17 N
ATOM 975 N ASP B 204 176.855 189.589 204.716 1.00118.90 N
ATOM 976 CA ASP B 204 176.834 190.425 205.912 1.00118.90 C
ATOM 977 C ASP B 204 178.222 190.878 206.359 1.00118.90 C
ATOM 978 O ASP B 204 178.512 190.926 207.559 1.00118.90 O
ATOM 979 CB ASP B 204 176.095 189.674 207.021 1.00118.90 C
ATOM 980 CG ASP B 204 174.660 189.373 206.646 1.00118.90 C
ATOM 981 OD1 ASP B 204 174.367 189.388 205.435 1.00118.90 O
ATOM 982 OD2 ASP B 204 173.815 189.178 207.541 1.00118.90 O
ATOM 983 N SER B 205 179.059 191.262 205.392 1.00120.40 N
ATOM 984 CA SER B 205 180.390 191.806 205.633 1.00120.40 C
ATOM 985 C SER B 205 180.396 193.323 205.755 1.00120.40 C
ATOM 986 O SER B 205 181.459 193.908 205.991 1.00120.40 O
ATOM 987 CB SER B 205 181.344 191.395 204.506 1.00120.40 C
ATOM 988 OG SER B 205 181.628 190.010 204.527 1.00120.40 O
ATOM 989 N TYR B 206 179.253 193.973 205.551 1.00121.88 N
ATOM 990 CA TYR B 206 179.109 195.404 205.816 1.00121.88 C
ATOM 991 C TYR B 206 180.088 196.238 204.991 1.00121.88 C
ATOM 992 O TYR B 206 180.397 197.380 205.338 1.00121.88 O

ATOM 993 CB TYR B 206 179.275 195.702 207.308 1.00121.88 C
ATOM 994 CG TYR B 206 178.332 194.927 208.208 1.00121.88 C
ATOM 995 CD1 TYR B 206 177.269 194.202 207.682 1.00121.88 C
ATOM 996 CD2 TYR B 206 178.500 194.930 209.586 1.00121.88 C
ATOM 997 CE1 TYR B 206 176.408 193.497 208.498 1.00121.88 C
ATOM 998 CE2 TYR B 206 177.641 194.229 210.411 1.00121.88 C
ATOM 999 CZ TYR B 206 176.598 193.515 209.862 1.00121.88 C
ATOM 1000 OH TYR B 206 175.744 192.818 210.683 1.00121.88 O
ATOM 1001 N GLU B 207 180.575 195.682 203.884 1.00114.22 N
ATOM 1002 CA GLU B 207 181.580 196.333 203.058 1.00114.22 C
ATOM 1003 C GLU B 207 180.970 196.807 201.745 1.00114.22 C
ATOM 1004 O GLU B 207 180.070 196.170 201.190 1.00114.22 O
ATOM 1005 CB GLU B 207 182.753 195.390 202.776 1.00114.22 C
ATOM 1006 CG GLU B 207 183.713 195.264 203.940 1.00114.22 C
ATOM 1007 CD GLU B 207 184.127 196.613 204.486 1.00114.22 C
ATOM 1008 OE1 GLU B 207 184.203 197.575 203.694 1.00114.22 O
ATOM 1009 OE2 GLU B 207 184.366 196.713 205.707 1.00114.22 O
ATOM 1010 N ASN B 208 181.474 197.935 201.250 1.00103.12 N
ATOM 1011 CA ASN B 208 180.976 198.545 200.020 1.00103.12 C
ATOM 1012 C ASN B 208 182.138 198.938 199.115 1.00103.12 C
ATOM 1013 O ASN B 208 182.224 200.063 198.622 1.00103.12 O
ATOM 1014 CB ASN B 208 180.094 199.752 200.324 1.00103.12 C
ATOM 1015 CG ASN B 208 179.285 200.195 199.123 1.00103.12 C
ATOM 1016 OD1 ASN B 208 179.819 200.771 198.177 1.00103.12 O
ATOM 1017 ND2 ASN B 208 177.985 199.943 199.163 1.00103.12 N
ATOM 1018 N LYS B 209 183.057 198.007 198.894 1.00 96.60 N
ATOM 1019 CA LYS B 209 184.173 198.235 197.992 1.00 96.60 C
ATOM 1020 C LYS B 209 183.778 197.791 196.584 1.00 96.60 C
ATOM 1021 O LYS B 209 182.612 197.506 196.304 1.00 96.60 O
ATOM 1022 CB LYS B 209 185.421 197.517 198.501 1.00 96.60 C
ATOM 1023 CG LYS B 209 185.529 197.458 200.016 1.00 96.60 C
ATOM 1024 CD LYS B 209 185.341 198.833 200.642 1.00 96.60 C
ATOM 1025 CE LYS B 209 186.395 199.819 200.163 1.00 96.60 C
ATOM 1026 NZ LYS B 209 186.467 201.024 201.036 1.00 96.60 N

ATOM 1027 N THR B 210 184.750 197.729 195.682 1.00 84.89 N
ATOM 1028 CA THR B 210 184.502 197.386 194.291 1.00 84.89 C
ATOM 1029 C THR B 210 184.913 195.946 194.006 1.00 84.89 C
ATOM 1030 O THR B 210 185.491 195.255 194.848 1.00 84.89 O
ATOM 1031 CB THR B 210 185.252 198.344 193.364 1.00 84.89 C
ATOM 1032 OG1 THR B 210 186.662 198.215 193.583 1.00 84.89 O
ATOM 1033 CG2 THR B 210 184.835 199.777 193.639 1.00 84.89 C
ATOM 1034 N MET B 211 184.604 195.496 192.791 1.00 80.27 N
ATOM 1035 CA MET B 211 184.926 194.139 192.370 1.00 80.27 C
ATOM 1036 C MET B 211 185.462 194.127 190.944 1.00 80.27 C
ATOM 1037 O MET B 211 185.760 195.183 190.379 1.00 80.27 O
ATOM 1038 CB MET B 211 183.694 193.243 192.477 1.00 80.27 C
ATOM 1039 CG MET B 211 183.062 193.218 193.854 1.00 80.27 C
ATOM 1040 SD MET B 211 183.709 191.907 194.904 1.00 80.27 S
ATOM 1041 CE MET B 211 182.333 191.673 196.025 1.00 80.27 C
ATOM 1042 N GLN B 212 185.594 192.940 190.358 1.00 71.09 N
ATOM 1043 CA GLN B 212 186.000 192.791 188.969 1.00 71.09 C
ATOM 1044 C GLN B 212 185.125 191.731 188.319 1.00 71.09 C
ATOM 1045 O GLN B 212 184.225 191.170 188.946 1.00 71.09 O
ATOM 1046 CB GLN B 212 187.479 192.414 188.847 1.00 71.09 C
ATOM 1047 CG GLN B 212 188.434 193.488 189.316 1.00 71.09 C
ATOM 1048 CD GLN B 212 188.339 194.747 188.487 1.00 71.09 C
ATOM 1049 OE1 GLN B 212 187.867 195.781 188.956 1.00 71.09 O
ATOM 1050 NE2 GLN B 212 188.785 194.665 187.241 1.00 71.09 N
ATOM 1051 N LEU B 213 185.392 191.456 187.046 1.00 58.95 N
ATOM 1052 CA LEU B 213 184.641 190.463 186.297 1.00 58.95 C
ATOM 1053 C LEU B 213 185.597 189.490 185.617 1.00 58.95 C
ATOM 1054 O LEU B 213 186.742 189.833 185.315 1.00 58.95 O
ATOM 1055 CB LEU B 213 183.727 191.131 185.269 1.00 58.95 C
ATOM 1056 CG LEU B 213 182.578 191.944 185.870 1.00 58.95 C
ATOM 1057 CD1 LEU B 213 183.035 193.346 186.198 1.00 58.95 C
ATOM 1058 CD2 LEU B 213 181.395 191.983 184.934 1.00 58.95 C
ATOM 1059 N MET B 214 185.117 188.262 185.390 1.00 58.72 N
ATOM 1060 CA MET B 214 185.925 187.177 184.843 1.00 58.72 C

ATOM 1061 C MET B 214 185.030 186.138 184.183 1.00 58.72 C
ATOM 1062 O MET B 214 183.925 185.884 184.679 1.00 58.72 O
ATOM 1063 CB MET B 214 186.768 186.509 185.933 1.00 58.72 C
ATOM 1064 CG MET B 214 187.387 187.475 186.930 1.00 58.72 C
ATOM 1065 SD MET B 214 187.908 186.697 188.469 1.00 58.72 S
ATOM 1066 CE MET B 214 186.376 185.955 189.016 1.00 58.72 C
ATOM 1067 N PRO B 215 185.472 185.515 183.092 1.00 51.70 N
ATOM 1068 CA PRO B 215 184.601 184.580 182.364 1.00 51.70 C
ATOM 1069 C PRO B 215 184.136 183.434 183.251 1.00 51.70 C
ATOM 1070 O PRO B 215 184.871 182.969 184.123 1.00 51.70 O
ATOM 1071 CB PRO B 215 185.495 184.083 181.224 1.00 51.70 C
ATOM 1072 CG PRO B 215 186.561 185.128 181.092 1.00 51.70 C
ATOM 1073 CD PRO B 215 186.797 185.642 182.471 1.00 51.70 C
ATOM 1074 N ASP B 216 182.896 182.984 183.033 1.00 56.42 N
ATOM 1075 CA ASP B 216 182.255 182.083 184.002 1.00 56.42 C
ATOM 1076 C ASP B 216 182.544 180.597 183.784 1.00 56.42 C
ATOM 1077 O ASP B 216 183.412 180.028 184.452 1.00 56.42 O
ATOM 1078 CB ASP B 216 180.749 182.340 183.981 1.00 56.42 C
ATOM 1079 CG ASP B 216 180.052 181.820 185.213 1.00 56.42 C
ATOM 1080 OD1 ASP B 216 180.059 182.526 186.240 1.00 56.42 O
ATOM 1081 OD2 ASP B 216 179.488 180.710 185.151 1.00 56.42 O
ATOM 1082 N CYS B 217 181.835 179.953 182.849 1.00 62.32 N
ATOM 1083 CA CYS B 217 182.120 178.546 182.565 1.00 62.32 C
ATOM 1084 C CYS B 217 181.857 178.089 181.132 1.00 62.32 C
ATOM 1085 O CYS B 217 182.419 177.077 180.702 1.00 62.32 O
ATOM 1086 CB CYS B 217 181.313 177.636 183.505 1.00 62.32 C
ATOM 1087 SG CYS B 217 182.140 177.081 185.033 1.00 62.32 S
ATOM 1088 N TYR B 218 181.022 178.802 180.380 1.00 57.21 N
ATOM 1089 CA TYR B 218 180.340 178.183 179.238 1.00 57.21 C
ATOM 1090 C TYR B 218 180.381 179.063 177.995 1.00 57.21 C
ATOM 1091 O TYR B 218 179.358 179.331 177.366 1.00 57.21 O
ATOM 1092 CB TYR B 218 178.890 177.850 179.584 1.00 57.21 C
ATOM 1093 CG TYR B 218 178.685 177.223 180.940 1.00 57.21 C
ATOM 1094 CD1 TYR B 218 178.906 175.873 181.142 1.00 57.21 C

ATOM 1095 CD2 TYR B 218 178.249 177.981 182.014 1.00 57.21 C
ATOM 1096 CE1 TYR B 218 178.712 175.298 182.379 1.00 57.21 C
ATOM 1097 CE2 TYR B 218 178.051 177.413 183.255 1.00 57.21 C
ATOM 1098 CZ TYR B 218 178.286 176.073 183.431 1.00 57.21 C
ATOM 1099 OH TYR B 218 178.091 175.504 184.666 1.00 57.21 O
ATOM 1100 N SER B 219 181.565 179.524 177.614 1.00 52.64 N
ATOM 1101 CA SER B 219 181.678 180.293 176.384 1.00 52.64 C
ATOM 1102 C SER B 219 181.164 179.487 175.197 1.00 52.64 C
ATOM 1103 O SER B 219 181.294 178.262 175.146 1.00 52.64 O
ATOM 1104 CB SER B 219 183.129 180.714 176.151 1.00 52.64 C
ATOM 1105 OG SER B 219 183.681 181.300 177.316 1.00 52.64 O
ATOM 1106 N ASN B 220 180.560 180.189 174.245 1.00 48.68 N
ATOM 1107 CA ASN B 220 180.122 179.655 172.961 1.00 48.68 C
ATOM 1108 C ASN B 220 180.643 180.556 171.847 1.00 48.68 C
ATOM 1109 O ASN B 220 181.491 181.426 172.061 1.00 48.68 O
ATOM 1110 CB ASN B 220 178.598 179.542 172.877 1.00 48.68 C
ATOM 1111 CG ASN B 220 178.042 178.446 173.743 1.00 48.68 C
ATOM 1112 OD1 ASN B 220 177.313 178.702 174.699 1.00 48.68 O
ATOM 1113 ND2 ASN B 220 178.369 177.209 173.405 1.00 48.68 N
ATOM 1114 N THR B 221 180.124 180.332 170.641 1.00 48.07 N
ATOM 1115 CA THR B 221 180.415 181.231 169.531 1.00 48.07 C
ATOM 1116 C THR B 221 179.587 182.507 169.630 1.00 48.07 C
ATOM 1117 O THR B 221 180.018 183.576 169.184 1.00 48.07 O
ATOM 1118 CB THR B 221 180.150 180.524 168.204 1.00 48.07 C
ATOM 1119 OG1 THR B 221 180.953 179.343 168.120 1.00 48.07 O
ATOM 1120 CG2 THR B 221 180.493 181.438 167.046 1.00 48.07 C
ATOM 1121 N HIS B 222 178.391 182.413 170.208 1.00 47.92 N
ATOM 1122 CA HIS B 222 177.446 183.525 170.239 1.00 47.92 C
ATOM 1123 C HIS B 222 176.954 183.791 171.661 1.00 47.92 C
ATOM 1124 O HIS B 222 175.823 184.226 171.876 1.00 47.92 O
ATOM 1125 CB HIS B 222 176.248 183.252 169.330 1.00 47.92 C
ATOM 1126 CG HIS B 222 176.611 182.909 167.919 1.00 47.92 C
ATOM 1127 ND1 HIS B 222 176.810 181.614 167.497 1.00 47.92 N
ATOM 1128 CD2 HIS B 222 176.779 183.689 166.826 1.00 47.92 C

ATOM 1129 CE1 HIS B 222 177.102 181.611 166.209 1.00 47.92 C
ATOM 1130 NE2 HIS B 222 177.089 182.859 165.778 1.00 47.92 N
ATOM 1131 N SER B 223 177.791 183.522 172.663 1.00 46.80 N
ATOM 1132 CA SER B 223 177.374 183.734 174.050 1.00 46.80 C
ATOM 1133 C SER B 223 178.611 183.751 174.942 1.00 46.80 C
ATOM 1134 O SER B 223 179.402 182.806 174.927 1.00 46.80 O
ATOM 1135 CB SER B 223 176.388 182.665 174.496 1.00 46.80 C
ATOM 1136 OG SER B 223 175.346 182.505 173.552 1.00 46.80 O
ATOM 1137 N THR B 224 178.769 184.824 175.709 1.00 44.17 N
ATOM 1138 CA THR B 224 179.802 184.930 176.726 1.00 44.17 C
ATOM 1139 C THR B 224 179.209 185.562 177.976 1.00 44.17 C
ATOM 1140 O THR B 224 178.297 186.387 177.894 1.00 44.17 O
ATOM 1141 CB THR B 224 180.984 185.760 176.229 1.00 44.17 C
ATOM 1142 OG1 THR B 224 181.460 185.219 174.992 1.00 44.17 O
ATOM 1143 CG2 THR B 224 182.108 185.743 177.241 1.00 44.17 C
ATOM 1144 N ARG B 225 179.725 185.174 179.138 1.00 46.82 N
ATOM 1145 CA ARG B 225 179.209 185.680 180.400 1.00 46.82 C
ATOM 1146 C ARG B 225 180.361 186.101 181.297 1.00 46.82 C
ATOM 1147 O ARG B 225 181.472 185.584 181.186 1.00 46.82 O
ATOM 1148 CB ARG B 225 178.347 184.639 181.118 1.00 46.82 C
ATOM 1149 CG ARG B 225 177.783 185.130 182.434 1.00 46.82 C
ATOM 1150 CD ARG B 225 176.555 184.347 182.841 1.00 46.82 C
ATOM 1151 NE ARG B 225 176.905 183.096 183.501 1.00 46.82 N
ATOM 1152 CZ ARG B 225 176.041 182.340 184.167 1.00 46.82 C
ATOM 1153 NH1 ARG B 225 176.445 181.217 184.739 1.00 46.82 N
ATOM 1154 NH2 ARG B 225 174.772 182.710 184.262 1.00 46.82 N
ATOM 1155 N TYR B 226 180.083 187.049 182.189 1.00 47.52 N
ATOM 1156 CA TYR B 226 181.085 187.568 183.108 1.00 47.52 C
ATOM 1157 C TYR B 226 180.466 187.718 184.488 1.00 47.52 C
ATOM 1158 O TYR B 226 179.402 188.323 184.626 1.00 47.52 O
ATOM 1159 CB TYR B 226 181.632 188.913 182.627 1.00 47.52 C
ATOM 1160 CG TYR B 226 182.291 188.853 181.272 1.00 47.52 C
ATOM 1161 CD1 TYR B 226 181.541 188.878 180.111 1.00 47.52 C
ATOM 1162 CD2 TYR B 226 183.666 188.783 181.155 1.00 47.52 C

ATOM 1163 CE1 TYR B 226 182.140 188.827 178.876 1.00 47.52 C
ATOM 1164 CE2 TYR B 226 184.272 188.734 179.925 1.00 47.52 C
ATOM 1165 CZ TYR B 226 183.505 188.755 178.789 1.00 47.52 C
ATOM 1166 OH TYR B 226 184.108 188.704 177.558 1.00 47.52 O
ATOM 1167 N VAL B 227 181.136 187.176 185.504 1.00 51.82 N
ATOM 1168 CA VAL B 227 180.628 187.169 186.869 1.00 51.82 C
ATOM 1169 C VAL B 227 181.727 187.643 187.806 1.00 51.82 C
ATOM 1170 O VAL B 227 182.917 187.516 187.509 1.00 51.82 O
ATOM 1171 CB VAL B 227 180.137 185.772 187.285 1.00 51.82 C
ATOM 1172 CG1 VAL B 227 179.180 185.230 186.252 1.00 51.82 C
ATOM 1173 CG2 VAL B 227 181.313 184.846 187.454 1.00 51.82 C
ATOM 1174 N THR B 228 181.323 188.184 188.952 1.00 59.73 N
ATOM 1175 CA THR B 228 182.276 188.768 189.886 1.00 59.73 C
ATOM 1176 C THR B 228 182.718 187.811 190.985 1.00 59.73 C
ATOM 1177 O THR B 228 183.720 188.084 191.654 1.00 59.73 O
ATOM 1178 CB THR B 228 181.688 190.027 190.526 1.00 59.73 C
ATOM 1179 OG1 THR B 228 182.738 190.791 191.128 1.00 59.73 O
ATOM 1180 CG2 THR B 228 180.679 189.655 191.587 1.00 59.73 C
ATOM 1181 N VAL B 229 182.007 186.705 191.191 1.00 68.98 N
ATOM 1182 CA VAL B 229 182.353 185.717 192.214 1.00 68.98 C
ATOM 1183 C VAL B 229 182.138 184.341 191.589 1.00 68.98 C
ATOM 1184 O VAL B 229 181.008 183.853 191.496 1.00 68.98 O
ATOM 1185 CB VAL B 229 181.529 185.876 193.493 1.00 68.98 C
ATOM 1186 CG1 VAL B 229 181.830 184.745 194.450 1.00 68.98 C
ATOM 1187 CG2 VAL B 229 181.823 187.208 194.143 1.00 68.98 C
ATOM 1188 N LYS B 230 183.227 183.698 191.169 1.00 82.59 N
ATOM 1189 CA LYS B 230 183.109 182.392 190.530 1.00 82.59 C
ATOM 1190 C LYS B 230 182.942 181.286 191.563 1.00 82.59 C
ATOM 1191 O LYS B 230 181.953 180.546 191.534 1.00 82.59 O
ATOM 1192 CB LYS B 230 184.327 182.125 189.646 1.00 82.59 C
ATOM 1193 CG LYS B 230 184.120 181.013 188.628 1.00 82.59 C
ATOM 1194 CD LYS B 230 185.390 180.745 187.843 1.00 82.59 C
ATOM 1195 CE LYS B 230 186.138 182.037 187.566 1.00 82.59 C
ATOM 1196 NZ LYS B 230 187.425 181.793 186.864 1.00 82.59 N

ATOM 1197 N ASP B 231 183.896 181.157 192.480 1.00 97.30 N
ATOM 1198 CA ASP B 231 183.778 180.172 193.543 1.00 97.30 C
ATOM 1199 C ASP B 231 182.660 180.575 194.501 1.00 97.30 C
ATOM 1200 O ASP B 231 182.034 181.630 194.367 1.00 97.30 O
ATOM 1201 CB ASP B 231 185.104 180.025 194.285 1.00 97.30 C
ATOM 1202 CG ASP B 231 185.515 181.295 195.001 1.00 97.30 C
ATOM 1203 OD1 ASP B 231 184.962 181.574 196.085 1.00 97.30 O
ATOM 1204 OD2 ASP B 231 186.393 182.016 194.482 1.00 97.30 O
ATOM 1205 N GLN B 232 182.403 179.722 195.483 1.00106.92 N
ATOM 1206 CA GLN B 232 181.382 179.970 196.488 1.00106.92 C
ATOM 1207 C GLN B 232 182.027 180.019 197.870 1.00106.92 C
ATOM 1208 O GLN B 232 183.184 179.637 198.058 1.00106.92 O
ATOM 1209 CB GLN B 232 180.285 178.905 196.426 1.00106.92 C
ATOM 1210 CG GLN B 232 179.294 179.111 195.296 1.00106.92 C
ATOM 1211 CD GLN B 232 179.882 178.776 193.941 1.00106.92 C
ATOM 1212 OE1 GLN B 232 181.048 178.400 193.834 1.00106.92 O
ATOM 1213 NE2 GLN B 232 179.074 178.908 192.896 1.00106.92 N
ATOM 1214 N TRP B 233 181.254 180.488 198.846 1.00116.94 N
ATOM 1215 CA TRP B 233 181.750 180.691 200.199 1.00116.94 C
ATOM 1216 C TRP B 233 180.774 180.065 201.182 1.00116.94 C
ATOM 1217 O TRP B 233 179.578 180.366 201.148 1.00116.94 O
ATOM 1218 CB TRP B 233 181.929 182.184 200.496 1.00116.94 C
ATOM 1219 CG TRP B 233 182.234 182.494 201.927 1.00116.94 C
ATOM 1220 CD1 TRP B 233 181.337 182.619 202.948 1.00116.94 C
ATOM 1221 CD2 TRP B 233 183.525 182.735 202.497 1.00116.94 C
ATOM 1222 NE1 TRP B 233 181.991 182.914 204.119 1.00116.94 N
ATOM 1223 CE2 TRP B 233 183.336 182.992 203.869 1.00116.94 C
ATOM 1224 CE3 TRP B 233 184.823 182.755 201.981 1.00116.94 C
ATOM 1225 CZ2 TRP B 233 184.395 183.265 204.731 1.00116.94 C
ATOM 1226 CZ3 TRP B 233 185.873 183.027 202.838 1.00116.94 C
ATOM 1227 CH2 TRP B 233 185.653 183.278 204.197 1.00116.94 C
ATOM 1228 N HIS B 234 181.286 179.196 202.054 1.00116.44 N
ATOM 1229 CA HIS B 234 180.450 178.529 203.051 1.00116.44 C
ATOM 1230 C HIS B 234 181.337 178.208 204.251 1.00116.44 C

ATOM 1231 O HIS B 234 182.110 177.246 204.214 1.00116.44 O
ATOM 1232 CB HIS B 234 179.802 177.277 202.479 1.00116.44 C
ATOM 1233 CG HIS B 234 178.513 177.539 201.762 1.00116.44 C
ATOM 1234 ND1 HIS B 234 178.433 178.341 200.644 1.00116.44 N
ATOM 1235 CD2 HIS B 234 177.252 177.111 202.009 1.00116.44 C
ATOM 1236 CE1 HIS B 234 177.179 178.393 200.230 1.00116.44 C
ATOM 1237 NE2 HIS B 234 176.442 177.655 201.041 1.00116.44 N
ATOM 1238 N SER B 235 181.212 179.008 205.305 1.00117.57 N
ATOM 1239 CA SER B 235 182.060 178.877 206.481 1.00117.57 C
ATOM 1240 C SER B 235 181.552 177.739 207.363 1.00117.57 C
ATOM 1241 O SER B 235 180.692 176.946 206.969 1.00117.57 O
ATOM 1242 CB SER B 235 182.121 180.200 207.238 1.00117.57 C
ATOM 1243 OG SER B 235 182.741 180.028 208.500 1.00117.57 O
ATOM 1244 N ARG B 236 182.091 177.645 208.579 1.00118.60 N
ATOM 1245 CA ARG B 236 181.734 176.575 209.507 1.00118.60 C
ATOM 1246 C ARG B 236 180.555 176.963 210.395 1.00118.60 C
ATOM 1247 O ARG B 236 179.518 176.292 210.390 1.00118.60 O
ATOM 1248 CB ARG B 236 182.949 176.204 210.367 1.00118.60 C
ATOM 1249 CG ARG B 236 182.626 175.311 211.558 1.00118.60 C
ATOM 1250 CD ARG B 236 182.422 173.864 211.137 1.00118.60 C
ATOM 1251 NE ARG B 236 181.313 173.715 210.200 1.00118.60 N
ATOM 1252 CZ ARG B 236 181.119 172.646 209.436 1.00118.60 C
ATOM 1253 NH1 ARG B 236 181.960 171.624 209.495 1.00118.60 N
ATOM 1254 NH2 ARG B 236 180.082 172.599 208.612 1.00118.60 N
ATOM 1255 N GLY B 237 180.701 178.038 211.158 1.00115.98 N
ATOM 1256 CA GLY B 237 179.695 178.442 212.119 1.00115.98 C
ATOM 1257 C GLY B 237 180.093 178.083 213.536 1.00115.98 C
ATOM 1258 O GLY B 237 181.229 177.698 213.829 1.00115.98 O
ATOM 1259 N SER B 238 179.123 178.217 214.434 1.00109.24 N
ATOM 1260 CA SER B 238 179.307 177.894 215.842 1.00109.24 C
ATOM 1261 C SER B 238 178.304 176.823 216.244 1.00109.24 C
ATOM 1262 O SER B 238 177.110 176.940 215.946 1.00109.24 O
ATOM 1263 CB SER B 238 179.143 179.138 216.717 1.00109.24 C
ATOM 1264 OG SER B 238 180.343 179.889 216.758 1.00109.24 O

ATOM 1265 N THR B 239 178.792 175.781 216.913 1.00104.29 N
ATOM 1266 CA THR B 239 177.936 174.666 217.294 1.00104.29 C
ATOM 1267 C THR B 239 176.730 175.153 218.085 1.00104.29 C
ATOM 1268 O THR B 239 176.851 175.983 218.989 1.00104.29 O
ATOM 1269 CB THR B 239 178.727 173.653 218.120 1.00104.29 C
ATOM 1270 OG1 THR B 239 179.458 174.341 219.143 1.00104.29 O
ATOM 1271 CG2 THR B 239 179.704 172.901 217.237 1.00104.29 C
ATOM 1272 N TRP B 240 175.555 174.628 217.738 1.00102.21 N
ATOM 1273 CA TRP B 240 174.316 174.939 218.449 1.00102.21 C
ATOM 1274 C TRP B 240 173.912 176.400 218.258 1.00102.21 C
ATOM 1275 O TRP B 240 173.482 177.063 219.201 1.00102.21 O
ATOM 1276 CB TRP B 240 174.435 174.610 219.939 1.00102.21 C
ATOM 1277 CG TRP B 240 174.674 173.163 220.233 1.00102.21 C
ATOM 1278 CD1 TRP B 240 174.517 172.115 219.377 1.00102.21 C
ATOM 1279 CD2 TRP B 240 175.110 172.603 221.476 1.00102.21 C
ATOM 1280 NE1 TRP B 240 174.830 170.936 220.009 1.00102.21 N
ATOM 1281 CE2 TRP B 240 175.197 171.210 221.299 1.00102.21 C
ATOM 1282 CE3 TRP B 240 175.436 173.146 222.722 1.00102.21 C
ATOM 1283 CZ2 TRP B 240 175.597 170.353 222.318 1.00102.21 C
ATOM 1284 CZ3 TRP B 240 175.832 172.295 223.732 1.00102.21 C
ATOM 1285 CH2 TRP B 240 175.910 170.914 223.525 1.00102.21 C
ATOM 1286 N LEU B 241 174.048 176.908 217.035 1.00 99.98 N
ATOM 1287 CA LEU B 241 173.683 178.287 216.738 1.00 99.98 C
ATOM 1288 C LEU B 241 172.973 178.347 215.395 1.00 99.98 C
ATOM 1289 O LEU B 241 173.476 177.823 214.397 1.00 99.98 O
ATOM 1290 CB LEU B 241 174.913 179.198 216.737 1.00 99.98 C
ATOM 1291 CG LEU B 241 175.386 179.609 218.132 1.00 99.98 C
ATOM 1292 CD1 LEU B 241 176.626 180.477 218.052 1.00 99.98 C
ATOM 1293 CD2 LEU B 241 174.279 180.325 218.881 1.00 99.98 C
ATOM 1294 N TYR B 242 171.810 178.991 215.381 1.00 98.34 N
ATOM 1295 CA TYR B 242 170.956 179.063 214.202 1.00 98.34 C
ATOM 1296 C TYR B 242 171.248 180.355 213.449 1.00 98.34 C
ATOM 1297 O TYR B 242 171.108 181.447 214.007 1.00 98.34 O
ATOM 1298 CB TYR B 242 169.491 178.991 214.623 1.00 98.34 C

ATOM 1299 CG TYR B 242 168.493 179.131 213.501 1.00 98.34 C
ATOM 1300 CD1 TYR B 242 168.210 178.067 212.660 1.00 98.34 C
ATOM 1301 CD2 TYR B 242 167.816 180.322 213.299 1.00 98.34 C
ATOM 1302 CE1 TYR B 242 167.292 178.188 211.642 1.00 98.34 C
ATOM 1303 CE2 TYR B 242 166.896 180.453 212.284 1.00 98.34 C
ATOM 1304 CZ TYR B 242 166.638 179.385 211.458 1.00 98.34 C
ATOM 1305 OH TYR B 242 165.720 179.515 210.444 1.00 98.34 O
ATOM 1306 N ARG B 243 171.648 180.231 212.184 1.00100.53 N
ATOM 1307 CA ARG B 243 172.052 181.392 211.403 1.00100.53 C
ATOM 1308 C ARG B 243 171.589 181.239 209.963 1.00100.53 C
ATOM 1309 O ARG B 243 171.412 180.124 209.466 1.00100.53 O
ATOM 1310 CB ARG B 243 173.569 181.585 211.435 1.00100.53 C
ATOM 1311 CG ARG B 243 174.322 180.549 210.629 1.00100.53 C
ATOM 1312 CD ARG B 243 175.745 180.991 210.363 1.00100.53 C
ATOM 1313 NE ARG B 243 176.441 180.068 209.474 1.00100.53 N
ATOM 1314 CZ ARG B 243 177.694 180.227 209.067 1.00100.53 C
ATOM 1315 NH1 ARG B 243 178.396 181.278 209.470 1.00100.53 N
ATOM 1316 NH2 ARG B 243 178.248 179.334 208.259 1.00100.53 N
ATOM 1317 N GLU B 244 171.402 182.377 209.298 1.00 97.60 N
ATOM 1318 CA GLU B 244 171.064 182.422 207.884 1.00 97.60 C
ATOM 1319 C GLU B 244 171.817 183.575 207.237 1.00 97.60 C
ATOM 1320 O GLU B 244 171.953 184.646 207.832 1.00 97.60 O
ATOM 1321 CB GLU B 244 169.556 182.581 207.671 1.00 97.60 C
ATOM 1322 CG GLU B 244 169.011 183.935 208.066 1.00 97.60 C
ATOM 1323 CD GLU B 244 168.943 184.112 209.564 1.00 97.60 C
ATOM 1324 OE1 GLU B 244 169.777 183.508 210.269 1.00 97.60 O
ATOM 1325 OE2 GLU B 244 168.051 184.845 210.039 1.00 97.60 O
ATOM 1326 N THR B 245 172.298 183.350 206.020 1.00 96.12 N
ATOM 1327 CA THR B 245 173.220 184.262 205.357 1.00 96.12 C
ATOM 1328 C THR B 245 172.571 184.869 204.112 1.00 96.12 C
ATOM 1329 O THR B 245 171.392 184.646 203.825 1.00 96.12 O
ATOM 1330 CB THR B 245 174.517 183.533 205.007 1.00 96.12 C
ATOM 1331 OG1 THR B 245 174.210 182.346 204.267 1.00 96.12 O
ATOM 1332 CG2 THR B 245 175.259 183.150 206.272 1.00 96.12 C

ATOM 1333 N CYS B 246 173.360 185.647 203.373 1.00 95.23 N
ATOM 1334 CA CYS B 246 172.896 186.314 202.159 1.00 95.23 C
ATOM 1335 C CYS B 246 174.106 186.630 201.298 1.00 95.23 C
ATOM 1336 O CYS B 246 174.967 187.411 201.711 1.00 95.23 O
ATOM 1337 CB CYS B 246 172.128 187.590 202.497 1.00 95.23 C
ATOM 1338 SG CYS B 246 171.495 188.488 201.064 1.00 95.23 S
ATOM 1339 N ASN B 247 174.175 186.033 200.111 1.00 90.19 N
ATOM 1340 CA ASN B 247 175.306 186.202 199.210 1.00 90.19 C
ATOM 1341 C ASN B 247 174.873 186.952 197.960 1.00 90.19 C
ATOM 1342 O ASN B 247 173.745 186.787 197.486 1.00 90.19 O
ATOM 1343 CB ASN B 247 175.905 184.850 198.826 1.00 90.19 C
ATOM 1344 CG ASN B 247 176.683 184.220 199.957 1.00 90.19 C
ATOM 1345 OD1 ASN B 247 177.346 184.912 200.728 1.00 90.19 O
ATOM 1346 ND2 ASN B 247 176.606 182.900 200.067 1.00 90.19 N
ATOM 1347 N LEU B 248 175.775 187.770 197.426 1.00 79.57 N
ATOM 1348 CA LEU B 248 175.495 188.626 196.283 1.00 79.57 C
ATOM 1349 C LEU B 248 176.338 188.210 195.084 1.00 79.57 C
ATOM 1350 O LEU B 248 177.344 187.509 195.212 1.00 79.57 O
ATOM 1351 CB LEU B 248 175.762 190.093 196.625 1.00 79.57 C
ATOM 1352 CG LEU B 248 175.002 191.114 195.787 1.00 79.57 C
ATOM 1353 CD1 LEU B 248 173.512 190.924 195.966 1.00 79.57 C
ATOM 1354 CD2 LEU B 248 175.411 192.519 196.172 1.00 79.57 C
ATOM 1355 N ASN B 249 175.913 188.662 193.906 1.00 64.92 N
ATOM 1356 CA ASN B 249 176.588 188.304 192.667 1.00 64.92 C
ATOM 1357 C ASN B 249 176.128 189.251 191.569 1.00 64.92 C
ATOM 1358 O ASN B 249 174.954 189.623 191.521 1.00 64.92 O
ATOM 1359 CB ASN B 249 176.290 186.851 192.280 1.00 64.92 C
ATOM 1360 CG ASN B 249 177.309 186.287 191.323 1.00 64.92 C
ATOM 1361 OD1 ASN B 249 178.406 186.820 191.186 1.00 64.92 O
ATOM 1362 ND2 ASN B 249 176.954 185.199 190.655 1.00 64.92 N
ATOM 1363 N CYS B 250 177.057 189.633 190.693 1.00 57.10 N
ATOM 1364 CA CYS B 250 176.793 190.585 189.619 1.00 57.10 C
ATOM 1365 C CYS B 250 177.326 190.003 188.321 1.00 57.10 C
ATOM 1366 O CYS B 250 178.521 189.711 188.221 1.00 57.10 O

ATOM 1367 CB CYS B 250 177.450 191.937 189.915 1.00 57.10 C
ATOM 1368 SG CYS B 250 177.202 193.207 188.664 1.00 57.10 S
ATOM 1369 N MET B 251 176.451 189.833 187.333 1.00 46.38 N
ATOM 1370 CA MET B 251 176.832 189.188 186.086 1.00 46.38 C
ATOM 1371 C MET B 251 176.300 189.976 184.898 1.00 46.38 C
ATOM 1372 O MET B 251 175.259 190.629 184.984 1.00 46.38 O
ATOM 1373 CB MET B 251 176.331 187.742 186.033 1.00 46.38 C
ATOM 1374 CG MET B 251 174.834 187.611 185.945 1.00 46.38 C
ATOM 1375 SD MET B 251 174.315 185.889 185.923 1.00 46.38 S
ATOM 1376 CE MET B 251 174.988 185.325 187.479 1.00 46.38 C
ATOM 1377 N VAL B 252 177.035 189.904 183.785 1.00 39.69 N
ATOM 1378 CA VAL B 252 176.734 190.648 182.565 1.00 39.69 C
ATOM 1379 C VAL B 252 176.980 189.778 181.340 1.00 39.69 C
ATOM 1380 O VAL B 252 178.129 189.594 180.928 1.00 39.69 O
ATOM 1381 CB VAL B 252 177.583 191.926 182.482 1.00 39.69 C
ATOM 1382 CG1 VAL B 252 177.560 192.469 181.078 1.00 39.69 C
ATOM 1383 CG2 VAL B 252 177.085 192.959 183.461 1.00 39.69 C
ATOM 1384 N THR B 253 175.920 189.256 180.734 1.00 35.31 N
ATOM 1385 CA THR B 253 176.072 188.400 179.567 1.00 35.31 C
ATOM 1386 C THR B 253 176.160 189.232 178.290 1.00 35.31 C
ATOM 1387 O THR B 253 175.989 190.451 178.299 1.00 35.31 O
ATOM 1388 CB THR B 253 174.918 187.403 179.480 1.00 35.31 C
ATOM 1389 OG1 THR B 253 175.020 186.651 178.267 1.00 35.31 O
ATOM 1390 CG2 THR B 253 173.599 188.123 179.507 1.00 35.31 C
ATOM 1391 N ILE B 254 176.454 188.556 177.179 1.00 37.00 N
ATOM 1392 CA ILE B 254 176.567 189.195 175.869 1.00 37.00 C
ATOM 1393 C ILE B 254 176.126 188.219 174.787 1.00 37.00 C
ATOM 1394 O ILE B 254 176.742 187.163 174.609 1.00 37.00 O
ATOM 1395 CB ILE B 254 178.002 189.680 175.607 1.00 37.00 C
ATOM 1396 CG1 ILE B 254 178.365 190.819 176.553 1.00 37.00 C
ATOM 1397 CG2 ILE B 254 178.150 190.130 174.174 1.00 37.00 C
ATOM 1398 CD1 ILE B 254 179.747 191.360 176.331 1.00 37.00 C
ATOM 1399 N THR B 255 175.078 188.564 174.040 1.00 37.85 N
ATOM 1400 CA THR B 255 174.511 187.636 173.067 1.00 37.85 C

ATOM 1401 C THR B 255 174.257 188.294 171.716 1.00 37.85 C
ATOM 1402 O THR B 255 174.686 189.427 171.482 1.00 37.85 O
ATOM 1403 CB THR B 255 173.215 187.040 173.605 1.00 37.85 C
ATOM 1404 OG1 THR B 255 172.272 188.089 173.843 1.00 37.85 O
ATOM 1405 CG2 THR B 255 173.475 186.314 174.902 1.00 37.85 C
ATOM 1406 N THR B 256 173.565 187.591 170.819 1.00 39.35 N
ATOM 1407 CA THR B 256 173.273 188.092 169.479 1.00 39.35 C
ATOM 1408 C THR B 256 171.822 187.796 169.141 1.00 39.35 C
ATOM 1409 O THR B 256 171.410 186.634 169.165 1.00 39.35 O
ATOM 1410 CB THR B 256 174.189 187.454 168.437 1.00 39.35 C
ATOM 1411 OG1 THR B 256 173.714 186.138 168.138 1.00 39.35 O
ATOM 1412 CG2 THR B 256 175.602 187.358 168.965 1.00 39.35 C
ATOM 1413 N ALA B 257 171.059 188.832 168.807 1.00 38.91 N
ATOM 1414 CA ALA B 257 169.642 188.712 168.512 1.00 38.91 C
ATOM 1415 C ALA B 257 169.420 188.582 167.009 1.00 38.91 C
ATOM 1416 O ALA B 257 170.349 188.685 166.209 1.00 38.91 O
ATOM 1417 CB ALA B 257 168.879 189.906 169.077 1.00 38.91 C
ATOM 1418 N ARG B 258 168.166 188.357 166.619 1.00 44.69 N
ATOM 1419 CA ARG B 258 167.838 188.204 165.203 1.00 44.69 C
ATOM 1420 C ARG B 258 166.347 188.438 165.004 1.00 44.69 C
ATOM 1421 O ARG B 258 165.530 187.663 165.510 1.00 44.69 O
ATOM 1422 CB ARG B 258 168.238 186.823 164.707 1.00 44.69 C
ATOM 1423 CG ARG B 258 167.333 186.290 163.619 1.00 44.69 C
ATOM 1424 CD ARG B 258 167.890 185.022 163.011 1.00 44.69 C
ATOM 1425 NE ARG B 258 169.238 185.216 162.493 1.00 44.69 N
ATOM 1426 CZ ARG B 258 169.949 184.266 161.901 1.00 44.69 C
ATOM 1427 NH1 ARG B 258 171.169 184.526 161.459 1.00 44.69 N
ATOM 1428 NH2 ARG B 258 169.439 183.054 161.753 1.00 44.69 N
ATOM 1429 N SER B 259 165.997 189.484 164.260 1.00 47.82 N
ATOM 1430 CA SER B 259 164.622 189.781 163.891 1.00 47.82 C
ATOM 1431 C SER B 259 164.433 189.573 162.396 1.00 47.82 C
ATOM 1432 O SER B 259 165.396 189.404 161.645 1.00 47.82 O
ATOM 1433 CB SER B 259 164.247 191.214 164.275 1.00 47.82 C
ATOM 1434 OG SER B 259 165.266 192.118 163.901 1.00 47.82 O

ATOM 1435 N LYS B 260 163.175 189.596 161.958 1.00 58.72 N
ATOM 1436 CA LYS B 260 162.863 189.381 160.553 1.00 58.72 C
ATOM 1437 C LYS B 260 161.646 190.201 160.148 1.00 58.72 C
ATOM 1438 O LYS B 260 160.882 190.680 160.988 1.00 58.72 O
ATOM 1439 CB LYS B 260 162.639 187.897 160.252 1.00 58.72 C
ATOM 1440 CG LYS B 260 161.532 187.259 161.047 1.00 58.72 C
ATOM 1441 CD LYS B 260 161.387 185.805 160.654 1.00 58.72 C
ATOM 1442 CE LYS B 260 162.606 185.007 161.086 1.00 58.72 C
ATOM 1443 NZ LYS B 260 162.427 183.548 160.862 1.00 58.72 N
ATOM 1444 N TYR B 261 161.484 190.353 158.838 1.00 62.19 N
ATOM 1445 CA TYR B 261 160.485 191.253 158.281 1.00 62.19 C
ATOM 1446 C TYR B 261 159.115 190.973 158.896 1.00 62.19 C
ATOM 1447 O TYR B 261 158.742 189.806 159.067 1.00 62.19 O
ATOM 1448 CB TYR B 261 160.430 191.081 156.761 1.00 62.19 C
ATOM 1449 CG TYR B 261 159.768 192.215 156.014 1.00 62.19 C
ATOM 1450 CD1 TYR B 261 160.481 193.355 155.674 1.00 62.19 C
ATOM 1451 CD2 TYR B 261 158.441 192.136 155.628 1.00 62.19 C
ATOM 1452 CE1 TYR B 261 159.885 194.388 154.987 1.00 62.19 C
ATOM 1453 CE2 TYR B 261 157.838 193.164 154.939 1.00 62.19 C
ATOM 1454 CZ TYR B 261 158.565 194.288 154.622 1.00 62.19 C
ATOM 1455 OH TYR B 261 157.968 195.318 153.935 1.00 62.19 O
ATOM 1456 N PRO B 262 158.329 192.012 159.229 1.00 59.61 N
ATOM 1457 CA PRO B 262 158.623 193.438 159.056 1.00 59.61 C
ATOM 1458 C PRO B 262 159.368 194.103 160.218 1.00 59.61 C
ATOM 1459 O PRO B 262 159.278 195.320 160.363 1.00 59.61 O
ATOM 1460 CB PRO B 262 157.233 194.049 158.916 1.00 59.61 C
ATOM 1461 CG PRO B 262 156.394 193.200 159.778 1.00 59.61 C
ATOM 1462 CD PRO B 262 156.931 191.800 159.642 1.00 59.61 C
ATOM 1463 N TYR B 263 160.090 193.325 161.024 1.00 58.28 N
ATOM 1464 CA TYR B 263 160.946 193.856 162.085 1.00 58.28 C
ATOM 1465 C TYR B 263 160.148 194.668 163.110 1.00 58.28 C
ATOM 1466 O TYR B 263 160.310 195.880 163.240 1.00 58.28 O
ATOM 1467 CB TYR B 263 162.070 194.730 161.514 1.00 58.28 C
ATOM 1468 CG TYR B 263 162.711 194.235 160.246 1.00 58.28 C

ATOM 1469 CD1 TYR B 263 163.138 192.927 160.124 1.00 58.28 C
ATOM 1470 CD2 TYR B 263 162.917 195.090 159.178 1.00 58.28 C
ATOM 1471 CE1 TYR B 263 163.732 192.477 158.968 1.00 58.28 C
ATOM 1472 CE2 TYR B 263 163.513 194.650 158.020 1.00 58.28 C
ATOM 1473 CZ TYR B 263 163.918 193.342 157.920 1.00 58.28 C
ATOM 1474 OH TYR B 263 164.513 192.899 156.765 1.00 58.28 O
ATOM 1475 N HIS B 264 159.269 193.977 163.842 1.00 60.83 N
ATOM 1476 CA HIS B 264 158.751 194.613 165.048 1.00 60.83 C
ATOM 1477 C HIS B 264 158.770 193.671 166.248 1.00 60.83 C
ATOM 1478 O HIS B 264 157.908 193.765 167.126 1.00 60.83 O
ATOM 1479 CB HIS B 264 157.342 195.187 164.847 1.00 60.83 C
ATOM 1480 CG HIS B 264 156.299 194.179 164.477 1.00 60.83 C
ATOM 1481 ND1 HIS B 264 155.604 194.236 163.289 1.00 60.83 N
ATOM 1482 CD2 HIS B 264 155.819 193.103 165.143 1.00 60.83 C
ATOM 1483 CE1 HIS B 264 154.744 193.235 163.236 1.00 60.83 C
ATOM 1484 NE2 HIS B 264 154.856 192.530 164.348 1.00 60.83 N
ATOM 1485 N PHE B 265 159.734 192.753 166.296 1.00 47.73 N
ATOM 1486 CA PHE B 265 160.072 192.055 167.531 1.00 47.73 C
ATOM 1487 C PHE B 265 161.301 191.187 167.308 1.00 47.73 C
ATOM 1488 O PHE B 265 161.434 190.571 166.247 1.00 47.73 O
ATOM 1489 CB PHE B 265 158.893 191.217 168.020 1.00 47.73 C
ATOM 1490 CG PHE B 265 158.917 189.800 167.541 1.00 47.73 C
ATOM 1491 CD1 PHE B 265 158.418 189.468 166.299 1.00 47.73 C
ATOM 1492 CD2 PHE B 265 159.429 188.796 168.338 1.00 47.73 C
ATOM 1493 CE1 PHE B 265 158.435 188.162 165.859 1.00 47.73 C
ATOM 1494 CE2 PHE B 265 159.449 187.489 167.903 1.00 47.73 C
ATOM 1495 CZ PHE B 265 158.951 187.172 166.662 1.00 47.73 C
ATOM 1496 N PHE B 266 162.199 191.112 168.287 1.00 38.77 N
ATOM 1497 CA PHE B 266 163.395 190.293 168.158 1.00 38.77 C
ATOM 1498 C PHE B 266 163.589 189.436 169.398 1.00 38.77 C
ATOM 1499 O PHE B 266 163.114 189.762 170.485 1.00 38.77 O
ATOM 1500 CB PHE B 266 164.642 191.143 167.907 1.00 38.77 C
ATOM 1501 CG PHE B 266 164.955 192.120 168.997 1.00 38.77 C
ATOM 1502 CD1 PHE B 266 165.740 191.751 170.069 1.00 38.77 C

ATOM 1503 CD2 PHE B 266 164.501 193.419 168.930 1.00 38.77 C
ATOM 1504 CE1 PHE B 266 166.046 192.654 171.063 1.00 38.77 C
ATOM 1505 CE2 PHE B 266 164.807 194.326 169.923 1.00 38.77 C
ATOM 1506 CZ PHE B 266 165.581 193.943 170.987 1.00 38.77 C
ATOM 1507 N ALA B 267 164.306 188.329 169.217 1.00 37.76 N
ATOM 1508 CA ALA B 267 164.547 187.356 170.274 1.00 37.76 C
ATOM 1509 C ALA B 267 166.026 187.012 170.318 1.00 37.76 C
ATOM 1510 O ALA B 267 166.614 186.668 169.290 1.00 37.76 O
ATOM 1511 CB ALA B 267 163.720 186.089 170.056 1.00 37.76 C
ATOM 1512 N THR B 268 166.618 187.085 171.506 1.00 39.01 N
ATOM 1513 CA THR B 268 168.050 186.867 171.668 1.00 39.01 C
ATOM 1514 C THR B 268 168.354 185.371 171.656 1.00 39.01 C
ATOM 1515 O THR B 268 167.504 184.541 171.326 1.00 39.01 O
ATOM 1516 CB THR B 268 168.545 187.534 172.945 1.00 39.01 C
ATOM 1517 OG1 THR B 268 167.822 187.016 174.064 1.00 39.01 O
ATOM 1518 CG2 THR B 268 168.333 189.031 172.875 1.00 39.01 C
ATOM 1519 N SER B 269 169.588 185.012 172.009 1.00 40.29 N
ATOM 1520 CA SER B 269 170.025 183.621 172.022 1.00 40.29 C
ATOM 1521 C SER B 269 169.747 182.935 173.353 1.00 40.29 C
ATOM 1522 O SER B 269 169.368 181.760 173.374 1.00 40.29 O
ATOM 1523 CB SER B 269 171.518 183.530 171.704 1.00 40.29 C
ATOM 1524 OG SER B 269 171.760 183.716 170.323 1.00 40.29 O
ATOM 1525 N THR B 270 169.938 183.640 174.469 1.00 41.24 N
ATOM 1526 CA THR B 270 169.670 183.052 175.775 1.00 41.24 C
ATOM 1527 C THR B 270 168.191 182.758 175.988 1.00 41.24 C
ATOM 1528 O THR B 270 167.853 181.964 176.870 1.00 41.24 O
ATOM 1529 CB THR B 270 170.191 183.969 176.881 1.00 41.24 C
ATOM 1530 OG1 THR B 270 169.472 185.207 176.867 1.00 41.24 O
ATOM 1531 CG2 THR B 270 171.660 184.245 176.679 1.00 41.24 C
ATOM 1532 N GLY B 271 167.302 183.381 175.219 1.00 39.88 N
ATOM 1533 CA GLY B 271 165.899 183.016 175.265 1.00 39.88 C
ATOM 1534 C GLY B 271 164.933 184.176 175.371 1.00 39.88 C
ATOM 1535 O GLY B 271 163.724 184.002 175.198 1.00 39.88 O
ATOM 1536 N ASP B 272 165.455 185.367 175.641 1.00 42.71 N

ATOM 1537 CA ASP B 272 164.633 186.530 175.941 1.00 42.71 C
ATOM 1538 C ASP B 272 163.816 186.961 174.722 1.00 42.71 C
ATOM 1539 O ASP B 272 163.976 186.447 173.617 1.00 42.71 O
ATOM 1540 CB ASP B 272 165.523 187.672 176.420 1.00 42.71 C
ATOM 1541 CG ASP B 272 165.970 187.489 177.845 1.00 42.71 C
ATOM 1542 OD1 ASP B 272 165.142 187.037 178.668 1.00 42.71 O
ATOM 1543 OD2 ASP B 272 167.123 187.850 178.164 1.00 42.71 O
ATOM 1544 N VAL B 273 162.926 187.926 174.939 1.00 39.85 N
ATOM 1545 CA VAL B 273 162.051 188.433 173.883 1.00 39.85 C
ATOM 1546 C VAL B 273 161.590 189.829 174.276 1.00 39.85 C
ATOM 1547 O VAL B 273 161.316 190.101 175.448 1.00 39.85 O
ATOM 1548 CB VAL B 273 160.842 187.498 173.645 1.00 39.85 C
ATOM 1549 CG1 VAL B 273 159.814 188.185 172.782 1.00 39.85 C
ATOM 1550 CG2 VAL B 273 161.277 186.205 172.994 1.00 39.85 C
ATOM 1551 N VAL B 274 161.500 190.714 173.286 1.00 42.22 N
ATOM 1552 CA VAL B 274 161.003 192.070 173.478 1.00 42.22 C
ATOM 1553 C VAL B 274 160.200 192.462 172.245 1.00 42.22 C
ATOM 1554 O VAL B 274 160.283 191.828 171.193 1.00 42.22 O
ATOM 1555 CB VAL B 274 162.137 193.080 173.723 1.00 42.22 C
ATOM 1556 CG1 VAL B 274 162.881 192.728 174.984 1.00 42.22 C
ATOM 1557 CG2 VAL B 274 163.073 193.077 172.560 1.00 42.22 C
ATOM 1558 N ASP B 275 159.410 193.525 172.382 1.00 51.68 N
ATOM 1559 CA ASP B 275 158.542 194.003 171.306 1.00 51.68 C
ATOM 1560 C ASP B 275 158.925 195.436 170.961 1.00 51.68 C
ATOM 1561 O ASP B 275 158.313 196.393 171.437 1.00 51.68 O
ATOM 1562 CB ASP B 275 157.085 193.896 171.706 1.00 51.68 C
ATOM 1563 CG ASP B 275 156.575 192.477 171.661 1.00 51.68 C
ATOM 1564 OD1 ASP B 275 157.372 191.573 171.341 1.00 51.68 O
ATOM 1565 OD2 ASP B 275 155.379 192.262 171.945 1.00 51.68 O
ATOM 1566 N ILE B 276 159.930 195.576 170.101 1.00 48.86 N
ATOM 1567 CA ILE B 276 160.347 196.875 169.589 1.00 48.86 C
ATOM 1568 C ILE B 276 161.059 196.617 168.275 1.00 48.86 C
ATOM 1569 O ILE B 276 161.521 195.508 168.012 1.00 48.86 O
ATOM 1570 CB ILE B 276 161.259 197.629 170.589 1.00 48.86 C

ATOM 1571 CG1 ILE B 276 160.518 197.934 171.886 1.00 48.86 C
ATOM 1572 CG2 ILE B 276 161.762 198.916 169.986 1.00 48.86 C
ATOM 1573 CD1 ILE B 276 161.231 198.930 172.761 1.00 48.86 C
ATOM 1574 N SER B 277 161.142 197.632 167.444 1.00 56.45 N
ATOM 1575 CA SER B 277 161.877 197.423 166.207 1.00 56.45 C
ATOM 1576 C SER B 277 163.299 197.915 166.372 1.00 56.45 C
ATOM 1577 O SER B 277 163.505 199.061 166.795 1.00 56.45 O
ATOM 1578 CB SER B 277 161.206 198.155 165.050 1.00 56.45 C
ATOM 1579 OG SER B 277 160.114 197.408 164.545 1.00 56.45 O
ATOM 1580 N PRO B 278 164.297 197.095 166.055 1.00 52.41 N
ATOM 1581 CA PRO B 278 165.687 197.522 166.258 1.00 52.41 C
ATOM 1582 C PRO B 278 165.984 198.902 165.714 1.00 52.41 C
ATOM 1583 O PRO B 278 166.898 199.570 166.212 1.00 52.41 O
ATOM 1584 CB PRO B 278 166.488 196.442 165.522 1.00 52.41 C
ATOM 1585 CG PRO B 278 165.609 195.258 165.519 1.00 52.41 C
ATOM 1586 CD PRO B 278 164.206 195.760 165.447 1.00 52.41 C
ATOM 1587 N PHE B 279 165.240 199.358 164.708 1.00 59.30 N
ATOM 1588 CA PHE B 279 165.488 200.647 164.078 1.00 59.30 C
ATOM 1589 C PHE B 279 164.768 201.799 164.763 1.00 59.30 C
ATOM 1590 O PHE B 279 165.045 202.958 164.439 1.00 59.30 O
ATOM 1591 CB PHE B 279 165.073 200.603 162.605 1.00 59.30 C
ATOM 1592 CG PHE B 279 165.524 199.368 161.884 1.00 59.30 C
ATOM 1593 CD1 PHE B 279 166.823 199.249 161.435 1.00 59.30 C
ATOM 1594 CD2 PHE B 279 164.646 198.329 161.651 1.00 59.30 C
ATOM 1595 CE1 PHE B 279 167.237 198.117 160.772 1.00 59.30 C
ATOM 1596 CE2 PHE B 279 165.056 197.196 160.989 1.00 59.30 C
ATOM 1597 CZ PHE B 279 166.353 197.091 160.549 1.00 59.30 C
ATOM 1598 N TYR B 280 163.863 201.519 165.693 1.00 64.58 N
ATOM 1599 CA TYR B 280 163.054 202.570 166.300 1.00 64.58 C
ATOM 1600 C TYR B 280 163.924 203.465 167.166 1.00 64.58 C
ATOM 1601 O TYR B 280 164.399 203.045 168.224 1.00 64.58 O
ATOM 1602 CB TYR B 280 161.929 201.964 167.131 1.00 64.58 C
ATOM 1603 CG TYR B 280 161.322 202.949 168.099 1.00 64.58 C
ATOM 1604 CD1 TYR B 280 160.334 203.825 167.693 1.00 64.58 C

ATOM 1605 CD2 TYR B 280 161.742 203.012 169.414 1.00 64.58 C
ATOM 1606 CE1 TYR B 280 159.780 204.730 168.567 1.00 64.58 C
ATOM 1607 CE2 TYR B 280 161.194 203.917 170.294 1.00 64.58 C
ATOM 1608 CZ TYR B 280 160.213 204.772 169.865 1.00 64.58 C
ATOM 1609 OH TYR B 280 159.660 205.676 170.739 1.00 64.58 O
ATOM 1610 N ASN B 281 164.143 204.695 166.727 1.00 70.38 N
ATOM 1611 CA ASN B 281 164.626 205.737 167.613 1.00 70.38 C
ATOM 1612 C ASN B 281 163.437 206.565 168.091 1.00 70.38 C
ATOM 1613 O ASN B 281 162.277 206.174 167.937 1.00 70.38 O
ATOM 1614 CB ASN B 281 165.709 206.581 166.939 1.00 70.38 C
ATOM 1615 CG ASN B 281 165.379 206.931 165.515 1.00 70.38 C
ATOM 1616 OD1 ASN B 281 164.252 206.752 165.061 1.00 70.38 O
ATOM 1617 ND2 ASN B 281 166.373 207.427 164.791 1.00 70.38 N
ATOM 1618 N GLY B 282 163.723 207.703 168.711 1.00 73.55 N
ATOM 1619 CA GLY B 282 162.702 208.522 169.332 1.00 73.55 C
ATOM 1620 C GLY B 282 161.427 208.768 168.547 1.00 73.55 C
ATOM 1621 O GLY B 282 160.332 208.616 169.095 1.00 73.55 O
ATOM 1622 N THR B 283 161.541 209.142 167.273 1.00 77.44 N
ATOM 1623 CA THR B 283 160.429 209.722 166.520 1.00 77.44 C
ATOM 1624 C THR B 283 160.184 208.978 165.209 1.00 77.44 C
ATOM 1625 O THR B 283 160.083 209.579 164.139 1.00 77.44 O
ATOM 1626 CB THR B 283 160.687 211.199 166.245 1.00 77.44 C
ATOM 1627 OG1 THR B 283 161.521 211.329 165.088 1.00 77.44 O
ATOM 1628 CG2 THR B 283 161.388 211.840 167.431 1.00 77.44 C
ATOM 1629 N ASN B 284 160.082 207.651 165.271 1.00 76.77 N
ATOM 1630 CA ASN B 284 159.776 206.845 164.093 1.00 76.77 C
ATOM 1631 C ASN B 284 158.618 205.893 164.351 1.00 76.77 C
ATOM 1632 O ASN B 284 158.578 204.795 163.793 1.00 76.77 O
ATOM 1633 CB ASN B 284 161.000 206.061 163.628 1.00 76.77 C
ATOM 1634 CG ASN B 284 162.093 206.954 163.111 1.00 76.77 C
ATOM 1635 OD1 ASN B 284 161.951 208.174 163.085 1.00 76.77 O
ATOM 1636 ND2 ASN B 284 163.199 206.352 162.694 1.00 76.77 N
ATOM 1637 N ARG B 285 157.668 206.294 165.198 1.00 78.71 N
ATOM 1638 CA ARG B 285 156.547 205.413 165.503 1.00 78.71 C

ATOM 1639 C ARG B 285 155.742 205.071 164.256 1.00 78.71 C
ATOM 1640 O ARG B 285 155.118 204.006 164.196 1.00 78.71 O
ATOM 1641 CB ARG B 285 155.645 206.057 166.553 1.00 78.71 C
ATOM 1642 CG ARG B 285 156.277 206.180 167.922 1.00 78.71 C
ATOM 1643 CD ARG B 285 155.246 205.971 169.015 1.00 78.71 C
ATOM 1644 NE ARG B 285 154.449 204.771 168.783 1.00 78.71 N
ATOM 1645 CZ ARG B 285 153.653 204.217 169.691 1.00 78.71 C
ATOM 1646 NH1 ARG B 285 153.546 204.753 170.897 1.00 78.71 N
ATOM 1647 NH2 ARG B 285 152.965 203.124 169.393 1.00 78.71 N
ATOM 1648 N ASN B 286 155.743 205.952 163.255 1.00 88.39 N
ATOM 1649 CA ASN B 286 154.945 205.720 162.055 1.00 88.39 C
ATOM 1650 C ASN B 286 155.385 204.450 161.340 1.00 88.39 C
ATOM 1651 O ASN B 286 154.612 203.495 161.205 1.00 88.39 O
ATOM 1652 CB ASN B 286 155.044 206.927 161.123 1.00 88.39 C
ATOM 1653 CG ASN B 286 154.596 208.209 161.787 1.00 88.39 C
ATOM 1654 OD1 ASN B 286 153.647 208.215 162.571 1.00 88.39 O
ATOM 1655 ND2 ASN B 286 155.277 209.305 161.480 1.00 88.39 N
ATOM 1656 N ALA B 287 156.632 204.424 160.871 1.00 83.03 N
ATOM 1657 CA ALA B 287 157.142 203.249 160.176 1.00 83.03 C
ATOM 1658 C ALA B 287 157.570 202.163 161.157 1.00 83.03 C
ATOM 1659 O ALA B 287 157.274 200.981 160.953 1.00 83.03 O
ATOM 1660 CB ALA B 287 158.308 203.642 159.268 1.00 83.03 C
ATOM 1661 N SER B 288 158.257 202.546 162.229 1.00 74.07 N
ATOM 1662 CA SER B 288 158.813 201.594 163.178 1.00 74.07 C
ATOM 1663 C SER B 288 157.835 201.319 164.316 1.00 74.07 C
ATOM 1664 O SER B 288 157.085 202.196 164.747 1.00 74.07 O
ATOM 1665 CB SER B 288 160.132 202.115 163.738 1.00 74.07 C
ATOM 1666 OG SER B 288 160.930 202.657 162.703 1.00 74.07 O
ATOM 1667 N TYR B 289 157.863 200.081 164.801 1.00 66.18 N
ATOM 1668 CA TYR B 289 156.950 199.605 165.828 1.00 66.18 C
ATOM 1669 C TYR B 289 157.432 200.009 167.218 1.00 66.18 C
ATOM 1670 O TYR B 289 158.602 200.339 167.430 1.00 66.18 O
ATOM 1671 CB TYR B 289 156.824 198.087 165.735 1.00 66.18 C
ATOM 1672 CG TYR B 289 155.689 197.473 166.519 1.00 66.18 C

ATOM 1673 CD1 TYR B 289 155.827 197.183 167.866 1.00 66.18 C
ATOM 1674 CD2 TYR B 289 154.498 197.143 165.900 1.00 66.18 C
ATOM 1675 CE1 TYR B 289 154.801 196.610 168.580 1.00 66.18 C
ATOM 1676 CE2 TYR B 289 153.465 196.569 166.605 1.00 66.18 C
ATOM 1677 CZ TYR B 289 153.623 196.303 167.945 1.00 66.18 C
ATOM 1678 OH TYR B 289 152.595 195.728 168.654 1.00 66.18 O
ATOM 1679 N PHE B 290 156.504 199.990 168.172 1.00 65.86 N
ATOM 1680 CA PHE B 290 156.844 200.177 169.582 1.00 65.86 C
ATOM 1681 C PHE B 290 155.667 199.708 170.419 1.00 65.86 C
ATOM 1682 O PHE B 290 154.566 200.249 170.283 1.00 65.86 O
ATOM 1683 CB PHE B 290 157.161 201.631 169.878 1.00 65.86 C
ATOM 1684 CG PHE B 290 157.539 201.882 171.299 1.00 65.86 C
ATOM 1685 CD1 PHE B 290 158.854 201.780 171.703 1.00 65.86 C
ATOM 1686 CD2 PHE B 290 156.579 202.200 172.237 1.00 65.86 C
ATOM 1687 CE1 PHE B 290 159.208 202.006 173.011 1.00 65.86 C
ATOM 1688 CE2 PHE B 290 156.928 202.425 173.545 1.00 65.86 C
ATOM 1689 CZ PHE B 290 158.243 202.328 173.933 1.00 65.86 C
ATOM 1690 N GLY B 291 155.890 198.723 171.285 1.00 63.55 N
ATOM 1691 CA GLY B 291 154.781 198.143 172.016 1.00 63.55 C
ATOM 1692 C GLY B 291 155.014 197.703 173.448 1.00 63.55 C
ATOM 1693 O GLY B 291 154.390 196.731 173.883 1.00 63.55 O
ATOM 1694 N GLU B 292 155.885 198.375 174.204 1.00 65.85 N
ATOM 1695 CA GLU B 292 156.216 197.905 175.545 1.00 65.85 C
ATOM 1696 C GLU B 292 155.726 198.830 176.652 1.00 65.85 C
ATOM 1697 O GLU B 292 154.942 198.401 177.503 1.00 65.85 O
ATOM 1698 CB GLU B 292 157.729 197.694 175.668 1.00 65.85 C
ATOM 1699 CG GLU B 292 158.192 196.309 175.247 1.00 65.85 C
ATOM 1700 CD GLU B 292 157.748 195.229 176.211 1.00 65.85 C
ATOM 1701 OE1 GLU B 292 157.346 195.568 177.341 1.00 65.85 O
ATOM 1702 OE2 GLU B 292 157.797 194.039 175.837 1.00 65.85 O
ATOM 1703 N ASN B 293 156.149 200.085 176.676 1.00 71.25 N
ATOM 1704 CA ASN B 293 155.766 200.975 177.771 1.00 71.25 C
ATOM 1705 C ASN B 293 156.271 202.377 177.455 1.00 71.25 C
ATOM 1706 O ASN B 293 156.806 202.633 176.370 1.00 71.25 O

ATOM 1707 CB ASN B 293 156.291 200.463 179.112 1.00 71.25 C
ATOM 1708 CG ASN B 293 155.542 201.050 180.287 1.00 71.25 C
ATOM 1709 OD1 ASN B 293 155.610 202.252 180.541 1.00 71.25 O
ATOM 1710 ND2 ASN B 293 154.815 200.205 181.009 1.00 71.25 N
ATOM 1711 N ALA B 294 156.107 203.291 178.409 1.00 74.38 N
ATOM 1712 CA ALA B 294 156.423 204.698 178.211 1.00 74.38 C
ATOM 1713 C ALA B 294 157.721 205.122 178.879 1.00 74.38 C
ATOM 1714 O ALA B 294 158.595 205.689 178.217 1.00 74.38 O
ATOM 1715 CB ALA B 294 155.269 205.569 178.727 1.00 74.38 C
ATOM 1716 N ASP B 295 157.872 204.877 180.178 1.00 70.52 N
ATOM 1717 CA ASP B 295 159.055 205.295 180.922 1.00 70.52 C
ATOM 1718 C ASP B 295 159.892 204.098 181.363 1.00 70.52 C
ATOM 1719 O ASP B 295 160.445 204.072 182.462 1.00 70.52 O
ATOM 1720 CB ASP B 295 158.673 206.153 182.124 1.00 70.52 C
ATOM 1721 CG ASP B 295 159.833 206.994 182.631 1.00 70.52 C
ATOM 1722 OD1 ASP B 295 160.990 206.538 182.523 1.00 70.52 O
ATOM 1723 OD2 ASP B 295 159.593 208.113 183.132 1.00 70.52 O
ATOM 1724 N LYS B 296 159.981 203.089 180.504 1.00 63.10 N
ATOM 1725 CA LYS B 296 160.923 201.996 180.693 1.00 63.10 C
ATOM 1726 C LYS B 296 161.863 201.987 179.498 1.00 63.10 C
ATOM 1727 O LYS B 296 162.151 200.932 178.928 1.00 63.10 O
ATOM 1728 CB LYS B 296 160.198 200.658 180.832 1.00 63.10 C
ATOM 1729 CG LYS B 296 159.196 200.605 181.970 1.00 63.10 C
ATOM 1730 CD LYS B 296 159.835 201.005 183.286 1.00 63.10 C
ATOM 1731 CE LYS B 296 158.936 200.663 184.459 1.00 63.10 C
ATOM 1732 NZ LYS B 296 158.603 199.215 184.480 1.00 63.10 N
ATOM 1733 N PHE B 297 162.330 203.169 179.110 1.00 57.76 N
ATOM 1734 CA PHE B 297 163.019 203.351 177.843 1.00 57.76 C
ATOM 1735 C PHE B 297 163.904 204.583 177.957 1.00 57.76 C
ATOM 1736 O PHE B 297 163.497 205.587 178.543 1.00 57.76 O
ATOM 1737 CB PHE B 297 162.003 203.503 176.707 1.00 57.76 C
ATOM 1738 CG PHE B 297 162.615 203.563 175.346 1.00 57.76 C
ATOM 1739 CD1 PHE B 297 163.027 202.410 174.710 1.00 57.76 C
ATOM 1740 CD2 PHE B 297 162.785 204.774 174.704 1.00 57.76 C

ATOM 1741 CE1 PHE B 297 163.595 202.461 173.458 1.00 57.76 C
ATOM 1742 CE2 PHE B 297 163.352 204.830 173.451 1.00 57.76 C
ATOM 1743 CZ PHE B 297 163.755 203.670 172.827 1.00 57.76 C
ATOM 1744 N PHE B 298 165.112 204.504 177.405 1.00 57.00 N
ATOM 1745 CA PHE B 298 166.084 205.581 177.561 1.00 57.00 C
ATOM 1746 C PHE B 298 167.039 205.583 176.381 1.00 57.00 C
ATOM 1747 O PHE B 298 167.712 204.580 176.124 1.00 57.00 O
ATOM 1748 CB PHE B 298 166.858 205.432 178.869 1.00 57.00 C
ATOM 1749 CG PHE B 298 166.070 205.808 180.082 1.00 57.00 C
ATOM 1750 CD1 PHE B 298 165.995 207.126 180.494 1.00 57.00 C
ATOM 1751 CD2 PHE B 298 165.405 204.844 180.814 1.00 57.00 C
ATOM 1752 CE1 PHE B 298 165.271 207.473 181.611 1.00 57.00 C
ATOM 1753 CE2 PHE B 298 164.680 205.184 181.932 1.00 57.00 C
ATOM 1754 CZ PHE B 298 164.612 206.500 182.332 1.00 57.00 C
ATOM 1755 N ILE B 299 167.105 206.708 175.674 1.00 56.82 N
ATOM 1756 CA ILE B 299 167.997 206.884 174.535 1.00 56.82 C
ATOM 1757 C ILE B 299 169.090 207.864 174.937 1.00 56.82 C
ATOM 1758 O ILE B 299 168.801 209.003 175.322 1.00 56.82 O
ATOM 1759 CB ILE B 299 167.241 207.380 173.294 1.00 56.82 C
ATOM 1760 CG1 ILE B 299 166.089 206.437 172.951 1.00 56.82 C
ATOM 1761 CG2 ILE B 299 168.185 207.493 172.118 1.00 56.82 C
ATOM 1762 CD1 ILE B 299 166.536 205.118 172.370 1.00 56.82 C
ATOM 1763 N PHE B 300 170.342 207.422 174.848 1.00 58.87 N
ATOM 1764 CA PHE B 300 171.488 208.231 175.211 1.00 58.87 C
ATOM 1765 C PHE B 300 172.356 208.484 173.987 1.00 58.87 C
ATOM 1766 O PHE B 300 172.770 207.527 173.319 1.00 58.87 O
ATOM 1767 CB PHE B 300 172.317 207.539 176.301 1.00 58.87 C
ATOM 1768 CG PHE B 300 171.648 207.509 177.644 1.00 58.87 C
ATOM 1769 CD1 PHE B 300 171.809 208.554 178.533 1.00 58.87 C
ATOM 1770 CD2 PHE B 300 170.862 206.435 178.017 1.00 58.87 C
ATOM 1771 CE1 PHE B 300 171.197 208.530 179.766 1.00 58.87 C
ATOM 1772 CE2 PHE B 300 170.249 206.407 179.249 1.00 58.87 C
ATOM 1773 CZ PHE B 300 170.416 207.455 180.124 1.00 58.87 C
ATOM 1774 N PRO B 301 172.648 209.741 173.654 1.00 64.73 N

ATOM 1775 CA PRO B 301 173.516 210.032 172.509 1.00 64.73 C
ATOM 1776 C PRO B 301 174.976 210.176 172.910 1.00 64.73 C
ATOM 1777 O PRO B 301 175.309 210.710 173.969 1.00 64.73 O
ATOM 1778 CB PRO B 301 172.955 211.367 172.006 1.00 64.73 C
ATOM 1779 CG PRO B 301 172.517 212.050 173.262 1.00 64.73 C
ATOM 1780 CD PRO B 301 172.075 210.970 174.229 1.00 64.73 C
ATOM 1781 N ASN B 302 175.859 209.695 172.039 1.00 68.53 N
ATOM 1782 CA ASN B 302 177.302 209.762 172.265 1.00 68.53 C
ATOM 1783 C ASN B 302 177.677 209.094 173.591 1.00 68.53 C
ATOM 1784 O ASN B 302 178.188 209.716 174.521 1.00 68.53 O
ATOM 1785 CB ASN B 302 177.787 211.212 172.226 1.00 68.53 C
ATOM 1786 CG ASN B 302 178.377 211.591 170.888 1.00 68.53 C
ATOM 1787 OD1 ASN B 302 178.635 210.731 170.047 1.00 68.53 O
ATOM 1788 ND2 ASN B 302 178.600 212.885 170.682 1.00 68.53 N
ATOM 1789 N TYR B 303 177.413 207.793 173.642 1.00 64.36 N
ATOM 1790 CA TYR B 303 177.585 207.006 174.853 1.00 64.36 C
ATOM 1791 C TYR B 303 178.854 206.171 174.766 1.00 64.36 C
ATOM 1792 O TYR B 303 179.147 205.575 173.726 1.00 64.36 O
ATOM 1793 CB TYR B 303 176.373 206.104 175.074 1.00 64.36 C
ATOM 1794 CG TYR B 303 176.277 205.523 176.460 1.00 64.36 C
ATOM 1795 CD1 TYR B 303 176.208 206.348 177.570 1.00 64.36 C
ATOM 1796 CD2 TYR B 303 176.228 204.154 176.658 1.00 64.36 C
ATOM 1797 CE1 TYR B 303 176.112 205.826 178.837 1.00 64.36 C
ATOM 1798 CE2 TYR B 303 176.130 203.623 177.923 1.00 64.36 C
ATOM 1799 CZ TYR B 303 176.072 204.463 179.008 1.00 64.36 C
ATOM 1800 OH TYR B 303 175.974 203.941 180.274 1.00 64.36 O
ATOM 1801 N THR B 304 179.607 206.138 175.861 1.00 61.34 N
ATOM 1802 CA THR B 304 180.866 205.413 175.921 1.00 61.34 C
ATOM 1803 C THR B 304 180.645 203.984 176.403 1.00 61.34 C
ATOM 1804 O THR B 304 179.673 203.676 177.093 1.00 61.34 O
ATOM 1805 CB THR B 304 181.852 206.120 176.851 1.00 61.34 C
ATOM 1806 OG1 THR B 304 181.883 207.517 176.542 1.00 61.34 O
ATOM 1807 CG2 THR B 304 183.241 205.544 176.686 1.00 61.34 C
ATOM 1808 N ILE B 305 181.579 203.108 176.035 1.00 61.07 N

ATOM 1809 CA ILE B 305 181.554 201.712 176.455 1.00 61.07 C
ATOM 1810 C ILE B 305 182.978 201.190 176.389 1.00 61.07 C
ATOM 1811 O ILE B 305 183.798 201.686 175.615 1.00 61.07 O
ATOM 1812 CB ILE B 305 180.594 200.867 175.579 1.00 61.07 C
ATOM 1813 CG1 ILE B 305 179.141 201.272 175.813 1.00 61.07 C
ATOM 1814 CG2 ILE B 305 180.780 199.390 175.847 1.00 61.07 C
ATOM 1815 CD1 ILE B 305 178.177 200.636 174.850 1.00 61.07 C
ATOM 1816 N VAL B 306 183.273 200.189 177.207 1.00 64.82 N
ATOM 1817 CA VAL B 306 184.588 199.571 177.204 1.00 64.82 C
ATOM 1818 C VAL B 306 184.609 198.453 176.170 1.00 64.82 C
ATOM 1819 O VAL B 306 183.571 197.943 175.744 1.00 64.82 O
ATOM 1820 CB VAL B 306 184.973 199.041 178.595 1.00 64.82 C
ATOM 1821 CG1 VAL B 306 185.195 200.194 179.548 1.00 64.82 C
ATOM 1822 CG2 VAL B 306 183.898 198.117 179.115 1.00 64.82 C
ATOM 1823 N SER B 307 185.817 198.066 175.765 1.00 69.98 N
ATOM 1824 CA SER B 307 185.964 197.073 174.707 1.00 69.98 C
ATOM 1825 C SER B 307 185.875 195.653 175.248 1.00 69.98 C
ATOM 1826 O SER B 307 185.314 194.770 174.590 1.00 69.98 O
ATOM 1827 CB SER B 307 187.293 197.279 173.983 1.00 69.98 C
ATOM 1828 OG SER B 307 187.340 198.549 173.359 1.00 69.98 O
ATOM 1829 N ASP B 308 186.418 195.415 176.439 1.00 70.06 N
ATOM 1830 CA ASP B 308 186.525 194.077 177.007 1.00 70.06 C
ATOM 1831 C ASP B 308 186.080 194.115 178.460 1.00 70.06 C
ATOM 1832 O ASP B 308 186.698 194.801 179.279 1.00 70.06 O
ATOM 1833 CB ASP B 308 187.962 193.560 176.904 1.00 70.06 C
ATOM 1834 CG ASP B 308 188.029 192.064 176.709 1.00 70.06 C
ATOM 1835 OD1 ASP B 308 186.961 191.420 176.660 1.00 70.06 O
ATOM 1836 OD2 ASP B 308 189.152 191.532 176.604 1.00 70.06 O
ATOM 1837 N PHE B 309 185.016 193.376 178.782 1.00 59.40 N
ATOM 1838 CA PHE B 309 184.614 193.237 180.176 1.00 59.40 C
ATOM 1839 C PHE B 309 185.455 192.155 180.837 1.00 59.40 C
ATOM 1840 O PHE B 309 184.926 191.278 181.523 1.00 59.40 O
ATOM 1841 CB PHE B 309 183.133 192.871 180.291 1.00 59.40 C
ATOM 1842 CG PHE B 309 182.200 193.893 179.716 1.00 59.40 C

ATOM 1843 CD1 PHE B 309 182.188 195.187 180.190 1.00 59.40 C
ATOM 1844 CD2 PHE B 309 181.316 193.548 178.711 1.00 59.40 C
ATOM 1845 CE1 PHE B 309 181.323 196.118 179.665 1.00 59.40 C
ATOM 1846 CE2 PHE B 309 180.451 194.475 178.185 1.00 59.40 C
ATOM 1847 CZ PHE B 309 180.454 195.760 178.662 1.00 59.40 C
ATOM 1848 N GLY B 310 186.765 192.217 180.641 1.00 68.78 N
ATOM 1849 CA GLY B 310 187.681 191.248 181.205 1.00 68.78 C
ATOM 1850 C GLY B 310 188.708 191.917 182.087 1.00 68.78 C
ATOM 1851 O GLY B 310 188.390 192.415 183.170 1.00 68.78 O
ATOM 1852 N ARG B 311 189.950 191.931 181.619 1.00 81.62 N
ATOM 1853 CA ARG B 311 191.049 192.615 182.280 1.00 81.62 C
ATOM 1854 C ARG B 311 190.620 194.015 182.698 1.00 81.62 C
ATOM 1855 O ARG B 311 189.743 194.614 182.064 1.00 81.62 O
ATOM 1856 CB ARG B 311 192.262 192.676 181.354 1.00 81.62 C
ATOM 1857 CG ARG B 311 191.906 193.002 179.917 1.00 81.62 C
ATOM 1858 CD ARG B 311 193.015 192.599 178.965 1.00 81.62 C
ATOM 1859 NE ARG B 311 192.771 193.088 177.613 1.00 81.62 N
ATOM 1860 CZ ARG B 311 193.170 194.273 177.167 1.00 81.62 C
ATOM 1861 NH1 ARG B 311 193.835 195.095 177.967 1.00 81.62 N
ATOM 1862 NH2 ARG B 311 192.905 194.638 175.921 1.00 81.62 N
ATOM 1863 N PRO B 312 191.204 194.562 183.759 1.00 83.32 N
ATOM 1864 CA PRO B 312 190.707 195.830 184.309 1.00 83.32 C
ATOM 1865 C PRO B 312 190.704 196.977 183.313 1.00 83.32 C
ATOM 1866 O PRO B 312 189.658 197.583 183.067 1.00 83.32 O
ATOM 1867 CB PRO B 312 191.674 196.110 185.468 1.00 83.32 C
ATOM 1868 CG PRO B 312 192.291 194.791 185.787 1.00 83.32 C
ATOM 1869 CD PRO B 312 192.379 194.062 184.489 1.00 83.32 C
ATOM 1870 N ASN B 313 191.860 197.286 182.732 1.00 86.86 N
ATOM 1871 CA ASN B 313 192.023 198.478 181.905 1.00 86.86 C
ATOM 1872 C ASN B 313 191.975 198.083 180.433 1.00 86.86 C
ATOM 1873 O ASN B 313 192.907 197.453 179.920 1.00 86.86 O
ATOM 1874 CB ASN B 313 193.331 199.189 182.241 1.00 86.86 C
ATOM 1875 CG ASN B 313 193.153 200.684 182.400 1.00 86.86 C
ATOM 1876 OD1 ASN B 313 192.461 201.325 181.612 1.00 86.86 O

ATOM 1877 ND2 ASN B 313 193.777 201.246 183.427 1.00 86.86 N
ATOM 1878 N SER B 314 190.892 198.456 179.757 1.00 80.87 N
ATOM 1879 CA SER B 314 190.695 198.203 178.339 1.00 80.87 C
ATOM 1880 C SER B 314 190.715 199.521 177.570 1.00 80.87 C
ATOM 1881 O SER B 314 190.983 200.591 178.128 1.00 80.87 O
ATOM 1882 CB SER B 314 189.391 197.437 178.117 1.00 80.87 C
ATOM 1883 OG SER B 314 189.391 196.210 178.820 1.00 80.87 O
ATOM 1884 N ALA B 315 190.430 199.443 176.273 1.00 73.95 N
ATOM 1885 CA ALA B 315 190.376 200.606 175.400 1.00 73.95 C
ATOM 1886 C ALA B 315 188.923 200.937 175.091 1.00 73.95 C
ATOM 1887 O ALA B 315 188.169 200.071 174.635 1.00 73.95 O
ATOM 1888 CB ALA B 315 191.150 200.357 174.106 1.00 73.95 C
ATOM 1889 N LEU B 316 188.539 202.187 175.333 1.00 71.05 N
ATOM 1890 CA LEU B 316 187.155 202.605 175.184 1.00 71.05 C
ATOM 1891 C LEU B 316 186.809 202.842 173.715 1.00 71.05 C
ATOM 1892 O LEU B 316 187.661 202.794 172.826 1.00 71.05 O
ATOM 1893 CB LEU B 316 186.888 203.867 176.001 1.00 71.05 C
ATOM 1894 CG LEU B 316 186.372 203.655 177.425 1.00 71.05 C
ATOM 1895 CD1 LEU B 316 187.343 202.810 178.224 1.00 71.05 C
ATOM 1896 CD2 LEU B 316 186.140 204.987 178.108 1.00 71.05 C
ATOM 1897 N GLU B 317 185.528 203.103 173.470 1.00 71.76 N
ATOM 1898 CA GLU B 317 185.024 203.379 172.134 1.00 71.76 C
ATOM 1899 C GLU B 317 183.643 204.000 172.265 1.00 71.76 C
ATOM 1900 O GLU B 317 182.920 203.730 173.226 1.00 71.76 O
ATOM 1901 CB GLU B 317 184.966 202.111 171.280 1.00 71.76 C
ATOM 1902 CG GLU B 317 183.683 201.326 171.443 1.00 71.76 C
ATOM 1903 CD GLU B 317 183.739 199.980 170.759 1.00 71.76 C
ATOM 1904 OE1 GLU B 317 184.858 199.481 170.527 1.00 71.76 O
ATOM 1905 OE2 GLU B 317 182.666 199.420 170.455 1.00 71.76 O
ATOM 1906 N THR B 318 183.283 204.828 171.292 1.00 67.17 N
ATOM 1907 CA THR B 318 182.051 205.598 171.349 1.00 67.17 C
ATOM 1908 C THR B 318 180.976 204.978 170.464 1.00 67.17 C
ATOM 1909 O THR B 318 181.253 204.158 169.587 1.00 67.17 O
ATOM 1910 CB THR B 318 182.304 207.047 170.927 1.00 67.17 C

ATOM 1911 OG1 THR B 318 183.509 207.519 171.540 1.00 67.17 O
ATOM 1912 CG2 THR B 318 181.151 207.935 171.357 1.00 67.17 C
ATOM 1913 N HIS B 319 179.733 205.383 170.713 1.00 64.28 N
ATOM 1914 CA HIS B 319 178.587 204.928 169.941 1.00 64.28 C
ATOM 1915 C HIS B 319 177.719 206.129 169.596 1.00 64.28 C
ATOM 1916 O HIS B 319 177.885 207.220 170.146 1.00 64.28 O
ATOM 1917 CB HIS B 319 177.769 203.884 170.706 1.00 64.28 C
ATOM 1918 CG HIS B 319 178.359 202.511 170.678 1.00 64.28 C
ATOM 1919 ND1 HIS B 319 177.723 201.441 170.088 1.00 64.28 N
ATOM 1920 CD2 HIS B 319 179.523 202.031 171.174 1.00 64.28 C
ATOM 1921 CE1 HIS B 319 178.472 200.360 170.219 1.00 64.28 C
ATOM 1922 NE2 HIS B 319 179.570 200.692 170.874 1.00 64.28 N
ATOM 1923 N ARG B 320 176.779 205.920 168.676 1.00 64.82 N
ATOM 1924 CA ARG B 320 175.894 206.995 168.247 1.00 64.82 C
ATOM 1925 C ARG B 320 174.600 207.023 169.053 1.00 64.82 C
ATOM 1926 O ARG B 320 174.231 208.065 169.603 1.00 64.82 O
ATOM 1927 CB ARG B 320 175.592 206.860 166.753 1.00 64.82 C
ATOM 1928 CG ARG B 320 175.169 208.160 166.086 1.00 64.82 C
ATOM 1929 CD ARG B 320 174.939 207.973 164.594 1.00 64.82 C
ATOM 1930 NE ARG B 320 173.761 207.158 164.315 1.00 64.82 N
ATOM 1931 CZ ARG B 320 172.532 207.644 164.175 1.00 64.82 C
ATOM 1932 NH1 ARG B 320 172.317 208.946 164.287 1.00 64.82 N
ATOM 1933 NH2 ARG B 320 171.519 206.826 163.921 1.00 64.82 N
ATOM 1934 N LEU B 321 173.900 205.896 169.130 1.00 59.61 N
ATOM 1935 CA LEU B 321 172.706 205.777 169.950 1.00 59.61 C
ATOM 1936 C LEU B 321 172.740 204.463 170.717 1.00 59.61 C
ATOM 1937 O LEU B 321 173.233 203.449 170.217 1.00 59.61 O
ATOM 1938 CB LEU B 321 171.429 205.848 169.110 1.00 59.61 C
ATOM 1939 CG LEU B 321 171.005 207.231 168.628 1.00 59.61 C
ATOM 1940 CD1 LEU B 321 169.598 207.176 168.069 1.00 59.61 C
ATOM 1941 CD2 LEU B 321 171.096 208.237 169.753 1.00 59.61 C
ATOM 1942 N VAL B 322 172.205 204.489 171.936 1.00 50.89 N
ATOM 1943 CA VAL B 322 172.121 203.307 172.783 1.00 50.89 C
ATOM 1944 C VAL B 322 170.797 203.343 173.532 1.00 50.89 C

ATOM 1945 O VAL B 322 170.410 204.380 174.077 1.00 50.89 O
ATOM 1946 CB VAL B 322 173.301 203.227 173.768 1.00 50.89 C
ATOM 1947 CG1 VAL B 322 173.357 201.859 174.400 1.00 50.89 C
ATOM 1948 CG2 VAL B 322 174.598 203.535 173.062 1.00 50.89 C
ATOM 1949 N ALA B 323 170.106 202.207 173.562 1.00 48.37 N
ATOM 1950 CA ALA B 323 168.798 202.099 174.189 1.00 48.37 C
ATOM 1951 C ALA B 323 168.890 201.292 175.479 1.00 48.37 C
ATOM 1952 O ALA B 323 169.775 200.450 175.642 1.00 48.37 O
ATOM 1953 CB ALA B 323 167.788 201.444 173.244 1.00 48.37 C
ATOM 1954 N PHE B 324 167.960 201.556 176.395 1.00 45.08 N
ATOM 1955 CA PHE B 324 167.924 200.881 177.687 1.00 45.08 C
ATOM 1956 C PHE B 324 166.474 200.636 178.068 1.00 45.08 C
ATOM 1957 O PHE B 324 165.735 201.588 178.331 1.00 45.08 O
ATOM 1958 CB PHE B 324 168.620 201.713 178.768 1.00 45.08 C
ATOM 1959 CG PHE B 324 170.119 201.703 178.681 1.00 45.08 C
ATOM 1960 CD1 PHE B 324 170.807 200.540 178.407 1.00 45.08 C
ATOM 1961 CD2 PHE B 324 170.841 202.862 178.892 1.00 45.08 C
ATOM 1962 CE1 PHE B 324 172.182 200.537 178.335 1.00 45.08 C
ATOM 1963 CE2 PHE B 324 172.213 202.860 178.820 1.00 45.08 C
ATOM 1964 CZ PHE B 324 172.883 201.697 178.541 1.00 45.08 C
ATOM 1965 N LEU B 325 166.071 199.371 178.105 1.00 45.08 N
ATOM 1966 CA LEU B 325 164.714 198.976 178.480 1.00 45.08 C
ATOM 1967 C LEU B 325 164.794 198.163 179.765 1.00 45.08 C
ATOM 1968 O LEU B 325 165.210 197.002 179.744 1.00 45.08 O
ATOM 1969 CB LEU B 325 164.050 198.179 177.364 1.00 45.08 C
ATOM 1970 CG LEU B 325 162.599 197.773 177.614 1.00 45.08 C
ATOM 1971 CD1 LEU B 325 161.843 197.637 176.315 1.00 45.08 C
ATOM 1972 CD2 LEU B 325 162.558 196.470 178.365 1.00 45.08 C
ATOM 1973 N GLU B 326 164.380 198.758 180.881 1.00 52.92 N
ATOM 1974 CA GLU B 326 164.523 198.131 182.192 1.00 52.92 C
ATOM 1975 C GLU B 326 163.246 197.380 182.542 1.00 52.92 C
ATOM 1976 O GLU B 326 162.210 197.992 182.811 1.00 52.92 O
ATOM 1977 CB GLU B 326 164.856 199.173 183.256 1.00 52.92 C
ATOM 1978 CG GLU B 326 163.875 200.316 183.343 1.00 52.92 C

ATOM 1979 CD GLU B 326 164.092 201.163 184.578 1.00 52.92 C
ATOM 1980 OE1 GLU B 326 164.348 200.587 185.655 1.00 52.92 O
ATOM 1981 OE2 GLU B 326 164.013 202.405 184.472 1.00 52.92 O
ATOM 1982 N ARG B 327 163.328 196.058 182.551 1.00 45.14 N
ATOM 1983 CA ARG B 327 162.206 195.199 182.898 1.00 45.14 C
ATOM 1984 C ARG B 327 162.235 194.920 184.402 1.00 45.14 C
ATOM 1985 O ARG B 327 162.949 195.586 185.156 1.00 45.14 O
ATOM 1986 CB ARG B 327 162.250 193.927 182.050 1.00 45.14 C
ATOM 1987 CG ARG B 327 162.646 194.175 180.613 1.00 45.14 C
ATOM 1988 CD ARG B 327 163.368 192.983 180.031 1.00 45.14 C
ATOM 1989 NE ARG B 327 162.435 191.949 179.603 1.00 45.14 N
ATOM 1990 CZ ARG B 327 162.802 190.742 179.191 1.00 45.14 C
ATOM 1991 NH1 ARG B 327 164.087 190.417 179.152 1.00 45.14 N
ATOM 1992 NH2 ARG B 327 161.887 189.859 178.820 1.00 45.14 N
ATOM 1993 N ALA B 328 161.450 193.945 184.858 1.00 50.67 N
ATOM 1994 CA ALA B 328 161.319 193.699 186.290 1.00 50.67 C
ATOM 1995 C ALA B 328 162.620 193.186 186.895 1.00 50.67 C
ATOM 1996 O ALA B 328 163.046 193.654 187.956 1.00 50.67 O
ATOM 1997 CB ALA B 328 160.185 192.709 186.547 1.00 50.67 C
ATOM 1998 N ASP B 329 163.266 192.221 186.239 1.00 51.23 N
ATOM 1999 CA ASP B 329 164.416 191.534 186.817 1.00 51.23 C
ATOM 2000 C ASP B 329 165.625 191.551 185.889 1.00 51.23 C
ATOM 2001 O ASP B 329 166.419 190.609 185.885 1.00 51.23 O
ATOM 2002 CB ASP B 329 164.054 190.094 187.171 1.00 51.23 C
ATOM 2003 CG ASP B 329 163.717 189.266 185.950 1.00 51.23 C
ATOM 2004 OD1 ASP B 329 164.650 188.849 185.236 1.00 51.23 O
ATOM 2005 OD2 ASP B 329 162.518 189.035 185.699 1.00 51.23 O
ATOM 2006 N SER B 330 165.779 192.604 185.091 1.00 45.18 N
ATOM 2007 CA SER B 330 166.942 192.713 184.222 1.00 45.18 C
ATOM 2008 C SER B 330 166.944 194.042 183.481 1.00 45.18 C
ATOM 2009 O SER B 330 166.033 194.854 183.652 1.00 45.18 O
ATOM 2010 CB SER B 330 166.985 191.548 183.234 1.00 45.18 C
ATOM 2011 OG SER B 330 165.835 191.535 182.411 1.00 45.18 O
ATOM 2012 N VAL B 331 167.971 194.278 182.670 1.00 39.54 N

ATOM 2013 CA VAL B 331 168.033 195.466 181.831 1.00 39.54 C
ATOM 2014 C VAL B 331 168.701 195.105 180.513 1.00 39.54 C
ATOM 2015 O VAL B 331 169.897 194.798 180.478 1.00 39.54 O
ATOM 2016 CB VAL B 331 168.784 196.606 182.540 1.00 39.54 C
ATOM 2017 CG1 VAL B 331 169.155 197.680 181.554 1.00 39.54 C
ATOM 2018 CG2 VAL B 331 167.935 197.184 183.642 1.00 39.54 C
ATOM 2019 N ILE B 332 167.942 195.133 179.422 1.00 36.52 N
ATOM 2020 CA ILE B 332 168.491 194.861 178.103 1.00 36.52 C
ATOM 2021 C ILE B 332 169.020 196.161 177.514 1.00 36.52 C
ATOM 2022 O ILE B 332 168.647 197.257 177.932 1.00 36.52 O
ATOM 2023 CB ILE B 332 167.450 194.210 177.174 1.00 36.52 C
ATOM 2024 CG1 ILE B 332 166.988 192.879 177.742 1.00 36.52 C
ATOM 2025 CG2 ILE B 332 168.035 193.955 175.813 1.00 36.52 C
ATOM 2026 CD1 ILE B 332 166.238 192.041 176.743 1.00 36.52 C
ATOM 2027 N SER B 333 169.902 196.043 176.527 1.00 37.04 N
ATOM 2028 CA SER B 333 170.523 197.226 175.939 1.00 37.04 C
ATOM 2029 C SER B 333 171.104 196.872 174.582 1.00 37.04 C
ATOM 2030 O SER B 333 171.867 195.911 174.469 1.00 37.04 O
ATOM 2031 CB SER B 333 171.604 197.773 176.854 1.00 37.04 C
ATOM 2032 OG SER B 333 172.467 198.638 176.146 1.00 37.04 O
ATOM 2033 N TRP B 334 170.742 197.641 173.563 1.00 44.72 N
ATOM 2034 CA TRP B 334 171.324 197.554 172.234 1.00 44.72 C
ATOM 2035 C TRP B 334 171.633 198.961 171.740 1.00 44.72 C
ATOM 2036 O TRP B 334 171.265 199.958 172.366 1.00 44.72 O
ATOM 2037 CB TRP B 334 170.382 196.835 171.263 1.00 44.72 C
ATOM 2038 CG TRP B 334 169.078 197.537 171.065 1.00 44.72 C
ATOM 2039 CD1 TRP B 334 168.789 198.463 170.114 1.00 44.72 C
ATOM 2040 CD2 TRP B 334 167.883 197.369 171.835 1.00 44.72 C
ATOM 2041 NE1 TRP B 334 167.489 198.886 170.242 1.00 44.72 N
ATOM 2042 CE2 TRP B 334 166.913 198.227 171.293 1.00 44.72 C
ATOM 2043 CE3 TRP B 334 167.540 196.576 172.929 1.00 44.72 C
ATOM 2044 CZ2 TRP B 334 165.629 198.316 171.806 1.00 44.72 C
ATOM 2045 CZ3 TRP B 334 166.264 196.666 173.436 1.00 44.72 C
ATOM 2046 CH2 TRP B 334 165.324 197.528 172.877 1.00 44.72 C

ATOM 2047 N ASP B 335 172.318 199.046 170.606 1.00 53.54 N
ATOM 2048 CA ASP B 335 172.613 200.324 169.973 1.00 53.54 C
ATOM 2049 C ASP B 335 171.783 200.453 168.705 1.00 53.54 C
ATOM 2050 O ASP B 335 171.751 199.531 167.884 1.00 53.54 O
ATOM 2051 CB ASP B 335 174.101 200.462 169.660 1.00 53.54 C
ATOM 2052 CG ASP B 335 174.679 199.220 169.042 1.00 53.54 C
ATOM 2053 OD1 ASP B 335 173.914 198.259 168.827 1.00 53.54 O
ATOM 2054 OD2 ASP B 335 175.898 199.201 168.774 1.00 53.54 O
ATOM 2055 N ILE B 336 171.115 201.594 168.555 1.00 58.48 N
ATOM 2056 CA ILE B 336 170.157 201.815 167.477 1.00 58.48 C
ATOM 2057 C ILE B 336 170.793 201.488 166.135 1.00 58.48 C
ATOM 2058 O ILE B 336 171.839 202.040 165.778 1.00 58.48 O
ATOM 2059 CB ILE B 336 169.634 203.259 167.495 1.00 58.48 C
ATOM 2060 CG1 ILE B 336 168.921 203.549 168.812 1.00 58.48 C
ATOM 2061 CG2 ILE B 336 168.695 203.480 166.339 1.00 58.48 C
ATOM 2062 CD1 ILE B 336 167.660 202.748 169.005 1.00 58.48 C
ATOM 2063 N GLN B 337 170.160 200.596 165.380 1.00 62.06 N
ATOM 2064 CA GLN B 337 170.680 200.165 164.090 1.00 62.06 C
ATOM 2065 C GLN B 337 170.354 201.216 163.032 1.00 62.06 C
ATOM 2066 O GLN B 337 169.917 202.327 163.338 1.00 62.06 O
ATOM 2067 CB GLN B 337 170.120 198.794 163.732 1.00 62.06 C
ATOM 2068 CG GLN B 337 170.311 197.761 164.818 1.00 62.06 C
ATOM 2069 CD GLN B 337 171.745 197.294 164.916 1.00 62.06 C
ATOM 2070 OE1 GLN B 337 172.190 196.830 165.963 1.00 62.06 O
ATOM 2071 NE2 GLN B 337 172.480 197.412 163.818 1.00 62.06 N
ATOM 2072 N ASN B 338 170.568 200.874 161.765 1.00 81.47 N
ATOM 2073 CA ASN B 338 170.333 201.795 160.664 1.00 81.47 C
ATOM 2074 C ASN B 338 169.485 201.122 159.593 1.00 81.47 C
ATOM 2075 O ASN B 338 169.284 199.905 159.600 1.00 81.47 O
ATOM 2076 CB ASN B 338 171.650 202.292 160.064 1.00 81.47 C
ATOM 2077 CG ASN B 338 172.346 203.291 160.957 1.00 81.47 C
ATOM 2078 OD1 ASN B 338 173.571 203.288 161.074 1.00 81.47 O
ATOM 2079 ND2 ASN B 338 171.568 204.155 161.597 1.00 81.47 N
ATOM 2080 N GLU B 339 168.994 201.938 158.663 1.00 88.17 N

ATOM 2081 CA GLU B 339 168.011 201.473 157.694 1.00 88.17 C
ATOM 2082 C GLU B 339 168.630 200.519 156.680 1.00 88.17 C
ATOM 2083 O GLU B 339 169.757 200.716 156.219 1.00 88.17 O
ATOM 2084 CB GLU B 339 167.384 202.665 156.975 1.00 88.17 C
ATOM 2085 CG GLU B 339 166.273 203.344 157.755 1.00 88.17 C
ATOM 2086 CD GLU B 339 164.995 202.531 157.773 1.00 88.17 C
ATOM 2087 OE1 GLU B 339 163.908 203.131 157.913 1.00 88.17 O
ATOM 2088 OE2 GLU B 339 165.076 201.292 157.647 1.00 88.17 O
ATOM 2089 N LYS B 340 167.877 199.479 156.330 1.00 89.84 N
ATOM 2090 CA LYS B 340 168.277 198.568 155.270 1.00 89.84 C
ATOM 2091 C LYS B 340 168.248 199.292 153.923 1.00 89.84 C
ATOM 2092 O LYS B 340 167.876 200.464 153.824 1.00 89.84 O
ATOM 2093 CB LYS B 340 167.367 197.343 155.256 1.00 89.84 C
ATOM 2094 CG LYS B 340 167.359 196.563 156.554 1.00 89.84 C
ATOM 2095 CD LYS B 340 168.665 195.825 156.770 1.00 89.84 C
ATOM 2096 CE LYS B 340 168.673 194.500 156.040 1.00 89.84 C
ATOM 2097 NZ LYS B 340 169.890 193.710 156.362 1.00 89.84 N
ATOM 2098 N ASN B 341 168.656 198.587 152.867 1.00112.01 N
ATOM 2099 CA ASN B 341 168.778 199.180 151.539 1.00112.01 C
ATOM 2100 C ASN B 341 167.845 198.555 150.508 1.00112.01 C
ATOM 2101 O ASN B 341 167.057 199.266 149.877 1.00112.01 O
ATOM 2102 CB ASN B 341 170.234 199.084 151.071 1.00112.01 C
ATOM 2103 CG ASN B 341 171.202 199.658 152.081 1.00112.01 C
ATOM 2104 OD1 ASN B 341 171.661 198.961 152.986 1.00112.01 O
ATOM 2105 ND2 ASN B 341 171.505 200.944 151.943 1.00112.01 N
ATOM 2106 N VAL B 342 167.918 197.240 150.305 1.00113.92 N
ATOM 2107 CA VAL B 342 167.132 196.577 149.269 1.00113.92 C
ATOM 2108 C VAL B 342 166.926 195.125 149.668 1.00113.92 C
ATOM 2109 O VAL B 342 167.827 194.481 150.212 1.00113.92 O
ATOM 2110 CB VAL B 342 167.821 196.674 147.887 1.00113.92 C
ATOM 2111 CG1 VAL B 342 169.242 196.138 147.965 1.00113.92 C
ATOM 2112 CG2 VAL B 342 167.023 195.920 146.836 1.00113.92 C
ATOM 2113 N THR B 343 165.735 194.601 149.381 1.00113.63 N
ATOM 2114 CA THR B 343 165.379 193.251 149.810 1.00113.63 C

ATOM 2115 C THR B 343 164.608 192.499 148.725 1.00113.63 C
ATOM 2116 O THR B 343 163.622 191.811 149.011 1.00113.63 O
ATOM 2117 CB THR B 343 164.559 193.294 151.101 1.00113.63 C
ATOM 2118 OG1 THR B 343 165.067 194.323 151.964 1.00113.63 O
ATOM 2119 CG2 THR B 343 164.625 191.964 151.819 1.00113.63 C
ATOM 2120 N CYS B 344 165.027 192.611 147.466 1.00112.61 N
ATOM 2121 CA CYS B 344 164.319 191.877 146.424 1.00112.61 C
ATOM 2122 C CYS B 344 164.443 190.377 146.674 1.00112.61 C
ATOM 2123 O CYS B 344 165.467 189.900 147.165 1.00112.61 O
ATOM 2124 CB CYS B 344 164.845 192.246 145.031 1.00112.61 C
ATOM 2125 SG CYS B 344 166.610 192.029 144.755 1.00112.61 S
ATOM 2126 N ALA B 345 163.389 189.637 146.334 1.00104.58 N
ATOM 2127 CA ALA B 345 163.245 188.235 146.733 1.00104.58 C
ATOM 2128 C ALA B 345 163.588 187.301 145.573 1.00104.58 C
ATOM 2129 O ALA B 345 162.727 186.894 144.792 1.00104.58 O
ATOM 2130 CB ALA B 345 161.836 187.974 147.251 1.00104.58 C
ATOM 2131 N LEU B 346 164.867 186.942 145.478 1.00101.94 N
ATOM 2132 CA LEU B 346 165.344 186.027 144.448 1.00101.94 C
ATOM 2133 C LEU B 346 166.172 184.926 145.094 1.00101.94 C
ATOM 2134 O LEU B 346 167.093 185.214 145.861 1.00101.94 O
ATOM 2135 CB LEU B 346 166.176 186.774 143.401 1.00101.94 C
ATOM 2136 CG LEU B 346 167.573 187.233 143.826 1.00101.94 C
ATOM 2137 CD1 LEU B 346 168.600 186.138 143.582 1.00101.94 C
ATOM 2138 CD2 LEU B 346 167.973 188.520 143.123 1.00101.94 C
ATOM 2139 N THR B 347 165.845 183.670 144.787 1.00 96.38 N
ATOM 2140 CA THR B 347 166.546 182.545 145.404 1.00 96.38 C
ATOM 2141 C THR B 347 166.971 181.441 144.446 1.00 96.38 C
ATOM 2142 O THR B 347 167.890 180.690 144.788 1.00 96.38 O
ATOM 2143 CB THR B 347 165.683 181.928 146.510 1.00 96.38 C
ATOM 2144 OG1 THR B 347 164.330 181.810 146.054 1.00 96.38 O
ATOM 2145 CG2 THR B 347 165.716 182.802 147.745 1.00 96.38 C
ATOM 2146 N PHE B 348 166.365 181.307 143.269 1.00 92.04 N
ATOM 2147 CA PHE B 348 166.609 180.173 142.377 1.00 92.04 C
ATOM 2148 C PHE B 348 166.272 178.854 143.076 1.00 92.04 C

ATOM 2149 O PHE B 348 167.128 178.001 143.315 1.00 92.04 O
ATOM 2150 CB PHE B 348 168.051 180.173 141.861 1.00 92.04 C
ATOM 2151 CG PHE B 348 168.368 179.022 140.947 1.00 92.04 C
ATOM 2152 CD1 PHE B 348 167.361 178.361 140.267 1.00 92.04 C
ATOM 2153 CD2 PHE B 348 169.672 178.598 140.775 1.00 92.04 C
ATOM 2154 CE1 PHE B 348 167.648 177.304 139.434 1.00 92.04 C
ATOM 2155 CE2 PHE B 348 169.966 177.541 139.940 1.00 92.04 C
ATOM 2156 CZ PHE B 348 168.952 176.894 139.268 1.00 92.04 C
ATOM 2157 N TRP B 349 164.989 178.703 143.403 1.00 91.20 N
ATOM 2158 CA TRP B 349 164.547 177.509 144.115 1.00 91.20 C
ATOM 2159 C TRP B 349 164.799 176.238 143.313 1.00 91.20 C
ATOM 2160 O TRP B 349 165.159 175.208 143.890 1.00 91.20 O
ATOM 2161 CB TRP B 349 163.067 177.630 144.469 1.00 91.20 C
ATOM 2162 CG TRP B 349 162.506 176.417 145.147 1.00 91.20 C
ATOM 2163 CD1 TRP B 349 162.747 176.006 146.424 1.00 91.20 C
ATOM 2164 CD2 TRP B 349 161.603 175.461 144.582 1.00 91.20 C
ATOM 2165 NE1 TRP B 349 162.052 174.852 146.690 1.00 91.20 N
ATOM 2166 CE2 TRP B 349 161.342 174.497 145.574 1.00 91.20 C
ATOM 2167 CE3 TRP B 349 160.991 175.325 143.333 1.00 91.20 C
ATOM 2168 CZ2 TRP B 349 160.496 173.412 145.356 1.00 91.20 C
ATOM 2169 CZ3 TRP B 349 160.152 174.248 143.119 1.00 91.20 C
ATOM 2170 CH2 TRP B 349 159.913 173.307 144.124 1.00 91.20 C
ATOM 2171 N GLU B 350 164.620 176.282 141.995 1.00 93.27 N
ATOM 2172 CA GLU B 350 164.716 175.074 141.180 1.00 93.27 C
ATOM 2173 C GLU B 350 164.785 175.481 139.714 1.00 93.27 C
ATOM 2174 O GLU B 350 164.488 176.623 139.351 1.00 93.27 O
ATOM 2175 CB GLU B 350 163.526 174.142 141.418 1.00 93.27 C
ATOM 2176 CG GLU B 350 163.674 172.761 140.811 1.00 93.27 C
ATOM 2177 CD GLU B 350 164.449 171.818 141.700 1.00 93.27 C
ATOM 2178 OE1 GLU B 350 165.092 172.296 142.657 1.00 93.27 O
ATOM 2179 OE2 GLU B 350 164.411 170.597 141.445 1.00 93.27 O
ATOM 2180 N ALA B 351 165.178 174.529 138.872 1.00 91.27 N
ATOM 2181 CA ALA B 351 165.222 174.773 137.433 1.00 91.27 C
ATOM 2182 C ALA B 351 165.223 173.439 136.709 1.00 91.27 C

ATOM 2183 O ALA B 351 166.177 172.667 136.840 1.00 91.27 O
ATOM 2184 CB ALA B 351 166.450 175.592 137.056 1.00 91.27 C
ATOM 2185 N SER B 352 164.174 173.176 135.941 1.00 91.46 N
ATOM 2186 CA SER B 352 164.092 171.961 135.150 1.00 91.46 C
ATOM 2187 C SER B 352 164.713 172.184 133.774 1.00 91.46 C
ATOM 2188 O SER B 352 165.041 173.307 133.385 1.00 91.46 O
ATOM 2189 CB SER B 352 162.642 171.506 135.020 1.00 91.46 C
ATOM 2190 OG SER B 352 162.494 170.597 133.946 1.00 91.46 O
ATOM 2191 N GLU B 353 164.876 171.089 133.031 1.00 93.87 N
ATOM 2192 CA GLU B 353 165.470 171.136 131.703 1.00 93.87 C
ATOM 2193 C GLU B 353 164.566 170.601 130.603 1.00 93.87 C
ATOM 2194 O GLU B 353 164.934 170.699 129.428 1.00 93.87 O
ATOM 2195 CB GLU B 353 166.793 170.356 131.680 1.00 93.87 C
ATOM 2196 CG GLU B 353 168.017 171.180 132.027 1.00 93.87 C
ATOM 2197 CD GLU B 353 169.271 170.339 132.116 1.00 93.87 C
ATOM 2198 OE1 GLU B 353 170.377 170.906 132.014 1.00 93.87 O
ATOM 2199 OE2 GLU B 353 169.149 169.108 132.294 1.00 93.87 O
ATOM 2200 N ARG B 354 163.414 170.027 130.942 1.00 93.93 N
ATOM 2201 CA ARG B 354 162.414 169.668 129.938 1.00 93.93 C
ATOM 2202 C ARG B 354 161.060 169.642 130.629 1.00 93.93 C
ATOM 2203 O ARG B 354 160.759 168.696 131.362 1.00 93.93 O
ATOM 2204 CB ARG B 354 162.728 168.324 129.295 1.00 93.93 C
ATOM 2205 CG ARG B 354 161.839 168.014 128.097 1.00 93.93 C
ATOM 2206 CD ARG B 354 161.659 166.519 127.889 1.00 93.93 C
ATOM 2207 NE ARG B 354 162.845 165.897 127.309 1.00 93.93 N
ATOM 2208 CZ ARG B 354 163.256 166.090 126.060 1.00 93.93 C
ATOM 2209 NH1 ARG B 354 162.576 166.894 125.253 1.00 93.93 N
ATOM 2210 NH2 ARG B 354 164.347 165.481 125.617 1.00 93.93 N
ATOM 2211 N THR B 355 160.250 170.669 130.392 1.00 91.70 N
ATOM 2212 CA THR B 355 158.940 170.802 131.008 1.00 91.70 C
ATOM 2213 C THR B 355 157.850 170.701 129.949 1.00 91.70 C
ATOM 2214 O THR B 355 158.115 170.697 128.745 1.00 91.70 O
ATOM 2215 CB THR B 355 158.815 172.130 131.760 1.00 91.70 C
ATOM 2216 OG1 THR B 355 157.645 172.101 132.584 1.00 91.70 O

ATOM 2217 CG2 THR B 355 158.702 173.279 130.778 1.00 91.70 C
ATOM 2218 N ILE B 356 156.607 170.622 130.416 1.00 91.75 N
ATOM 2219 CA ILE B 356 155.438 170.516 129.553 1.00 91.75 C
ATOM 2220 C ILE B 356 154.370 171.466 130.075 1.00 91.75 C
ATOM 2221 O ILE B 356 154.048 171.448 131.267 1.00 91.75 O
ATOM 2222 CB ILE B 356 154.901 169.076 129.496 1.00 91.75 C
ATOM 2223 CG1 ILE B 356 156.006 168.117 129.058 1.00 91.75 C
ATOM 2224 CG2 ILE B 356 153.731 168.993 128.549 1.00 91.75 C
ATOM 2225 CD1 ILE B 356 155.565 166.680 128.979 1.00 91.75 C
ATOM 2226 N ARG B 357 153.824 172.291 129.187 1.00 92.35 N
ATOM 2227 CA ARG B 357 152.854 173.318 129.549 1.00 92.35 C
ATOM 2228 C ARG B 357 151.536 173.009 128.857 1.00 92.35 C
ATOM 2229 O ARG B 357 151.479 172.954 127.625 1.00 92.35 O
ATOM 2230 CB ARG B 357 153.362 174.705 129.157 1.00 92.35 C
ATOM 2231 CG ARG B 357 152.422 175.838 129.498 1.00 92.35 C
ATOM 2232 CD ARG B 357 151.538 176.178 128.320 1.00 92.35 C
ATOM 2233 NE ARG B 357 152.275 176.819 127.237 1.00 92.35 N
ATOM 2234 CZ ARG B 357 152.604 178.104 127.219 1.00 92.35 C
ATOM 2235 NH1 ARG B 357 153.269 178.607 126.190 1.00 92.35 N
ATOM 2236 NH2 ARG B 357 152.271 178.888 128.232 1.00 92.35 N
ATOM 2237 N SER B 358 150.481 172.810 129.646 1.00100.09 N
ATOM 2238 CA SER B 358 149.165 172.436 129.129 1.00100.09 C
ATOM 2239 C SER B 358 148.122 173.407 129.675 1.00100.09 C
ATOM 2240 O SER B 358 147.755 173.332 130.851 1.00100.09 O
ATOM 2241 CB SER B 358 148.822 171.000 129.504 1.00100.09 C
ATOM 2242 OG SER B 358 148.253 170.937 130.799 1.00100.09 O
ATOM 2243 N GLU B 359 147.643 174.307 128.822 1.00111.58 N
ATOM 2244 CA GLU B 359 146.628 175.278 129.211 1.00111.58 C
ATOM 2245 C GLU B 359 145.253 174.630 129.142 1.00111.58 C
ATOM 2246 O GLU B 359 144.844 174.153 128.079 1.00111.58 O
ATOM 2247 CB GLU B 359 146.686 176.495 128.292 1.00111.58 C
ATOM 2248 CG GLU B 359 146.545 176.146 126.820 1.00111.58 C
ATOM 2249 CD GLU B 359 146.029 177.305 125.992 1.00111.58 C
ATOM 2250 OE1 GLU B 359 145.155 178.045 126.488 1.00111.58 O

ATOM 2251 OE2 GLU B 359 146.499 177.474 124.847 1.00111.58 O
ATOM 2252 N ALA B 360 144.531 174.605 130.265 1.00116.44 N
ATOM 2253 CA ALA B 360 143.242 173.929 130.243 1.00116.44 C
ATOM 2254 C ALA B 360 142.068 174.872 129.997 1.00116.44 C
ATOM 2255 O ALA B 360 141.442 174.812 128.934 1.00116.44 O
ATOM 2256 CB ALA B 360 143.031 173.167 131.554 1.00116.44 C
ATOM 2257 N GLU B 361 141.764 175.758 130.947 1.00117.36 N
ATOM 2258 CA GLU B 361 140.641 176.672 130.751 1.00117.36 C
ATOM 2259 C GLU B 361 141.049 178.132 130.899 1.00117.36 C
ATOM 2260 O GLU B 361 140.744 178.963 130.038 1.00117.36 O
ATOM 2261 CB GLU B 361 139.501 176.347 131.723 1.00117.36 C
ATOM 2262 CG GLU B 361 139.836 176.511 133.200 1.00117.36 C
ATOM 2263 CD GLU B 361 140.848 175.498 133.691 1.00117.36 C
ATOM 2264 OE1 GLU B 361 141.002 174.450 133.032 1.00117.36 O
ATOM 2265 OE2 GLU B 361 141.489 175.748 134.733 1.00117.36 O
ATOM 2266 N ASP B 362 141.735 178.451 131.998 1.00114.07 N
ATOM 2267 CA ASP B 362 142.146 179.818 132.283 1.00114.07 C
ATOM 2268 C ASP B 362 143.520 179.873 132.935 1.00114.07 C
ATOM 2269 O ASP B 362 143.940 180.952 133.371 1.00114.07 O
ATOM 2270 CB ASP B 362 141.116 180.517 133.178 1.00114.07 C
ATOM 2271 CG ASP B 362 140.956 179.842 134.530 1.00114.07 C
ATOM 2272 OD1 ASP B 362 141.969 179.397 135.111 1.00114.07 O
ATOM 2273 OD2 ASP B 362 139.810 179.761 135.020 1.00114.07 O
ATOM 2274 N SER B 363 144.217 178.748 133.029 1.00109.91 N
ATOM 2275 CA SER B 363 145.503 178.676 133.706 1.00109.91 C
ATOM 2276 C SER B 363 146.400 177.761 132.882 1.00109.91 C
ATOM 2277 O SER B 363 146.109 177.444 131.724 1.00109.91 O
ATOM 2278 CB SER B 363 145.318 178.199 135.154 1.00109.91 C
ATOM 2279 OG SER B 363 144.359 178.990 135.830 1.00109.91 O
ATOM 2280 N TYR B 364 147.507 177.331 133.475 1.00101.53 N
ATOM 2281 CA TYR B 364 148.432 176.417 132.829 1.00101.53 C
ATOM 2282 C TYR B 364 148.730 175.267 133.780 1.00101.53 C
ATOM 2283 O TYR B 364 148.184 175.184 134.883 1.00101.53 O
ATOM 2284 CB TYR B 364 149.715 177.141 132.411 1.00101.53 C

ATOM 2285 CG TYR B 364 149.483 178.253 131.417 1.00101.53 C
ATOM 2286 CD1 TYR B 364 149.116 179.518 131.838 1.00101.53 C
ATOM 2287 CD2 TYR B 364 149.633 178.035 130.059 1.00101.53 C
ATOM 2288 CE1 TYR B 364 148.907 180.535 130.933 1.00101.53 C
ATOM 2289 CE2 TYR B 364 149.422 179.045 129.148 1.00101.53 C
ATOM 2290 CZ TYR B 364 149.061 180.293 129.590 1.00101.53 C
ATOM 2291 OH TYR B 364 148.851 181.303 128.682 1.00101.53 O
ATOM 2292 N HIS B 365 149.604 174.365 133.342 1.00 99.68 N
ATOM 2293 CA HIS B 365 149.999 173.223 134.165 1.00 99.68 C
ATOM 2294 C HIS B 365 151.455 172.905 133.822 1.00 99.68 C
ATOM 2295 O HIS B 365 151.738 172.170 132.875 1.00 99.68 O
ATOM 2296 CB HIS B 365 149.091 172.025 133.929 1.00 99.68 C
ATOM 2297 CG HIS B 365 147.750 172.146 134.582 1.00 99.68 C
ATOM 2298 ND1 HIS B 365 147.560 172.808 135.774 1.00 99.68 N
ATOM 2299 CD2 HIS B 365 146.533 171.687 134.208 1.00 99.68 C
ATOM 2300 CE1 HIS B 365 146.282 172.752 136.108 1.00 99.68 C
ATOM 2301 NE2 HIS B 365 145.638 172.076 135.174 1.00 99.68 N
ATOM 2302 N PHE B 366 152.368 173.470 134.602 1.00 94.58 N
ATOM 2303 CA PHE B 366 153.792 173.234 134.419 1.00 94.58 C
ATOM 2304 C PHE B 366 154.183 171.986 135.197 1.00 94.58 C
ATOM 2305 O PHE B 366 154.101 171.966 136.429 1.00 94.58 O
ATOM 2306 CB PHE B 366 154.601 174.442 134.883 1.00 94.58 C
ATOM 2307 CG PHE B 366 154.329 175.689 134.096 1.00 94.58 C
ATOM 2308 CD1 PHE B 366 155.009 175.942 132.919 1.00 94.58 C
ATOM 2309 CD2 PHE B 366 153.398 176.611 134.536 1.00 94.58 C
ATOM 2310 CE1 PHE B 366 154.763 177.088 132.197 1.00 94.58 C
ATOM 2311 CE2 PHE B 366 153.149 177.759 133.817 1.00 94.58 C
ATOM 2312 CZ PHE B 366 153.832 177.997 132.646 1.00 94.58 C
ATOM 2313 N SER B 367 154.605 170.946 134.479 1.00 94.04 N
ATOM 2314 CA SER B 367 154.932 169.651 135.073 1.00 94.04 C
ATOM 2315 C SER B 367 156.318 169.237 134.591 1.00 94.04 C
ATOM 2316 O SER B 367 156.454 168.641 133.519 1.00 94.04 O
ATOM 2317 CB SER B 367 153.881 168.609 134.717 1.00 94.04 C
ATOM 2318 OG SER B 367 154.054 168.157 133.388 1.00 94.04 O

ATOM 2319 N SER B 368 157.340 169.551 135.384 1.00 97.62 N
ATOM 2320 CA SER B 368 158.697 169.136 135.058 1.00 97.62 C
ATOM 2321 C SER B 368 158.740 167.636 134.804 1.00 97.62 C
ATOM 2322 O SER B 368 158.120 166.850 135.524 1.00 97.62 O
ATOM 2323 CB SER B 368 159.654 169.512 136.190 1.00 97.62 C
ATOM 2324 OG SER B 368 159.079 169.227 137.452 1.00 97.62 O
ATOM 2325 N ALA B 369 159.498 167.236 133.791 1.00 97.90 N
ATOM 2326 CA ALA B 369 159.631 165.827 133.458 1.00 97.90 C
ATOM 2327 C ALA B 369 160.633 165.166 134.380 1.00 97.90 C
ATOM 2328 O ALA B 369 161.375 164.290 133.967 1.00 97.90 O
ATOM 2329 CB ALA B 369 160.048 165.656 132.013 1.00 97.90 C
ATOM 2330 N LYS B 370 160.664 165.616 135.627 1.00100.37 N
ATOM 2331 CA LYS B 370 161.553 165.063 136.648 1.00100.37 C
ATOM 2332 C LYS B 370 160.759 164.625 137.869 1.00100.37 C
ATOM 2333 O LYS B 370 161.330 164.164 138.841 1.00100.37 O
ATOM 2334 CB LYS B 370 162.588 166.096 137.090 1.00100.37 C
ATOM 2335 CG LYS B 370 163.618 166.449 136.038 1.00100.37 C
ATOM 2336 CD LYS B 370 164.865 167.018 136.681 1.00100.37 C
ATOM 2337 CE LYS B 370 166.108 166.329 136.149 1.00100.37 C
ATOM 2338 NZ LYS B 370 166.478 165.145 136.966 1.00100.37 N
ATOM 2339 N MET B 371 159.437 164.764 137.791 1.00101.97 N
ATOM 2340 CA MET B 371 158.497 164.417 138.854 1.00101.97 C
ATOM 2341 C MET B 371 158.745 165.146 140.185 1.00101.97 C
ATOM 2342 O MET B 371 158.474 164.604 141.249 1.00101.97 O
ATOM 2343 CB MET B 371 158.389 162.891 139.050 1.00101.97 C
ATOM 2344 CG MET B 371 158.570 162.037 137.800 1.00101.97 C
ATOM 2345 SD MET B 371 157.352 162.298 136.498 1.00101.97 S
ATOM 2346 CE MET B 371 158.094 161.424 135.126 1.00101.97 C
ATOM 2347 N THR B 372 159.221 166.388 140.125 1.00 97.73 N
ATOM 2348 CA THR B 372 159.494 167.148 141.344 1.00 97.73 C
ATOM 2349 C THR B 372 158.821 168.506 141.487 1.00 97.73 C
ATOM 2350 O THR B 372 158.924 169.112 142.547 1.00 97.73 O
ATOM 2351 CB THR B 372 160.987 167.429 141.506 1.00 97.73 C
ATOM 2352 OG1 THR B 372 161.385 168.412 140.549 1.00 97.73 O

ATOM 2353 CG2 THR B 372 161.788 166.183 141.302 1.00 97.73 C
ATOM 2354 N ALA B 373 158.152 168.996 140.447 1.00 99.02 N
ATOM 2355 CA ALA B 373 157.504 170.302 140.520 1.00 99.02 C
ATOM 2356 C ALA B 373 156.388 170.495 139.507 1.00 99.02 C
ATOM 2357 O ALA B 373 156.658 170.626 138.326 1.00 99.02 O
ATOM 2358 CB ALA B 373 158.536 171.408 140.338 1.00 99.02 C
ATOM 2359 N THR B 374 155.135 170.492 139.964 1.00 97.26 N
ATOM 2360 CA THR B 374 153.972 170.721 139.102 1.00 97.26 C
ATOM 2361 C THR B 374 153.028 171.706 139.784 1.00 97.26 C
ATOM 2362 O THR B 374 152.498 171.386 140.835 1.00 97.26 O
ATOM 2363 CB THR B 374 153.158 169.434 138.813 1.00 97.26 C
ATOM 2364 OG1 THR B 374 152.184 169.216 139.842 1.00 97.26 O
ATOM 2365 CG2 THR B 374 154.036 168.203 138.696 1.00 97.26 C
ATOM 2366 N PHE B 375 152.789 172.879 139.199 1.00 97.47 N
ATOM 2367 CA PHE B 375 151.884 173.855 139.817 1.00 97.47 C
ATOM 2368 C PHE B 375 150.757 174.337 138.907 1.00 97.47 C
ATOM 2369 O PHE B 375 150.419 173.678 137.938 1.00 97.47 O
ATOM 2370 CB PHE B 375 152.668 175.054 140.318 1.00 97.47 C
ATOM 2371 CG PHE B 375 154.049 175.141 139.761 1.00 97.47 C
ATOM 2372 CD1 PHE B 375 155.065 174.375 140.283 1.00 97.47 C
ATOM 2373 CD2 PHE B 375 154.327 175.996 138.726 1.00 97.47 C
ATOM 2374 CE1 PHE B 375 156.339 174.451 139.777 1.00 97.47 C
ATOM 2375 CE2 PHE B 375 155.598 176.083 138.214 1.00 97.47 C
ATOM 2376 CZ PHE B 375 156.606 175.307 138.739 1.00 97.47 C
ATOM 2377 N LEU B 376 150.157 175.476 139.242 1.00 98.78 N
ATOM 2378 CA LEU B 376 149.085 176.049 138.429 1.00 98.78 C
ATOM 2379 C LEU B 376 149.234 177.567 138.444 1.00 98.78 C
ATOM 2380 O LEU B 376 148.941 178.216 139.451 1.00 98.78 O
ATOM 2381 CB LEU B 376 147.718 175.618 138.949 1.00 98.78 C
ATOM 2382 CG LEU B 376 146.505 175.876 138.056 1.00 98.78 C
ATOM 2383 CD1 LEU B 376 145.341 175.003 138.485 1.00 98.78 C
ATOM 2384 CD2 LEU B 376 146.114 177.340 138.100 1.00 98.78 C
ATOM 2385 N SER B 377 149.682 178.124 137.326 1.00102.69 N
ATOM 2386 CA SER B 377 149.865 179.560 137.191 1.00102.69 C

ATOM 2387 C SER B 377 148.577 180.202 136.678 1.00102.69 C
ATOM 2388 O SER B 377 147.514 179.577 136.637 1.00102.69 O
ATOM 2389 CB SER B 377 151.044 179.859 136.273 1.00102.69 C
ATOM 2390 OG SER B 377 150.946 181.170 135.746 1.00102.69 O
ATOM 2391 N LYS B 378 148.663 181.469 136.284 1.00105.58 N
ATOM 2392 CA LYS B 378 147.524 182.212 135.762 1.00105.58 C
ATOM 2393 C LYS B 378 147.918 182.854 134.442 1.00105.58 C
ATOM 2394 O LYS B 378 148.991 183.456 134.338 1.00105.58 O
ATOM 2395 CB LYS B 378 147.056 183.277 136.757 1.00105.58 C
ATOM 2396 CG LYS B 378 146.160 182.742 137.862 1.00105.58 C
ATOM 2397 CD LYS B 378 145.663 183.861 138.760 1.00105.58 C
ATOM 2398 CE LYS B 378 145.397 185.130 137.969 1.00105.58 C
ATOM 2399 NZ LYS B 378 144.488 184.886 136.816 1.00105.58 N
ATOM 2400 N LYS B 379 147.044 182.738 133.443 1.00110.70 N
ATOM 2401 CA LYS B 379 147.353 183.165 132.078 1.00110.70 C
ATOM 2402 C LYS B 379 147.328 184.688 132.003 1.00110.70 C
ATOM 2403 O LYS B 379 146.358 185.311 131.564 1.00110.70 O
ATOM 2404 CB LYS B 379 146.373 182.548 131.089 1.00110.70 C
ATOM 2405 CG LYS B 379 144.913 182.777 131.434 1.00110.70 C
ATOM 2406 CD LYS B 379 144.003 182.274 130.326 1.00110.70 C
ATOM 2407 CE LYS B 379 144.351 180.847 129.936 1.00110.70 C
ATOM 2408 NZ LYS B 379 143.546 180.378 128.777 1.00110.70 N
ATOM 2409 N GLN B 380 148.428 185.298 132.435 1.00109.74 N
ATOM 2410 CA GLN B 380 148.561 186.750 132.370 1.00109.74 C
ATOM 2411 C GLN B 380 150.042 187.095 132.438 1.00109.74 C
ATOM 2412 O GLN B 380 150.673 186.891 133.480 1.00109.74 O
ATOM 2413 CB GLN B 380 147.788 187.415 133.501 1.00109.74 C
ATOM 2414 CG GLN B 380 146.336 187.705 133.176 1.00109.74 C
ATOM 2415 CD GLN B 380 146.182 188.812 132.156 1.00109.74 C
ATOM 2416 OE1 GLN B 380 147.142 189.192 131.486 1.00109.74 O
ATOM 2417 NE2 GLN B 380 144.970 189.340 132.033 1.00109.74 N
ATOM 2418 N GLU B 381 150.590 187.607 131.339 1.00107.99 N
ATOM 2419 CA GLU B 381 151.959 188.098 131.363 1.00107.99 C
ATOM 2420 C GLU B 381 152.111 189.138 132.463 1.00107.99 C

ATOM 2421 O GLU B 381 151.161 189.842 132.814 1.00107.99 O
ATOM 2422 CB GLU B 381 152.338 188.696 130.008 1.00107.99 C
ATOM 2423 CG GLU B 381 152.454 187.676 128.891 1.00107.99 C
ATOM 2424 CD GLU B 381 153.854 187.111 128.756 1.00107.99 C
ATOM 2425 OE1 GLU B 381 154.820 187.828 129.086 1.00107.99 O
ATOM 2426 OE2 GLU B 381 153.987 185.949 128.317 1.00107.99 O
ATOM 2427 N VAL B 382 153.318 189.233 133.015 1.00111.53 N
ATOM 2428 CA VAL B 382 153.550 190.110 134.157 1.00111.53 C
ATOM 2429 C VAL B 382 154.575 191.173 133.787 1.00111.53 C
ATOM 2430 O VAL B 382 155.368 191.608 134.628 1.00111.53 O
ATOM 2431 CB VAL B 382 153.987 189.306 135.397 1.00111.53 C
ATOM 2432 CG1 VAL B 382 155.275 188.559 135.126 1.00111.53 C
ATOM 2433 CG2 VAL B 382 154.115 190.209 136.615 1.00111.53 C
ATOM 2434 N ASN B 383 154.573 191.595 132.522 1.00122.87 N
ATOM 2435 CA ASN B 383 155.357 192.748 132.087 1.00122.87 C
ATOM 2436 C ASN B 383 156.848 192.534 132.367 1.00122.87 C
ATOM 2437 O ASN B 383 157.459 193.187 133.214 1.00122.87 O
ATOM 2438 CB ASN B 383 154.844 194.027 132.756 1.00122.87 C
ATOM 2439 CG ASN B 383 153.476 194.433 132.257 1.00122.87 C
ATOM 2440 OD1 ASN B 383 153.202 194.382 131.059 1.00122.87 O
ATOM 2441 ND2 ASN B 383 152.604 194.832 133.175 1.00122.87 N
ATOM 2442 N MET B 384 157.413 191.582 131.626 1.00116.33 N
ATOM 2443 CA MET B 384 158.803 191.167 131.797 1.00116.33 C
ATOM 2444 C MET B 384 159.751 192.348 131.968 1.00116.33 C
ATOM 2445 O MET B 384 160.816 192.206 132.576 1.00116.33 O
ATOM 2446 CB MET B 384 159.247 190.320 130.603 1.00116.33 C
ATOM 2447 CG MET B 384 160.752 190.284 130.378 1.00116.33 C
ATOM 2448 SD MET B 384 161.615 189.187 131.514 1.00116.33 S
ATOM 2449 CE MET B 384 163.218 189.088 130.726 1.00116.33 C
ATOM 2450 N SER B 385 159.383 193.517 131.441 1.00128.41 N
ATOM 2451 CA SER B 385 160.185 194.725 131.587 1.00128.41 C
ATOM 2452 C SER B 385 159.630 195.665 132.654 1.00128.41 C
ATOM 2453 O SER B 385 159.732 196.889 132.518 1.00128.41 O
ATOM 2454 CB SER B 385 160.299 195.447 130.245 1.00128.41 C

ATOM 2455 OG SER B 385 160.603 194.537 129.203 1.00128.41 O
ATOM 2456 N ASP B 386 159.049 195.115 133.715 1.00124.81 N
ATOM 2457 CA ASP B 386 158.458 195.909 134.781 1.00124.81 C
ATOM 2458 C ASP B 386 159.474 196.166 135.891 1.00124.81 C
ATOM 2459 O ASP B 386 160.516 195.513 135.984 1.00124.81 O
ATOM 2460 CB ASP B 386 157.217 195.208 135.336 1.00124.81 C
ATOM 2461 CG ASP B 386 156.435 196.077 136.298 1.00124.81 C
ATOM 2462 OD1 ASP B 386 156.989 196.441 137.356 1.00124.81 O
ATOM 2463 OD2 ASP B 386 155.267 196.398 135.994 1.00124.81 O
ATOM 2464 N SER B 387 159.157 197.142 136.741 1.00126.07 N
ATOM 2465 CA SER B 387 160.024 197.551 137.844 1.00126.07 C
ATOM 2466 C SER B 387 159.516 196.895 139.125 1.00126.07 C
ATOM 2467 O SER B 387 158.995 197.552 140.027 1.00126.07 O
ATOM 2468 CB SER B 387 160.060 199.073 137.969 1.00126.07 C
ATOM 2469 OG SER B 387 158.753 199.617 137.970 1.00126.07 O
ATOM 2470 N ALA B 388 159.678 195.577 139.196 1.00121.05 N
ATOM 2471 CA ALA B 388 159.432 194.831 140.421 1.00121.05 C
ATOM 2472 C ALA B 388 160.487 193.777 140.703 1.00121.05 C
ATOM 2473 O ALA B 388 160.524 193.256 141.821 1.00121.05 O
ATOM 2474 CB ALA B 388 158.056 194.156 140.377 1.00121.05 C
ATOM 2475 N LEU B 389 161.340 193.439 139.730 1.00116.48 N
ATOM 2476 CA LEU B 389 162.386 192.438 139.895 1.00116.48 C
ATOM 2477 C LEU B 389 163.702 192.888 139.265 1.00116.48 C
ATOM 2478 O LEU B 389 164.561 192.045 138.972 1.00116.48 O
ATOM 2479 CB LEU B 389 161.942 191.100 139.291 1.00116.48 C
ATOM 2480 CG LEU B 389 161.391 191.183 137.866 1.00116.48 C
ATOM 2481 CD1 LEU B 389 162.508 191.219 136.836 1.00116.48 C
ATOM 2482 CD2 LEU B 389 160.442 190.028 137.592 1.00116.48 C
ATOM 2483 N ASP B 390 163.874 194.195 139.051 1.00116.13 N
ATOM 2484 CA ASP B 390 165.012 194.727 138.310 1.00116.13 C
ATOM 2485 C ASP B 390 166.347 194.230 138.837 1.00116.13 C
ATOM 2486 O ASP B 390 167.340 194.270 138.102 1.00116.13 O
ATOM 2487 CB ASP B 390 164.965 196.256 138.341 1.00116.13 C
ATOM 2488 CG ASP B 390 163.818 196.815 137.526 1.00116.13 C

ATOM 2489 OD1 ASP B 390 163.441 196.178 136.519 1.00116.13 O
ATOM 2490 OD2 ASP B 390 163.291 197.887 137.891 1.00116.13 O
ATOM 2491 N CYS B 391 166.400 193.758 140.080 1.00113.78 N
ATOM 2492 CA CYS B 391 167.652 193.228 140.600 1.00113.78 C
ATOM 2493 C CYS B 391 167.993 191.908 139.919 1.00113.78 C
ATOM 2494 O CYS B 391 169.018 191.797 139.240 1.00113.78 O
ATOM 2495 CB CYS B 391 167.574 193.086 142.126 1.00113.78 C
ATOM 2496 SG CYS B 391 166.695 191.662 142.766 1.00113.78 S
ATOM 2497 N VAL B 392 167.133 190.904 140.064 1.00109.58 N
ATOM 2498 CA VAL B 392 167.280 189.651 139.296 1.00109.58 C
ATOM 2499 C VAL B 392 166.419 189.806 138.046 1.00109.58 C
ATOM 2500 O VAL B 392 165.269 189.369 137.970 1.00109.58 O
ATOM 2501 CB VAL B 392 166.922 188.412 140.126 1.00109.58 C
ATOM 2502 CG1 VAL B 392 165.447 188.404 140.485 1.00109.58 C
ATOM 2503 CG2 VAL B 392 167.286 187.149 139.370 1.00109.58 C
ATOM 2504 N ARG B 393 166.994 190.458 137.033 1.00107.49 N
ATOM 2505 CA ARG B 393 166.355 190.522 135.725 1.00107.49 C
ATOM 2506 C ARG B 393 167.362 190.374 134.591 1.00107.49 C
ATOM 2507 O ARG B 393 166.977 190.491 133.421 1.00107.49 O
ATOM 2508 CB ARG B 393 165.571 191.828 135.557 1.00107.49 C
ATOM 2509 CG ARG B 393 164.623 191.829 134.369 1.00107.49 C
ATOM 2510 CD ARG B 393 164.087 193.220 134.083 1.00107.49 C
ATOM 2511 NE ARG B 393 165.132 194.117 133.601 1.00107.49 N
ATOM 2512 CZ ARG B 393 165.701 194.021 132.404 1.00107.49 C
ATOM 2513 NH1 ARG B 393 166.647 194.877 132.041 1.00107.49 N
ATOM 2514 NH2 ARG B 393 165.328 193.064 131.567 1.00107.49 N
ATOM 2515 N ASP B 394 168.634 190.133 134.897 1.00101.94 N
ATOM 2516 CA ASP B 394 169.632 189.886 133.867 1.00101.94 C
ATOM 2517 C ASP B 394 170.494 188.680 134.215 1.00101.94 C
ATOM 2518 O ASP B 394 171.502 188.440 133.540 1.00101.94 O
ATOM 2519 CB ASP B 394 170.514 191.121 133.659 1.00101.94 C
ATOM 2520 CG ASP B 394 171.358 191.031 132.404 1.00101.94 C
ATOM 2521 OD1 ASP B 394 170.819 191.289 131.311 1.00101.94 O
ATOM 2522 OD2 ASP B 394 172.557 190.695 132.509 1.00101.94 O

ATOM 2523 N GLU B 395 170.131 187.922 135.247 1.00 99.53 N
ATOM 2524 CA GLU B 395 170.857 186.727 135.654 1.00 99.53 C
ATOM 2525 C GLU B 395 170.183 185.452 135.167 1.00 99.53 C
ATOM 2526 O GLU B 395 170.838 184.592 134.573 1.00 99.53 O
ATOM 2527 CB GLU B 395 170.994 186.693 137.181 1.00 99.53 C
ATOM 2528 CG GLU B 395 171.249 185.312 137.759 1.00 99.53 C
ATOM 2529 CD GLU B 395 172.468 184.648 137.162 1.00 99.53 C
ATOM 2530 OE1 GLU B 395 173.261 185.348 136.496 1.00 99.53 O
ATOM 2531 OE2 GLU B 395 172.634 183.427 137.358 1.00 99.53 O
ATOM 2532 N ALA B 396 168.881 185.312 135.414 1.00 96.08 N
ATOM 2533 CA ALA B 396 168.169 184.129 134.946 1.00 96.08 C
ATOM 2534 C ALA B 396 168.308 183.961 133.440 1.00 96.08 C
ATOM 2535 O ALA B 396 168.386 182.835 132.940 1.00 96.08 O
ATOM 2536 CB ALA B 396 166.697 184.211 135.344 1.00 96.08 C
ATOM 2537 N ILE B 397 168.345 185.070 132.700 1.00 95.14 N
ATOM 2538 CA ILE B 397 168.447 184.986 131.246 1.00 95.14 C
ATOM 2539 C ILE B 397 169.734 184.283 130.835 1.00 95.14 C
ATOM 2540 O ILE B 397 169.737 183.441 129.931 1.00 95.14 O
ATOM 2541 CB ILE B 397 168.342 186.387 130.619 1.00 95.14 C
ATOM 2542 CG1 ILE B 397 166.879 186.811 130.511 1.00 95.14 C
ATOM 2543 CG2 ILE B 397 169.017 186.413 129.259 1.00 95.14 C
ATOM 2544 CD1 ILE B 397 166.691 188.195 129.942 1.00 95.14 C
ATOM 2545 N ASN B 398 170.848 184.615 131.488 1.00 94.06 N
ATOM 2546 CA ASN B 398 172.115 184.001 131.112 1.00 94.06 C
ATOM 2547 C ASN B 398 172.151 182.527 131.495 1.00 94.06 C
ATOM 2548 O ASN B 398 172.614 181.691 130.713 1.00 94.06 O
ATOM 2549 CB ASN B 398 173.276 184.755 131.751 1.00 94.06 C
ATOM 2550 CG ASN B 398 173.734 185.925 130.912 1.00 94.06 C
ATOM 2551 OD1 ASN B 398 172.990 186.426 130.069 1.00 94.06 O
ATOM 2552 ND2 ASN B 398 174.964 186.368 131.133 1.00 94.06 N
ATOM 2553 N LYS B 399 171.670 182.191 132.692 1.00 94.89 N
ATOM 2554 CA LYS B 399 171.605 180.787 133.088 1.00 94.89 C
ATOM 2555 C LYS B 399 170.730 179.992 132.130 1.00 94.89 C
ATOM 2556 O LYS B 399 171.025 178.834 131.815 1.00 94.89 O

ATOM 2557 CB LYS B 399 171.079 180.675 134.516 1.00 94.89 C
ATOM 2558 CG LYS B 399 171.110 179.271 135.086 1.00 94.89 C
ATOM 2559 CD LYS B 399 170.400 179.219 136.428 1.00 94.89 C
ATOM 2560 CE LYS B 399 170.852 180.351 137.333 1.00 94.89 C
ATOM 2561 NZ LYS B 399 169.865 180.630 138.411 1.00 94.89 N
ATOM 2562 N LEU B 400 169.661 180.612 131.631 1.00 94.89 N
ATOM 2563 CA LEU B 400 168.744 179.929 130.727 1.00 94.89 C
ATOM 2564 C LEU B 400 169.376 179.726 129.355 1.00 94.89 C
ATOM 2565 O LEU B 400 169.288 178.638 128.772 1.00 94.89 O
ATOM 2566 CB LEU B 400 167.449 180.732 130.628 1.00 94.89 C
ATOM 2567 CG LEU B 400 166.345 180.268 129.693 1.00 94.89 C
ATOM 2568 CD1 LEU B 400 165.009 180.726 130.238 1.00 94.89 C
ATOM 2569 CD2 LEU B 400 166.585 180.834 128.311 1.00 94.89 C
ATOM 2570 N GLN B 401 170.009 180.770 128.817 1.00 95.22 N
ATOM 2571 CA GLN B 401 170.764 180.611 127.580 1.00 95.22 C
ATOM 2572 C GLN B 401 171.822 179.527 127.723 1.00 95.22 C
ATOM 2573 O GLN B 401 172.074 178.767 126.782 1.00 95.22 O
ATOM 2574 CB GLN B 401 171.411 181.936 127.181 1.00 95.22 C
ATOM 2575 CG GLN B 401 170.429 182.968 126.671 1.00 95.22 C
ATOM 2576 CD GLN B 401 169.883 182.616 125.308 1.00 95.22 C
ATOM 2577 OE1 GLN B 401 170.626 182.536 124.332 1.00 95.22 O
ATOM 2578 NE2 GLN B 401 168.577 182.398 125.234 1.00 95.22 N
ATOM 2579 N GLN B 402 172.453 179.439 128.894 1.00 93.67 N
ATOM 2580 CA GLN B 402 173.451 178.399 129.116 1.00 93.67 C
ATOM 2581 C GLN B 402 172.813 177.016 129.097 1.00 93.67 C
ATOM 2582 O GLN B 402 173.342 176.091 128.470 1.00 93.67 O
ATOM 2583 CB GLN B 402 174.174 178.647 130.439 1.00 93.67 C
ATOM 2584 CG GLN B 402 175.420 177.808 130.642 1.00 93.67 C
ATOM 2585 CD GLN B 402 175.106 176.425 131.170 1.00 93.67 C
ATOM 2586 OE1 GLN B 402 174.107 176.225 131.858 1.00 93.67 O
ATOM 2587 NE2 GLN B 402 175.958 175.461 130.848 1.00 93.67 N
ATOM 2588 N ILE B 403 171.679 176.853 129.782 1.00 91.63 N
ATOM 2589 CA ILE B 403 170.987 175.568 129.770 1.00 91.63 C
ATOM 2590 C ILE B 403 170.591 175.179 128.355 1.00 91.63 C

ATOM 2591 O ILE B 403 170.598 173.993 128.003 1.00 91.63 O
ATOM 2592 CB ILE B 403 169.756 175.604 130.694 1.00 91.63 C
ATOM 2593 CG1 ILE B 403 170.180 175.615 132.162 1.00 91.63 C
ATOM 2594 CG2 ILE B 403 168.856 174.416 130.414 1.00 91.63 C
ATOM 2595 CD1 ILE B 403 169.016 175.613 133.128 1.00 91.63 C
ATOM 2596 N PHE B 404 170.235 176.159 127.524 1.00 94.30 N
ATOM 2597 CA PHE B 404 169.734 175.840 126.191 1.00 94.30 C
ATOM 2598 C PHE B 404 170.861 175.558 125.205 1.00 94.30 C
ATOM 2599 O PHE B 404 170.729 174.679 124.348 1.00 94.30 O
ATOM 2600 CB PHE B 404 168.852 176.975 125.673 1.00 94.30 C
ATOM 2601 CG PHE B 404 168.641 176.951 124.188 1.00 94.30 C
ATOM 2602 CD1 PHE B 404 167.706 176.107 123.622 1.00 94.30 C
ATOM 2603 CD2 PHE B 404 169.370 177.782 123.359 1.00 94.30 C
ATOM 2604 CE1 PHE B 404 167.509 176.088 122.258 1.00 94.30 C
ATOM 2605 CE2 PHE B 404 169.178 177.766 121.996 1.00 94.30 C
ATOM 2606 CZ PHE B 404 168.246 176.918 121.445 1.00 94.30 C
ATOM 2607 N ASN B 405 171.972 176.288 125.300 1.00 99.81 N
ATOM 2608 CA ASN B 405 173.084 176.131 124.371 1.00 99.81 C
ATOM 2609 C ASN B 405 174.023 174.997 124.754 1.00 99.81 C
ATOM 2610 O ASN B 405 175.162 174.965 124.273 1.00 99.81 O
ATOM 2611 CB ASN B 405 173.870 177.440 124.265 1.00 99.81 C
ATOM 2612 CG ASN B 405 173.304 178.379 123.216 1.00 99.81 C
ATOM 2613 OD1 ASN B 405 172.091 178.490 123.058 1.00 99.81 O
ATOM 2614 ND2 ASN B 405 174.184 179.067 122.499 1.00 99.81 N
ATOM 2615 N THR B 406 173.581 174.070 125.599 1.00 97.17 N
ATOM 2616 CA THR B 406 174.426 172.975 126.053 1.00 97.17 C
ATOM 2617 C THR B 406 173.875 171.591 125.746 1.00 97.17 C
ATOM 2618 O THR B 406 174.663 170.638 125.703 1.00 97.17 O
ATOM 2619 CB THR B 406 174.671 173.081 127.566 1.00 97.17 C
ATOM 2620 OG1 THR B 406 175.271 174.346 127.865 1.00 97.17 O
ATOM 2621 CG2 THR B 406 175.591 171.966 128.040 1.00 97.17 C
ATOM 2622 N SER B 407 172.578 171.442 125.525 1.00 95.68 N
ATOM 2623 CA SER B 407 171.985 170.144 125.225 1.00 95.68 C
ATOM 2624 C SER B 407 171.201 170.137 123.922 1.00 95.68 C

ATOM 2625 O SER B 407 171.230 169.139 123.200 1.00 95.68 O
ATOM 2626 CB SER B 407 171.070 169.705 126.379 1.00 95.68 C
ATOM 2627 OG SER B 407 171.762 169.729 127.615 1.00 95.68 O
ATOM 2628 N TYR B 408 170.500 171.221 123.606 1.00 94.77 N
ATOM 2629 CA TYR B 408 169.736 171.313 122.365 1.00 94.77 C
ATOM 2630 C TYR B 408 170.568 172.051 121.318 1.00 94.77 C
ATOM 2631 O TYR B 408 170.267 173.167 120.896 1.00 94.77 O
ATOM 2632 CB TYR B 408 168.398 171.998 122.621 1.00 94.77 C
ATOM 2633 CG TYR B 408 167.659 171.459 123.828 1.00 94.77 C
ATOM 2634 CD1 TYR B 408 167.852 170.156 124.263 1.00 94.77 C
ATOM 2635 CD2 TYR B 408 166.781 172.259 124.540 1.00 94.77 C
ATOM 2636 CE1 TYR B 408 167.182 169.666 125.365 1.00 94.77 C
ATOM 2637 CE2 TYR B 408 166.107 171.776 125.642 1.00 94.77 C
ATOM 2638 CZ TYR B 408 166.312 170.479 126.050 1.00 94.77 C
ATOM 2639 OH TYR B 408 165.644 169.996 127.149 1.00 94.77 O
ATOM 2640 N ASN B 409 171.642 171.385 120.900 1.00101.56 N
ATOM 2641 CA ASN B 409 172.634 171.992 120.022 1.00101.56 C
ATOM 2642 C ASN B 409 172.048 172.395 118.675 1.00101.56 C
ATOM 2643 O ASN B 409 171.984 173.586 118.351 1.00101.56 O
ATOM 2644 CB ASN B 409 173.804 171.028 119.814 1.00101.56 C
ATOM 2645 CG ASN B 409 173.347 169.626 119.449 1.00101.56 C
ATOM 2646 OD1 ASN B 409 172.927 169.372 118.321 1.00101.56 O
ATOM 2647 ND2 ASN B 409 173.427 168.708 120.406 1.00101.56 N
ATOM 2648 N GLN B 410 171.611 171.409 117.888 1.00106.84 N
ATOM 2649 CA GLN B 410 171.122 171.663 116.541 1.00106.84 C
ATOM 2650 C GLN B 410 169.854 170.895 116.197 1.00106.84 C
ATOM 2651 O GLN B 410 169.382 171.002 115.060 1.00106.84 O
ATOM 2652 CB GLN B 410 172.209 171.331 115.505 1.00106.84 C
ATOM 2653 CG GLN B 410 173.391 172.286 115.517 1.00106.84 C
ATOM 2654 CD GLN B 410 174.624 171.682 116.157 1.00106.84 C
ATOM 2655 OE1 GLN B 410 174.556 170.632 116.796 1.00106.84 O
ATOM 2656 NE2 GLN B 410 175.764 172.343 115.986 1.00106.84 N
ATOM 2657 N THR B 411 169.290 170.127 117.129 1.00100.26 N
ATOM 2658 CA THR B 411 168.056 169.406 116.847 1.00100.26 C

ATOM 2659 C THR B 411 166.834 170.279 117.091 1.00100.26 C
ATOM 2660 O THR B 411 165.861 170.216 116.331 1.00100.26 O
ATOM 2661 CB THR B 411 167.980 168.142 117.702 1.00100.26 C
ATOM 2662 OG1 THR B 411 167.592 168.492 119.035 1.00100.26 O
ATOM 2663 CG2 THR B 411 169.332 167.454 117.744 1.00100.26 C
ATOM 2664 N TYR B 412 166.864 171.099 118.136 1.00 96.12 N
ATOM 2665 CA TYR B 412 165.734 171.932 118.516 1.00 96.12 C
ATOM 2666 C TYR B 412 165.956 173.381 118.094 1.00 96.12 C
ATOM 2667 O TYR B 412 167.026 173.767 117.618 1.00 96.12 O
ATOM 2668 CB TYR B 412 165.494 171.847 120.025 1.00 96.12 C
ATOM 2669 CG TYR B 412 164.876 170.545 120.478 1.00 96.12 C
ATOM 2670 CD1 TYR B 412 163.510 170.328 120.367 1.00 96.12 C
ATOM 2671 CD2 TYR B 412 165.655 169.537 121.021 1.00 96.12 C
ATOM 2672 CE1 TYR B 412 162.940 169.143 120.782 1.00 96.12 C
ATOM 2673 CE2 TYR B 412 165.094 168.349 121.438 1.00 96.12 C
ATOM 2674 CZ TYR B 412 163.737 168.158 121.316 1.00 96.12 C
ATOM 2675 OH TYR B 412 163.172 166.975 121.731 1.00 96.12 O
ATOM 2676 N GLU B 413 164.914 174.188 118.280 1.00 97.58 N
ATOM 2677 CA GLU B 413 164.944 175.599 117.914 1.00 97.58 C
ATOM 2678 C GLU B 413 164.480 176.463 119.078 1.00 97.58 C
ATOM 2679 O GLU B 413 164.331 175.974 120.202 1.00 97.58 O
ATOM 2680 CB GLU B 413 164.067 175.852 116.688 1.00 97.58 C
ATOM 2681 CG GLU B 413 164.671 175.377 115.384 1.00 97.58 C
ATOM 2682 CD GLU B 413 165.716 176.331 114.850 1.00 97.58 C
ATOM 2683 OE1 GLU B 413 165.524 177.557 114.982 1.00 97.58 O
ATOM 2684 OE2 GLU B 413 166.730 175.856 114.299 1.00 97.58 O
ATOM 2685 N LYS B 414 164.257 177.750 118.826 1.00 92.57 N
ATOM 2686 CA LYS B 414 163.723 178.669 119.824 1.00 92.57 C
ATOM 2687 C LYS B 414 162.440 179.269 119.270 1.00 92.57 C
ATOM 2688 O LYS B 414 162.476 180.038 118.304 1.00 92.57 O
ATOM 2689 CB LYS B 414 164.738 179.755 120.175 1.00 92.57 C
ATOM 2690 CG LYS B 414 165.843 179.285 121.105 1.00 92.57 C
ATOM 2691 CD LYS B 414 166.820 180.407 121.409 1.00 92.57 C
ATOM 2692 CE LYS B 414 166.090 181.667 121.840 1.00 92.57 C

ATOM 2693 NZ LYS B 414 166.980 182.858 121.814 1.00 92.57 N
ATOM 2694 N TYR B 415 161.311 178.920 119.880 1.00 95.72 N
ATOM 2695 CA TYR B 415 159.993 179.333 119.401 1.00 95.72 C
ATOM 2696 C TYR B 415 159.497 180.472 120.284 1.00 95.72 C
ATOM 2697 O TYR B 415 158.857 180.255 121.313 1.00 95.72 O
ATOM 2698 CB TYR B 415 159.029 178.152 119.406 1.00 95.72 C
ATOM 2699 CG TYR B 415 157.570 178.536 119.363 1.00 95.72 C
ATOM 2700 CD1 TYR B 415 157.100 179.453 118.436 1.00 95.72 C
ATOM 2701 CD2 TYR B 415 156.660 177.972 120.246 1.00 95.72 C
ATOM 2702 CE1 TYR B 415 155.765 179.802 118.392 1.00 95.72 C
ATOM 2703 CE2 TYR B 415 155.325 178.315 120.210 1.00 95.72 C
ATOM 2704 CZ TYR B 415 154.881 179.231 119.281 1.00 95.72 C
ATOM 2705 OH TYR B 415 153.551 179.577 119.240 1.00 95.72 O
ATOM 2706 N GLY B 416 159.801 181.700 119.874 1.00 98.82 N
ATOM 2707 CA GLY B 416 159.329 182.872 120.587 1.00 98.82 C
ATOM 2708 C GLY B 416 160.418 183.608 121.337 1.00 98.82 C
ATOM 2709 O GLY B 416 161.526 183.795 120.826 1.00 98.82 O
ATOM 2710 N ASN B 417 160.109 184.035 122.556 1.00104.28 N
ATOM 2711 CA ASN B 417 161.074 184.717 123.401 1.00104.28 C
ATOM 2712 C ASN B 417 160.657 184.530 124.851 1.00104.28 C
ATOM 2713 O ASN B 417 159.559 184.048 125.147 1.00104.28 O
ATOM 2714 CB ASN B 417 161.184 186.201 123.044 1.00104.28 C
ATOM 2715 CG ASN B 417 159.889 186.944 123.263 1.00104.28 C
ATOM 2716 OD1 ASN B 417 158.811 186.435 122.961 1.00104.28 O
ATOM 2717 ND2 ASN B 417 159.984 188.159 123.791 1.00104.28 N
ATOM 2718 N VAL B 418 161.549 184.920 125.762 1.00 93.80 N
ATOM 2719 CA VAL B 418 161.318 184.668 127.176 1.00 93.80 C
ATOM 2720 C VAL B 418 160.068 185.403 127.639 1.00 93.80 C
ATOM 2721 O VAL B 418 159.738 186.493 127.153 1.00 93.80 O
ATOM 2722 CB VAL B 418 162.543 185.076 128.011 1.00 93.80 C
ATOM 2723 CG1 VAL B 418 162.426 184.518 129.412 1.00 93.80 C
ATOM 2724 CG2 VAL B 418 163.819 184.592 127.348 1.00 93.80 C
ATOM 2725 N SER B 419 159.359 184.795 128.586 1.00 94.79 N
ATOM 2726 CA SER B 419 158.154 185.380 129.151 1.00 94.79 C

ATOM 2727 C SER B 419 158.079 184.997 130.619 1.00 94.79 C
ATOM 2728 O SER B 419 158.504 183.909 131.011 1.00 94.79 O
ATOM 2729 CB SER B 419 156.899 184.913 128.410 1.00 94.79 C
ATOM 2730 OG SER B 419 156.953 183.523 128.152 1.00 94.79 O
ATOM 2731 N VAL B 420 157.525 185.898 131.425 1.00 94.36 N
ATOM 2732 CA VAL B 420 157.557 185.789 132.878 1.00 94.36 C
ATOM 2733 C VAL B 420 156.134 185.603 133.386 1.00 94.36 C
ATOM 2734 O VAL B 420 155.281 186.477 133.197 1.00 94.36 O
ATOM 2735 CB VAL B 420 158.213 187.020 133.514 1.00 94.36 C
ATOM 2736 CG1 VAL B 420 159.677 187.081 133.143 1.00 94.36 C
ATOM 2737 CG2 VAL B 420 157.522 188.276 133.039 1.00 94.36 C
ATOM 2738 N PHE B 421 155.881 184.470 134.032 1.00 94.67 N
ATOM 2739 CA PHE B 421 154.591 184.169 134.634 1.00 94.67 C
ATOM 2740 C PHE B 421 154.681 184.303 136.148 1.00 94.67 C
ATOM 2741 O PHE B 421 155.760 184.191 136.733 1.00 94.67 O
ATOM 2742 CB PHE B 421 154.117 182.759 134.266 1.00 94.67 C
ATOM 2743 CG PHE B 421 153.701 182.616 132.833 1.00 94.67 C
ATOM 2744 CD1 PHE B 421 152.560 183.239 132.368 1.00 94.67 C
ATOM 2745 CD2 PHE B 421 154.446 181.858 131.952 1.00 94.67 C
ATOM 2746 CE1 PHE B 421 152.176 183.113 131.055 1.00 94.67 C
ATOM 2747 CE2 PHE B 421 154.064 181.731 130.640 1.00 94.67 C
ATOM 2748 CZ PHE B 421 152.927 182.359 130.191 1.00 94.67 C
ATOM 2749 N GLU B 422 153.535 184.541 136.779 1.00101.48 N
ATOM 2750 CA GLU B 422 153.452 184.745 138.222 1.00101.48 C
ATOM 2751 C GLU B 422 152.401 183.799 138.787 1.00101.48 C
ATOM 2752 O GLU B 422 151.208 183.948 138.503 1.00101.48 O
ATOM 2753 CB GLU B 422 153.115 186.197 138.545 1.00101.48 C
ATOM 2754 CG GLU B 422 153.269 186.557 140.008 1.00101.48 C
ATOM 2755 CD GLU B 422 153.829 187.951 140.202 1.00101.48 C
ATOM 2756 OE1 GLU B 422 154.361 188.235 141.296 1.00101.48 O
ATOM 2757 OE2 GLU B 422 153.741 188.764 139.257 1.00101.48 O
ATOM 2758 N THR B 423 152.840 182.835 139.589 1.00100.82 N
ATOM 2759 CA THR B 423 151.942 181.822 140.129 1.00100.82 C
ATOM 2760 C THR B 423 151.106 182.422 141.257 1.00100.82 C

ATOM 2761 O THR B 423 151.128 183.627 141.520 1.00100.82 O
ATOM 2762 CB THR B 423 152.729 180.611 140.611 1.00100.82 C
ATOM 2763 OG1 THR B 423 151.822 179.632 141.131 1.00100.82 O
ATOM 2764 CG2 THR B 423 153.685 181.015 141.708 1.00100.82 C
ATOM 2765 N THR B 424 150.347 181.564 141.941 1.00105.16 N
ATOM 2766 CA THR B 424 149.501 182.014 143.040 1.00105.16 C
ATOM 2767 C THR B 424 150.291 182.139 144.338 1.00105.16 C
ATOM 2768 O THR B 424 150.138 183.120 145.074 1.00105.16 O
ATOM 2769 CB THR B 424 148.325 181.052 143.223 1.00105.16 C
ATOM 2770 OG1 THR B 424 148.817 179.710 143.327 1.00105.16 O
ATOM 2771 CG2 THR B 424 147.372 181.143 142.043 1.00105.16 C
ATOM 2772 N GLY B 425 151.138 181.151 144.636 1.00102.01 N
ATOM 2773 CA GLY B 425 151.897 181.188 145.875 1.00102.01 C
ATOM 2774 C GLY B 425 152.716 182.454 146.031 1.00102.01 C
ATOM 2775 O GLY B 425 152.782 183.033 147.117 1.00102.01 O
ATOM 2776 N GLY B 426 153.349 182.903 144.951 1.00 99.43 N
ATOM 2777 CA GLY B 426 154.149 184.109 144.996 1.00 99.43 C
ATOM 2778 C GLY B 426 155.460 183.990 144.249 1.00 99.43 C
ATOM 2779 O GLY B 426 156.136 184.994 144.003 1.00 99.43 O
ATOM 2780 N LEU B 427 155.832 182.766 143.882 1.00 94.06 N
ATOM 2781 CA LEU B 427 157.075 182.546 143.157 1.00 94.06 C
ATOM 2782 C LEU B 427 156.937 182.994 141.706 1.00 94.06 C
ATOM 2783 O LEU B 427 155.881 182.842 141.088 1.00 94.06 O
ATOM 2784 CB LEU B 427 157.475 181.074 143.236 1.00 94.06 C
ATOM 2785 CG LEU B 427 156.466 180.038 142.741 1.00 94.06 C
ATOM 2786 CD1 LEU B 427 156.573 179.849 141.240 1.00 94.06 C
ATOM 2787 CD2 LEU B 427 156.653 178.717 143.468 1.00 94.06 C
ATOM 2788 N VAL B 428 158.020 183.549 141.164 1.00 89.89 N
ATOM 2789 CA VAL B 428 158.002 184.163 139.841 1.00 89.89 C
ATOM 2790 C VAL B 428 158.803 183.318 138.861 1.00 89.89 C
ATOM 2791 O VAL B 428 160.033 183.419 138.797 1.00 89.89 O
ATOM 2792 CB VAL B 428 158.547 185.601 139.899 1.00 89.89 C
ATOM 2793 CG1 VAL B 428 159.013 186.051 138.527 1.00 89.89 C
ATOM 2794 CG2 VAL B 428 157.488 186.541 140.434 1.00 89.89 C

ATOM 2795 N VAL B 429 158.113 182.482 138.089 1.00 87.79 N
ATOM 2796 CA VAL B 429 158.741 181.607 137.106 1.00 87.79 C
ATOM 2797 C VAL B 429 158.667 182.257 135.734 1.00 87.79 C
ATOM 2798 O VAL B 429 157.653 182.872 135.379 1.00 87.79 O
ATOM 2799 CB VAL B 429 158.070 180.222 137.086 1.00 87.79 C
ATOM 2800 CG1 VAL B 429 156.584 180.362 136.835 1.00 87.79 C
ATOM 2801 CG2 VAL B 429 158.698 179.354 136.019 1.00 87.79 C
ATOM 2802 N PHE B 430 159.739 182.120 134.957 1.00 89.74 N
ATOM 2803 CA PHE B 430 159.726 182.529 133.560 1.00 89.74 C
ATOM 2804 C PHE B 430 160.628 181.601 132.764 1.00 89.74 C
ATOM 2805 O PHE B 430 161.690 181.196 133.241 1.00 89.74 O
ATOM 2806 CB PHE B 430 160.137 183.995 133.384 1.00 89.74 C
ATOM 2807 CG PHE B 430 161.350 184.400 134.167 1.00 89.74 C
ATOM 2808 CD1 PHE B 430 161.234 184.816 135.480 1.00 89.74 C
ATOM 2809 CD2 PHE B 430 162.597 184.413 133.575 1.00 89.74 C
ATOM 2810 CE1 PHE B 430 162.341 185.209 136.193 1.00 89.74 C
ATOM 2811 CE2 PHE B 430 163.706 184.805 134.283 1.00 89.74 C
ATOM 2812 CZ PHE B 430 163.578 185.204 135.595 1.00 89.74 C
ATOM 2813 N TRP B 431 160.200 181.282 131.545 1.00 89.95 N
ATOM 2814 CA TRP B 431 160.680 180.109 130.829 1.00 89.95 C
ATOM 2815 C TRP B 431 160.886 180.468 129.361 1.00 89.95 C
ATOM 2816 O TRP B 431 160.819 181.636 128.969 1.00 89.95 O
ATOM 2817 CB TRP B 431 159.679 178.961 130.998 1.00 89.95 C
ATOM 2818 CG TRP B 431 158.406 179.232 130.280 1.00 89.95 C
ATOM 2819 CD1 TRP B 431 157.592 180.310 130.449 1.00 89.95 C
ATOM 2820 CD2 TRP B 431 157.785 178.412 129.286 1.00 89.95 C
ATOM 2821 NE1 TRP B 431 156.510 180.221 129.614 1.00 89.95 N
ATOM 2822 CE2 TRP B 431 156.603 179.062 128.890 1.00 89.95 C
ATOM 2823 CE3 TRP B 431 158.116 177.193 128.690 1.00 89.95 C
ATOM 2824 CZ2 TRP B 431 155.751 178.537 127.928 1.00 89.95 C
ATOM 2825 CZ3 TRP B 431 157.270 176.674 127.736 1.00 89.95 C
ATOM 2826 CH2 TRP B 431 156.101 177.345 127.364 1.00 89.95 C
ATOM 2827 N GLN B 432 161.135 179.442 128.545 1.00 87.48 N
ATOM 2828 CA GLN B 432 161.385 179.595 127.119 1.00 87.48 C

ATOM 2829 C GLN B 432 160.654 178.503 126.354 1.00 87.48 C
ATOM 2830 O GLN B 432 160.510 177.378 126.837 1.00 87.48 O
ATOM 2831 CB GLN B 432 162.882 179.535 126.804 1.00 87.48 C
ATOM 2832 CG GLN B 432 163.202 179.601 125.330 1.00 87.48 C
ATOM 2833 CD GLN B 432 162.527 180.767 124.645 1.00 87.48 C
ATOM 2834 OE1 GLN B 432 161.300 180.841 124.584 1.00 87.48 O
ATOM 2835 NE2 GLN B 432 163.325 181.689 124.124 1.00 87.48 N
ATOM 2836 N GLY B 433 160.200 178.841 125.147 1.00 90.52 N
ATOM 2837 CA GLY B 433 159.461 177.912 124.308 1.00 90.52 C
ATOM 2838 C GLY B 433 160.356 177.296 123.247 1.00 90.52 C
ATOM 2839 O GLY B 433 161.158 177.988 122.619 1.00 90.52 O
ATOM 2840 N ILE B 434 160.198 175.988 123.049 1.00 91.61 N
ATOM 2841 CA ILE B 434 161.081 175.225 122.176 1.00 91.61 C
ATOM 2842 C ILE B 434 160.279 174.170 121.425 1.00 91.61 C
ATOM 2843 O ILE B 434 159.243 173.696 121.899 1.00 91.61 O
ATOM 2844 CB ILE B 434 162.222 174.565 122.975 1.00 91.61 C
ATOM 2845 CG1 ILE B 434 163.307 174.060 122.033 1.00 91.61 C
ATOM 2846 CG2 ILE B 434 161.690 173.425 123.818 1.00 91.61 C
ATOM 2847 CD1 ILE B 434 164.540 173.594 122.745 1.00 91.61 C
ATOM 2848 N LYS B 435 160.768 173.805 120.240 1.00 93.35 N
ATOM 2849 CA LYS B 435 160.163 172.742 119.448 1.00 93.35 C
ATOM 2850 C LYS B 435 161.190 172.221 118.453 1.00 93.35 C
ATOM 2851 O LYS B 435 162.084 172.952 118.021 1.00 93.35 O
ATOM 2852 CB LYS B 435 158.900 173.220 118.723 1.00 93.35 C
ATOM 2853 CG LYS B 435 159.087 174.464 117.882 1.00 93.35 C
ATOM 2854 CD LYS B 435 159.564 174.127 116.485 1.00 93.35 C
ATOM 2855 CE LYS B 435 159.546 175.359 115.599 1.00 93.35 C
ATOM 2856 NZ LYS B 435 160.153 175.097 114.268 1.00 93.35 N
ATOM 2857 N GLN B 436 161.041 170.948 118.091 1.00 97.39 N
ATOM 2858 CA GLN B 436 162.020 170.257 117.264 1.00 97.39 C
ATOM 2859 C GLN B 436 162.000 170.803 115.836 1.00 97.39 C
ATOM 2860 O GLN B 436 161.256 171.726 115.498 1.00 97.39 O
ATOM 2861 CB GLN B 436 161.750 168.754 117.274 1.00 97.39 C
ATOM 2862 CG GLN B 436 162.913 167.904 116.794 1.00 97.39 C

ATOM 2863 CD GLN B 436 162.745 166.441 117.141 1.00 97.39 C
ATOM 2864 OE1 GLN B 436 161.650 165.994 117.475 1.00 97.39 O
ATOM 2865 NE2 GLN B 436 163.833 165.685 117.065 1.00 97.39 N
ATOM 2866 N LYS B 437 162.843 170.217 114.990 1.00103.13 N
ATOM 2867 CA LYS B 437 162.936 170.596 113.588 1.00103.13 C
ATOM 2868 C LYS B 437 161.793 169.943 112.810 1.00103.13 C
ATOM 2869 O LYS B 437 160.850 169.396 113.385 1.00103.13 O
ATOM 2870 CB LYS B 437 164.303 170.215 113.029 1.00103.13 C
ATOM 2871 CG LYS B 437 165.455 171.032 113.589 1.00103.13 C
ATOM 2872 CD LYS B 437 165.765 172.232 112.708 1.00103.13 C
ATOM 2873 CE LYS B 437 166.930 173.038 113.260 1.00103.13 C
ATOM 2874 NZ LYS B 437 168.168 172.223 113.391 1.00103.13 N
ATOM 2875 N SER B 438 161.870 169.992 111.482 1.00106.36 N
ATOM 2876 CA SER B 438 160.802 169.510 110.615 1.00106.36 C
ATOM 2877 C SER B 438 160.957 168.042 110.230 1.00106.36 C
ATOM 2878 O SER B 438 160.191 167.553 109.395 1.00106.36 O
ATOM 2879 CB SER B 438 160.724 170.369 109.351 1.00106.36 C
ATOM 2880 OG SER B 438 159.538 170.101 108.625 1.00106.36 O
ATOM 2881 N LEU B 439 161.923 167.335 110.812 1.00106.82 N
ATOM 2882 CA LEU B 439 162.195 165.920 110.569 1.00106.82 C
ATOM 2883 C LEU B 439 162.771 165.658 109.186 1.00106.82 C
ATOM 2884 O LEU B 439 163.139 164.515 108.891 1.00106.82 O
ATOM 2885 CB LEU B 439 160.948 165.044 110.758 1.00106.82 C
ATOM 2886 CG LEU B 439 161.143 163.538 110.579 1.00106.82 C
ATOM 2887 CD1 LEU B 439 162.136 163.007 111.590 1.00106.82 C
ATOM 2888 CD2 LEU B 439 159.818 162.814 110.708 1.00106.82 C
ATOM 2889 N VAL B 440 162.867 166.669 108.327 1.00110.50 N
ATOM 2890 CA VAL B 440 163.568 166.523 107.059 1.00110.50 C
ATOM 2891 C VAL B 440 165.009 167.006 107.155 1.00110.50 C
ATOM 2892 O VAL B 440 165.848 166.576 106.348 1.00110.50 O
ATOM 2893 CB VAL B 440 162.836 167.268 105.925 1.00110.50 C
ATOM 2894 CG1 VAL B 440 163.580 167.094 104.617 1.00110.50 C
ATOM 2895 CG2 VAL B 440 161.411 166.763 105.799 1.00110.50 C
ATOM 2896 N GLU B 441 165.321 167.879 108.111 1.00113.80 N

ATOM 2897 CA GLU B 441 166.689 168.317 108.340 1.00113.80 C
ATOM 2898 C GLU B 441 167.432 167.432 109.328 1.00113.80 C
ATOM 2899 O GLU B 441 168.667 167.399 109.301 1.00113.80 O
ATOM 2900 CB GLU B 441 166.703 169.762 108.844 1.00113.80 C
ATOM 2901 CG GLU B 441 166.734 170.797 107.736 1.00113.80 C
ATOM 2902 CD GLU B 441 165.407 170.913 107.015 1.00113.80 C
ATOM 2903 OE1 GLU B 441 164.399 171.254 107.670 1.00113.80 O
ATOM 2904 OE2 GLU B 441 165.370 170.663 105.792 1.00113.80 O
ATOM 2905 N LEU B 442 166.715 166.726 110.205 1.00112.51 N
ATOM 2906 CA LEU B 442 167.377 165.813 111.128 1.00112.51 C
ATOM 2907 C LEU B 442 168.209 164.781 110.380 1.00112.51 C
ATOM 2908 O LEU B 442 169.311 164.425 110.813 1.00112.51 O
ATOM 2909 CB LEU B 442 166.341 165.123 112.016 1.00112.51 C
ATOM 2910 CG LEU B 442 166.070 165.782 113.367 1.00112.51 C
ATOM 2911 CD1 LEU B 442 164.830 165.194 114.007 1.00112.51 C
ATOM 2912 CD2 LEU B 442 167.268 165.615 114.279 1.00112.51 C
ATOM 2913 N GLU B 443 167.700 164.290 109.249 1.00116.97 N
ATOM 2914 CA GLU B 443 168.436 163.291 108.481 1.00116.97 C
ATOM 2915 C GLU B 443 169.619 163.913 107.752 1.00116.97 C
ATOM 2916 O GLU B 443 170.685 163.297 107.649 1.00116.97 O
ATOM 2917 CB GLU B 443 167.501 162.596 107.492 1.00116.97 C
ATOM 2918 CG GLU B 443 167.984 161.230 107.034 1.00116.97 C
ATOM 2919 CD GLU B 443 168.892 161.308 105.822 1.00116.97 C
ATOM 2920 OE1 GLU B 443 169.533 160.288 105.489 1.00116.97 O
ATOM 2921 OE2 GLU B 443 168.967 162.387 105.201 1.00116.97 O
ATOM 2922 N ARG B 444 169.453 165.135 107.240 1.00118.60 N
ATOM 2923 CA ARG B 444 170.534 165.788 106.514 1.00118.60 C
ATOM 2924 C ARG B 444 171.602 166.348 107.443 1.00118.60 C
ATOM 2925 O ARG B 444 172.679 166.725 106.972 1.00118.60 O
ATOM 2926 CB ARG B 444 169.977 166.904 105.630 1.00118.60 C
ATOM 2927 CG ARG B 444 170.963 167.426 104.601 1.00118.60 C
ATOM 2928 CD ARG B 444 170.457 168.704 103.962 1.00118.60 C
ATOM 2929 NE ARG B 444 170.364 169.793 104.929 1.00118.60 N
ATOM 2930 CZ ARG B 444 169.787 170.964 104.680 1.00118.60 C

ATOM 2931 NH1 ARG B 444 169.748 171.900 105.619 1.00118.60 N
ATOM 2932 NH2 ARG B 444 169.249 171.200 103.492 1.00118.60 N
ATOM 2933 N LEU B 445 171.327 166.414 108.744 1.00119.46 N
ATOM 2934 CA LEU B 445 172.328 166.851 109.708 1.00119.46 C
ATOM 2935 C LEU B 445 173.177 165.699 110.220 1.00119.46 C
ATOM 2936 O LEU B 445 174.320 165.918 110.638 1.00119.46 O
ATOM 2937 CB LEU B 445 171.655 167.559 110.886 1.00119.46 C
ATOM 2938 CG LEU B 445 172.590 168.219 111.899 1.00119.46 C
ATOM 2939 CD1 LEU B 445 173.732 168.921 111.189 1.00119.46 C
ATOM 2940 CD2 LEU B 445 171.823 169.197 112.770 1.00119.46 C
ATOM 2941 N ALA B 446 172.644 164.482 110.203 1.00120.36 N
ATOM 2942 CA ALA B 446 173.388 163.269 110.534 1.00120.36 C
ATOM 2943 C ALA B 446 173.498 162.460 109.245 1.00120.36 C
ATOM 2944 O ALA B 446 172.583 161.721 108.877 1.00120.36 O
ATOM 2945 CB ALA B 446 172.705 162.481 111.645 1.00120.36 C
ATOM 2946 N ASN B 447 174.629 162.608 108.559 1.00123.06 N
ATOM 2947 CA ASN B 447 174.826 162.000 107.249 1.00123.06 C
ATOM 2948 C ASN B 447 174.590 160.496 107.295 1.00123.06 C
ATOM 2949 O ASN B 447 174.699 159.874 108.357 1.00123.06 O
ATOM 2950 CB ASN B 447 176.233 162.307 106.733 1.00123.06 C
ATOM 2951 CG ASN B 447 176.413 161.937 105.277 1.00123.06 C
ATOM 2952 OD1 ASN B 447 175.499 161.419 104.639 1.00123.06 O
ATOM 2953 ND2 ASN B 447 177.597 162.207 104.740 1.00123.06 N
ATOM 2954 N ARG B 448 174.262 159.906 106.149 1.00119.91 N
ATOM 2955 CA ARG B 448 174.030 158.470 106.051 1.00119.91 C
ATOM 2956 C ARG B 448 174.641 157.907 104.772 1.00119.91 C
ATOM 2957 O ARG B 448 175.857 157.743 104.671 1.00119.91 O
ATOM 2958 CB ARG B 448 172.531 158.159 106.098 1.00119.91 C
ATOM 2959 CG ARG B 448 171.878 158.443 107.439 1.00119.91 C
ATOM 2960 CD ARG B 448 170.381 158.163 107.401 1.00119.91 C
ATOM 2961 NE ARG B 448 170.087 156.741 107.250 1.00119.91 N
ATOM 2962 CZ ARG B 448 168.948 156.169 107.628 1.00119.91 C
ATOM 2963 NH1 ARG B 448 168.766 154.869 107.451 1.00119.91 N
ATOM 2964 NH2 ARG B 448 167.991 156.897 108.187 1.00119.91 N

ATOM 2965 N ASN B 478 155.720 164.860 96.604 1.00127.42 N
ATOM 2966 CA ASN B 478 156.540 164.750 97.804 1.00127.42 C
ATOM 2967 C ASN B 478 155.659 164.642 99.044 1.00127.42 C
ATOM 2968 O ASN B 478 156.060 165.031 100.140 1.00127.42 O
ATOM 2969 CB ASN B 478 157.478 165.953 97.924 1.00127.42 C
ATOM 2970 CG ASN B 478 158.462 166.043 96.774 1.00127.42 C
ATOM 2971 OD1 ASN B 478 158.075 166.276 95.628 1.00127.42 O
ATOM 2972 ND2 ASN B 478 159.743 165.862 97.074 1.00127.42 N
ATOM 2973 N LEU B 479 154.450 164.105 98.860 1.00125.68 N
ATOM 2974 CA LEU B 479 153.481 164.070 99.950 1.00125.68 C
ATOM 2975 C LEU B 479 153.859 163.055 101.023 1.00125.68 C
ATOM 2976 O LEU B 479 153.506 163.241 102.192 1.00125.68 O
ATOM 2977 CB LEU B 479 152.085 163.768 99.401 1.00125.68 C
ATOM 2978 CG LEU B 479 150.900 163.992 100.345 1.00125.68 C
ATOM 2979 CD1 LEU B 479 149.636 164.289 99.554 1.00125.68 C
ATOM 2980 CD2 LEU B 479 150.693 162.795 101.261 1.00125.68 C
ATOM 2981 N VAL B 480 154.566 161.985 100.651 1.00123.21 N
ATOM 2982 CA VAL B 480 154.866 160.918 101.603 1.00123.21 C
ATOM 2983 C VAL B 480 155.588 161.470 102.827 1.00123.21 C
ATOM 2984 O VAL B 480 155.339 161.042 103.964 1.00123.21 O
ATOM 2985 CB VAL B 480 155.680 159.806 100.915 1.00123.21 C
ATOM 2986 CG1 VAL B 480 157.086 160.290 100.594 1.00123.21 C
ATOM 2987 CG2 VAL B 480 155.725 158.563 101.788 1.00123.21 C
ATOM 2988 N TYR B 481 156.505 162.417 102.616 1.00121.29 N
ATOM 2989 CA TYR B 481 157.233 163.004 103.734 1.00121.29 C
ATOM 2990 C TYR B 481 156.270 163.578 104.765 1.00121.29 C
ATOM 2991 O TYR B 481 156.359 163.268 105.958 1.00121.29 O
ATOM 2992 CB TYR B 481 158.188 164.084 103.227 1.00121.29 C
ATOM 2993 CG TYR B 481 159.281 163.565 102.320 1.00121.29 C
ATOM 2994 CD1 TYR B 481 159.043 163.346 100.969 1.00121.29 C
ATOM 2995 CD2 TYR B 481 160.551 163.300 102.812 1.00121.29 C
ATOM 2996 CE1 TYR B 481 160.039 162.875 100.137 1.00121.29 C
ATOM 2997 CE2 TYR B 481 161.553 162.828 101.987 1.00121.29 C
ATOM 2998 CZ TYR B 481 161.292 162.618 100.651 1.00121.29 C

```
ATOM   2999  OH  TYR B 481     162.287 162.149  99.824  1.00121.29           O
ATOM   3000  N   ALA B 482     155.332 164.412 104.315  1.00118.61           N
ATOM   3001  CA  ALA B 482     154.374 165.010 105.239  1.00118.61           C
ATOM   3002  C   ALA B 482     153.445 163.957 105.828  1.00118.61           C
ATOM   3003  O   ALA B 482     153.075 164.034 107.006  1.00118.61           O
ATOM   3004  CB  ALA B 482     153.571 166.099 104.528  1.00118.61           C
ATOM   3005  N   GLN B 483     153.047 162.972 105.023  1.00114.41           N
ATOM   3006  CA  GLN B 483     152.167 161.929 105.530  1.00114.41           C
ATOM   3007  C   GLN B 483     152.798 161.211 106.714  1.00114.41           C
ATOM   3008  O   GLN B 483     152.112 160.886 107.689  1.00114.41           O
ATOM   3009  CB  GLN B 483     151.823 160.938 104.420  1.00114.41           C
ATOM   3010  CG  GLN B 483     150.910 159.810 104.868  1.00114.41           C
ATOM   3011  CD  GLN B 483     149.533 160.300 105.276  1.00114.41           C
ATOM   3012  OE1 GLN B 483     149.053 159.999 106.368  1.00114.41           O
ATOM   3013  NE2 GLN B 483     148.890 161.057 104.396  1.00114.41           N
ATOM   3014  N   LEU B 484     154.107 160.962 106.653  1.00109.34           N
ATOM   3015  CA  LEU B 484     154.758 160.295 107.778  1.00109.34           C
ATOM   3016  C   LEU B 484     155.066 161.263 108.915  1.00109.34           C
ATOM   3017  O   LEU B 484     155.034 160.866 110.089  1.00109.34           O
ATOM   3018  CB  LEU B 484     156.030 159.581 107.315  1.00109.34           C
ATOM   3019  CG  LEU B 484     157.180 160.396 106.732  1.00109.34           C
ATOM   3020  CD1 LEU B 484     158.048 160.946 107.844  1.00109.34           C
ATOM   3021  CD2 LEU B 484     158.000 159.534 105.792  1.00109.34           C
ATOM   3022  N   GLN B 485     155.377 162.520 108.591  1.00105.88           N
ATOM   3023  CA  GLN B 485     155.488 163.550 109.619  1.00105.88           C
ATOM   3024  C   GLN B 485     154.232 163.597 110.478  1.00105.88           C
ATOM   3025  O   GLN B 485     154.299 163.820 111.695  1.00105.88           O
ATOM   3026  CB  GLN B 485     155.739 164.907 108.958  1.00105.88           C
ATOM   3027  CG  GLN B 485     155.762 166.090 109.907  1.00105.88           C
ATOM   3028  CD  GLN B 485     157.066 166.208 110.659  1.00105.88           C
ATOM   3029  OE1 GLN B 485     157.134 165.933 111.855  1.00105.88           O
ATOM   3030  NE2 GLN B 485     158.115 166.623 109.961  1.00105.88           N
ATOM   3031  N   PHE B 486     153.073 163.391 109.852  1.00104.94           N
ATOM   3032  CA  PHE B 486     151.812 163.423 110.585  1.00104.94           C
```

ATOM 3033 C PHE B 486 151.784 162.358 111.675 1.00104.94 C
ATOM 3034 O PHE B 486 151.444 162.642 112.830 1.00104.94 O
ATOM 3035 CB PHE B 486 150.647 163.241 109.613 1.00104.94 C
ATOM 3036 CG PHE B 486 149.297 163.355 110.254 1.00104.94 C
ATOM 3037 CD1 PHE B 486 148.993 164.425 111.074 1.00104.94 C
ATOM 3038 CD2 PHE B 486 148.328 162.395 110.029 1.00104.94 C
ATOM 3039 CE1 PHE B 486 147.750 164.532 111.662 1.00104.94 C
ATOM 3040 CE2 PHE B 486 147.084 162.497 110.613 1.00104.94 C
ATOM 3041 CZ PHE B 486 146.795 163.566 111.430 1.00104.94 C
ATOM 3042 N THR B 487 152.142 161.120 111.327 1.00 98.40 N
ATOM 3043 CA THR B 487 152.152 160.052 112.321 1.00 98.40 C
ATOM 3044 C THR B 487 153.214 160.302 113.383 1.00 98.40 C
ATOM 3045 O THR B 487 152.996 160.024 114.570 1.00 98.40 O
ATOM 3046 CB THR B 487 152.383 158.705 111.643 1.00 98.40 C
ATOM 3047 OG1 THR B 487 153.674 158.698 111.027 1.00 98.40 O
ATOM 3048 CG2 THR B 487 151.327 158.463 110.579 1.00 98.40 C
ATOM 3049 N TYR B 488 154.375 160.812 112.973 1.00 95.81 N
ATOM 3050 CA TYR B 488 155.395 161.195 113.943 1.00 95.81 C
ATOM 3051 C TYR B 488 154.805 162.111 115.010 1.00 95.81 C
ATOM 3052 O TYR B 488 154.921 161.853 116.217 1.00 95.81 O
ATOM 3053 CB TYR B 488 156.558 161.878 113.220 1.00 95.81 C
ATOM 3054 CG TYR B 488 157.684 162.329 114.116 1.00 95.81 C
ATOM 3055 CD1 TYR B 488 157.616 163.536 114.792 1.00 95.81 C
ATOM 3056 CD2 TYR B 488 158.821 161.556 114.274 1.00 95.81 C
ATOM 3057 CE1 TYR B 488 158.644 163.953 115.609 1.00 95.81 C
ATOM 3058 CE2 TYR B 488 159.852 161.967 115.086 1.00 95.81 C
ATOM 3059 CZ TYR B 488 159.760 163.164 115.753 1.00 95.81 C
ATOM 3060 OH TYR B 488 160.789 163.576 116.565 1.00 95.81 O
ATOM 3061 N ASP B 489 154.157 163.190 114.569 1.00 92.33 N
ATOM 3062 CA ASP B 489 153.578 164.147 115.505 1.00 92.33 C
ATOM 3063 C ASP B 489 152.488 163.502 116.354 1.00 92.33 C
ATOM 3064 O ASP B 489 152.396 163.755 117.565 1.00 92.33 O
ATOM 3065 CB ASP B 489 153.024 165.343 114.735 1.00 92.33 C
ATOM 3066 CG ASP B 489 152.845 166.561 115.606 1.00 92.33 C

ATOM 3067 OD1 ASP B 489 153.094 166.459 116.824 1.00 92.33 O
ATOM 3068 OD2 ASP B 489 152.454 167.621 115.072 1.00 92.33 O
ATOM 3069 N THR B 490 151.649 162.668 115.735 1.00 89.11 N
ATOM 3070 CA THR B 490 150.536 162.066 116.460 1.00 89.11 C
ATOM 3071 C THR B 490 151.017 161.099 117.533 1.00 89.11 C
ATOM 3072 O THR B 490 150.312 160.877 118.523 1.00 89.11 O
ATOM 3073 CB THR B 490 149.601 161.353 115.488 1.00 89.11 C
ATOM 3074 OG1 THR B 490 148.866 162.324 114.734 1.00 89.11 O
ATOM 3075 CG2 THR B 490 148.629 160.472 116.243 1.00 89.11 C
ATOM 3076 N LEU B 491 152.202 160.513 117.360 1.00 88.29 N
ATOM 3077 CA LEU B 491 152.755 159.666 118.414 1.00 88.29 C
ATOM 3078 C LEU B 491 153.438 160.492 119.495 1.00 88.29 C
ATOM 3079 O LEU B 491 153.344 160.168 120.691 1.00 88.29 O
ATOM 3080 CB LEU B 491 153.740 158.658 117.828 1.00 88.29 C
ATOM 3081 CG LEU B 491 153.124 157.372 117.292 1.00 88.29 C
ATOM 3082 CD1 LEU B 491 152.454 156.613 118.417 1.00 88.29 C
ATOM 3083 CD2 LEU B 491 152.136 157.699 116.204 1.00 88.29 C
ATOM 3084 N ARG B 492 154.164 161.539 119.092 1.00 87.90 N
ATOM 3085 CA ARG B 492 154.771 162.414 120.086 1.00 87.90 C
ATOM 3086 C ARG B 492 153.715 162.956 121.040 1.00 87.90 C
ATOM 3087 O ARG B 492 153.934 163.018 122.257 1.00 87.90 O
ATOM 3088 CB ARG B 492 155.521 163.554 119.398 1.00 87.90 C
ATOM 3089 CG ARG B 492 156.691 164.093 120.200 1.00 87.90 C
ATOM 3090 CD ARG B 492 157.556 165.026 119.369 1.00 87.90 C
ATOM 3091 NE ARG B 492 156.794 166.146 118.826 1.00 87.90 N
ATOM 3092 CZ ARG B 492 157.241 166.965 117.879 1.00 87.90 C
ATOM 3093 NH1 ARG B 492 156.479 167.959 117.445 1.00 87.90 N
ATOM 3094 NH2 ARG B 492 158.450 166.791 117.365 1.00 87.90 N
ATOM 3095 N GLY B 493 152.555 163.339 120.504 1.00 87.69 N
ATOM 3096 CA GLY B 493 151.489 163.838 121.361 1.00 87.69 C
ATOM 3097 C GLY B 493 151.036 162.819 122.389 1.00 87.69 C
ATOM 3098 O GLY B 493 150.822 163.152 123.558 1.00 87.69 O
ATOM 3099 N TYR B 494 150.883 161.563 121.969 1.00 85.53 N
ATOM 3100 CA TYR B 494 150.446 160.511 122.880 1.00 85.53 C

ATOM 3101 C TYR B 494 151.456 160.303 124.004 1.00 85.53 C
ATOM 3102 O TYR B 494 151.091 160.217 125.190 1.00 85.53 O
ATOM 3103 CB TYR B 494 150.236 159.223 122.084 1.00 85.53 C
ATOM 3104 CG TYR B 494 149.683 158.057 122.859 1.00 85.53 C
ATOM 3105 CD1 TYR B 494 150.487 157.320 123.711 1.00 85.53 C
ATOM 3106 CD2 TYR B 494 148.361 157.672 122.713 1.00 85.53 C
ATOM 3107 CE1 TYR B 494 149.986 156.247 124.411 1.00 85.53 C
ATOM 3108 CE2 TYR B 494 147.853 156.599 123.408 1.00 85.53 C
ATOM 3109 CZ TYR B 494 148.669 155.890 124.256 1.00 85.53 C
ATOM 3110 OH TYR B 494 148.169 154.817 124.954 1.00 85.53 O
ATOM 3111 N ILE B 495 152.738 160.209 123.646 1.00 84.70 N
ATOM 3112 CA ILE B 495 153.759 160.015 124.672 1.00 84.70 C
ATOM 3113 C ILE B 495 153.764 161.187 125.645 1.00 84.70 C
ATOM 3114 O ILE B 495 153.891 161.003 126.864 1.00 84.70 O
ATOM 3115 CB ILE B 495 155.141 159.805 124.033 1.00 84.70 C
ATOM 3116 CG1 ILE B 495 155.114 158.606 123.089 1.00 84.70 C
ATOM 3117 CG2 ILE B 495 156.184 159.590 125.106 1.00 84.70 C
ATOM 3118 CD1 ILE B 495 156.466 158.256 122.529 1.00 84.70 C
ATOM 3119 N ASN B 496 153.627 162.409 125.124 1.00 85.94 N
ATOM 3120 CA ASN B 496 153.584 163.575 125.999 1.00 85.94 C
ATOM 3121 C ASN B 496 152.399 163.505 126.949 1.00 85.94 C
ATOM 3122 O ASN B 496 152.520 163.839 128.133 1.00 85.94 O
ATOM 3123 CB ASN B 496 153.529 164.852 125.166 1.00 85.94 C
ATOM 3124 CG ASN B 496 154.898 165.352 124.786 1.00 85.94 C
ATOM 3125 OD1 ASN B 496 155.907 164.711 125.074 1.00 85.94 O
ATOM 3126 ND2 ASN B 496 154.946 166.506 124.134 1.00 85.94 N
ATOM 3127 N ARG B 497 151.238 163.090 126.445 1.00 89.05 N
ATOM 3128 CA ARG B 497 150.068 162.952 127.304 1.00 89.05 C
ATOM 3129 C ARG B 497 150.356 162.012 128.468 1.00 89.05 C
ATOM 3130 O ARG B 497 150.069 162.330 129.629 1.00 89.05 O
ATOM 3131 CB ARG B 497 148.878 162.451 126.489 1.00 89.05 C
ATOM 3132 CG ARG B 497 147.574 162.419 127.259 1.00 89.05 C
ATOM 3133 CD ARG B 497 147.106 163.822 127.604 1.00 89.05 C
ATOM 3134 NE ARG B 497 146.973 164.014 129.045 1.00 89.05 N

ATOM 3135 CZ ARG B 497 146.519 165.125 129.613 1.00 89.05 C
ATOM 3136 NH1 ARG B 497 146.434 165.210 130.933 1.00 89.05 N
ATOM 3137 NH2 ARG B 497 146.148 166.153 128.861 1.00 89.05 N
ATOM 3138 N ALA B 498 150.924 160.842 128.174 1.00 87.15 N
ATOM 3139 CA ALA B 498 151.203 159.890 129.250 1.00 87.15 C
ATOM 3140 C ALA B 498 152.197 160.463 130.258 1.00 87.15 C
ATOM 3141 O ALA B 498 152.007 160.341 131.483 1.00 87.15 O
ATOM 3142 CB ALA B 498 151.724 158.578 128.670 1.00 87.15 C
ATOM 3143 N LEU B 499 153.273 161.079 129.763 1.00 85.86 N
ATOM 3144 CA LEU B 499 154.274 161.633 130.666 1.00 85.86 C
ATOM 3145 C LEU B 499 153.688 162.725 131.545 1.00 85.86 C
ATOM 3146 O LEU B 499 154.092 162.873 132.703 1.00 85.86 O
ATOM 3147 CB LEU B 499 155.465 162.170 129.875 1.00 85.86 C
ATOM 3148 CG LEU B 499 156.438 161.119 129.348 1.00 85.86 C
ATOM 3149 CD1 LEU B 499 157.729 161.770 128.887 1.00 85.86 C
ATOM 3150 CD2 LEU B 499 156.709 160.073 130.411 1.00 85.86 C
ATOM 3151 N ALA B 500 152.744 163.503 131.019 1.00 85.86 N
ATOM 3152 CA ALA B 500 152.120 164.540 131.830 1.00 85.86 C
ATOM 3153 C ALA B 500 151.117 163.963 132.815 1.00 85.86 C
ATOM 3154 O ALA B 500 150.860 164.572 133.857 1.00 85.86 O
ATOM 3155 CB ALA B 500 151.436 165.576 130.938 1.00 85.86 C
ATOM 3156 N GLN B 501 150.537 162.802 132.508 1.00 88.74 N
ATOM 3157 CA GLN B 501 149.589 162.197 133.435 1.00 88.74 C
ATOM 3158 C GLN B 501 150.266 161.455 134.580 1.00 88.74 C
ATOM 3159 O GLN B 501 149.619 161.207 135.602 1.00 88.74 O
ATOM 3160 CB GLN B 501 148.658 161.237 132.697 1.00 88.74 C
ATOM 3161 CG GLN B 501 147.413 160.868 133.481 1.00 88.74 C
ATOM 3162 CD GLN B 501 146.367 160.190 132.622 1.00 88.74 C
ATOM 3163 OE1 GLN B 501 146.691 159.501 131.656 1.00 88.74 O
ATOM 3164 NE2 GLN B 501 145.101 160.384 132.969 1.00 88.74 N
ATOM 3165 N ILE B 502 151.539 161.080 134.433 1.00 87.40 N
ATOM 3166 CA ILE B 502 152.212 160.403 135.549 1.00 87.40 C
ATOM 3167 C ILE B 502 152.520 161.369 136.702 1.00 87.40 C
ATOM 3168 O ILE B 502 152.537 160.970 137.881 1.00 87.40 O

ATOM 3169 CB ILE B 502 153.491 159.704 135.057 1.00 87.40 C
ATOM 3170 CG1 ILE B 502 153.141 158.563 134.103 1.00 87.40 C
ATOM 3171 CG2 ILE B 502 154.290 159.181 136.230 1.00 87.40 C
ATOM 3172 CD1 ILE B 502 152.096 157.623 134.642 1.00 87.40 C
ATOM 3173 N ALA B 503 152.769 162.644 136.391 1.00 88.25 N
ATOM 3174 CA ALA B 503 153.170 163.595 137.424 1.00 88.25 C
ATOM 3175 C ALA B 503 152.070 163.821 138.453 1.00 88.25 C
ATOM 3176 O ALA B 503 152.364 164.061 139.628 1.00 88.25 O
ATOM 3177 CB ALA B 503 153.577 164.920 136.785 1.00 88.25 C
ATOM 3178 N GLU B 504 150.803 163.769 138.037 1.00 95.24 N
ATOM 3179 CA GLU B 504 149.706 163.898 138.991 1.00 95.24 C
ATOM 3180 C GLU B 504 149.808 162.842 140.083 1.00 95.24 C
ATOM 3181 O GLU B 504 149.747 163.154 141.281 1.00 95.24 O
ATOM 3182 CB GLU B 504 148.367 163.776 138.270 1.00 95.24 C
ATOM 3183 CG GLU B 504 147.858 165.048 137.634 1.00 95.24 C
ATOM 3184 CD GLU B 504 146.479 164.864 137.032 1.00 95.24 C
ATOM 3185 OE1 GLU B 504 145.930 163.747 137.132 1.00 95.24 O
ATOM 3186 OE2 GLU B 504 145.940 165.831 136.459 1.00 95.24 O
ATOM 3187 N ALA B 505 149.920 161.575 139.682 1.00 88.53 N
ATOM 3188 CA ALA B 505 150.047 160.501 140.656 1.00 88.53 C
ATOM 3189 C ALA B 505 151.272 160.700 141.529 1.00 88.53 C
ATOM 3190 O ALA B 505 151.220 160.482 142.745 1.00 88.53 O
ATOM 3191 CB ALA B 505 150.109 159.149 139.949 1.00 88.53 C
ATOM 3192 N TRP B 506 152.381 161.139 140.947 1.00 91.43 N
ATOM 3193 CA TRP B 506 153.597 161.345 141.739 1.00 91.43 C
ATOM 3194 C TRP B 506 153.488 162.456 142.747 1.00 91.43 C
ATOM 3195 O TRP B 506 154.160 162.447 143.748 1.00 91.43 O
ATOM 3196 CB TRP B 506 154.831 161.547 140.887 1.00 91.43 C
ATOM 3197 CG TRP B 506 155.938 160.721 141.387 1.00 91.43 C
ATOM 3198 CD1 TRP B 506 156.409 160.682 142.654 1.00 91.43 C
ATOM 3199 CD2 TRP B 506 156.700 159.779 140.647 1.00 91.43 C
ATOM 3200 NE1 TRP B 506 157.429 159.780 142.753 1.00 91.43 N
ATOM 3201 CE2 TRP B 506 157.625 159.210 141.527 1.00 91.43 C
ATOM 3202 CE3 TRP B 506 156.695 159.364 139.320 1.00 91.43 C

ATOM 3203 CZ2 TRP B 506 158.535 158.258 141.126 1.00 91.43 C
ATOM 3204 CZ3 TRP B 506 157.591 158.418 138.926 1.00 91.43 C
ATOM 3205 CH2 TRP B 506 158.503 157.876 139.819 1.00 91.43 C
ATOM 3206 N CYS B 507 152.694 163.457 142.447 1.00 89.72 N
ATOM 3207 CA CYS B 507 152.433 164.521 143.414 1.00 89.72 C
ATOM 3208 C CYS B 507 151.521 164.031 144.532 1.00 89.72 C
ATOM 3209 O CYS B 507 151.793 164.254 145.720 1.00 89.72 O
ATOM 3210 CB CYS B 507 151.821 165.728 142.704 1.00 89.72 C
ATOM 3211 SG CYS B 507 151.533 167.175 143.747 1.00 89.72 S
ATOM 3212 N VAL B 508 150.420 163.371 144.168 1.00 85.32 N
ATOM 3213 CA VAL B 508 149.521 162.838 145.190 1.00 85.32 C
ATOM 3214 C VAL B 508 150.260 161.864 146.091 1.00 85.32 C
ATOM 3215 O VAL B 508 149.901 161.691 147.261 1.00 85.32 O
ATOM 3216 CB VAL B 508 148.291 162.177 144.544 1.00 85.32 C
ATOM 3217 CG1 VAL B 508 147.641 161.215 145.521 1.00 85.32 C
ATOM 3218 CG2 VAL B 508 147.303 163.235 144.097 1.00 85.32 C
ATOM 3219 N ASP B 509 151.298 161.209 145.570 1.00 88.12 N
ATOM 3220 CA ASP B 509 152.119 160.341 146.404 1.00 88.12 C
ATOM 3221 C ASP B 509 152.961 161.153 147.378 1.00 88.12 C
ATOM 3222 O ASP B 509 152.891 160.954 148.595 1.00 88.12 O
ATOM 3223 CB ASP B 509 153.013 159.463 145.532 1.00 88.12 C
ATOM 3224 CG ASP B 509 154.060 158.727 146.336 1.00 88.12 C
ATOM 3225 OD1 ASP B 509 153.770 157.609 146.810 1.00 88.12 O
ATOM 3226 OD2 ASP B 509 155.172 159.271 146.500 1.00 88.12 O
ATOM 3227 N GLN B 510 153.767 162.081 146.860 1.00 87.06 N
ATOM 3228 CA GLN B 510 154.581 162.909 147.744 1.00 87.06 C
ATOM 3229 C GLN B 510 153.754 163.682 148.760 1.00 87.06 C
ATOM 3230 O GLN B 510 154.327 164.250 149.693 1.00 87.06 O
ATOM 3231 CB GLN B 510 155.423 163.897 146.940 1.00 87.06 C
ATOM 3232 CG GLN B 510 156.700 163.317 146.374 1.00 87.06 C
ATOM 3233 CD GLN B 510 157.568 164.373 145.728 1.00 87.06 C
ATOM 3234 OE1 GLN B 510 157.209 165.551 145.697 1.00 87.06 O
ATOM 3235 NE2 GLN B 510 158.719 163.963 145.212 1.00 87.06 N
ATOM 3236 N ARG B 511 152.432 163.733 148.597 1.00 81.00 N

ATOM 3237 CA ARG B 511 151.614 164.470 149.556 1.00 81.00 C
ATOM 3238 C ARG B 511 151.508 163.753 150.901 1.00 81.00 C
ATOM 3239 O ARG B 511 151.314 164.401 151.935 1.00 81.00 O
ATOM 3240 CB ARG B 511 150.226 164.714 148.974 1.00 81.00 C
ATOM 3241 CG ARG B 511 149.238 165.315 149.947 1.00 81.00 C
ATOM 3242 CD ARG B 511 148.042 165.863 149.198 1.00 81.00 C
ATOM 3243 NE ARG B 511 146.835 165.892 150.016 1.00 81.00 N
ATOM 3244 CZ ARG B 511 145.627 166.183 149.545 1.00 81.00 C
ATOM 3245 NH1 ARG B 511 145.467 166.470 148.260 1.00 81.00 N
ATOM 3246 NH2 ARG B 511 144.579 166.190 150.357 1.00 81.00 N
ATOM 3247 N ARG B 512 151.616 162.420 150.918 1.00 72.66 N
ATOM 3248 CA ARG B 512 151.470 161.677 152.170 1.00 72.66 C
ATOM 3249 C ARG B 512 152.739 161.684 153.014 1.00 72.66 C
ATOM 3250 O ARG B 512 152.662 161.517 154.243 1.00 72.66 O
ATOM 3251 CB ARG B 512 151.069 160.232 151.886 1.00 72.66 C
ATOM 3252 CG ARG B 512 149.766 160.077 151.136 1.00 72.66 C
ATOM 3253 CD ARG B 512 149.470 158.613 150.870 1.00 72.66 C
ATOM 3254 NE ARG B 512 148.474 158.437 149.818 1.00 72.66 N
ATOM 3255 CZ ARG B 512 147.167 158.607 149.989 1.00 72.66 C
ATOM 3256 NH1 ARG B 512 146.692 158.959 151.175 1.00 72.66 N
ATOM 3257 NH2 ARG B 512 146.336 158.426 148.973 1.00 72.66 N
ATOM 3258 N THR B 513 153.899 161.850 152.382 1.00 65.37 N
ATOM 3259 CA THR B 513 155.146 161.877 153.131 1.00 65.37 C
ATOM 3260 C THR B 513 155.143 162.978 154.178 1.00 65.37 C
ATOM 3261 O THR B 513 155.827 162.860 155.197 1.00 65.37 O
ATOM 3262 CB THR B 513 156.327 162.049 152.180 1.00 65.37 C
ATOM 3263 OG1 THR B 513 156.534 160.831 151.455 1.00 65.37 O
ATOM 3264 CG2 THR B 513 157.585 162.390 152.950 1.00 65.37 C
ATOM 3265 N LEU B 514 154.357 164.035 153.975 1.00 64.70 N
ATOM 3266 CA LEU B 514 154.334 165.110 154.962 1.00 64.70 C
ATOM 3267 C LEU B 514 153.623 164.677 156.238 1.00 64.70 C
ATOM 3268 O LEU B 514 154.122 164.923 157.342 1.00 64.70 O
ATOM 3269 CB LEU B 514 153.682 166.357 154.373 1.00 64.70 C
ATOM 3270 CG LEU B 514 154.556 167.108 153.369 1.00 64.70 C

ATOM 3271 CD1 LEU B 514 153.977 168.481 153.076 1.00 64.70 C
ATOM 3272 CD2 LEU B 514 155.985 167.217 153.873 1.00 64.70 C
ATOM 3273 N GLU B 515 152.461 164.032 156.118 1.00 56.89 N
ATOM 3274 CA GLU B 515 151.806 163.501 157.310 1.00 56.89 C
ATOM 3275 C GLU B 515 152.680 162.459 157.992 1.00 56.89 C
ATOM 3276 O GLU B 515 152.781 162.425 159.229 1.00 56.89 O
ATOM 3277 CB GLU B 515 150.448 162.908 156.944 1.00 56.89 C
ATOM 3278 CG GLU B 515 149.834 162.036 158.032 1.00 56.89 C
ATOM 3279 CD GLU B 515 149.352 162.834 159.232 1.00 56.89 C
ATOM 3280 OE1 GLU B 515 149.625 162.415 160.376 1.00 56.89 O
ATOM 3281 OE2 GLU B 515 148.696 163.876 159.033 1.00 56.89 O
ATOM 3282 N VAL B 516 153.324 161.598 157.201 1.00 54.06 N
ATOM 3283 CA VAL B 516 154.202 160.590 157.788 1.00 54.06 C
ATOM 3284 C VAL B 516 155.315 161.255 158.589 1.00 54.06 C
ATOM 3285 O VAL B 516 155.586 160.882 159.737 1.00 54.06 O
ATOM 3286 CB VAL B 516 154.764 159.660 156.701 1.00 54.06 C
ATOM 3287 CG1 VAL B 516 155.965 158.913 157.227 1.00 54.06 C
ATOM 3288 CG2 VAL B 516 153.702 158.683 156.250 1.00 54.06 C
ATOM 3289 N PHE B 517 155.978 162.253 157.998 1.00 52.95 N
ATOM 3290 CA PHE B 517 157.078 162.915 158.688 1.00 52.95 C
ATOM 3291 C PHE B 517 156.607 163.710 159.892 1.00 52.95 C
ATOM 3292 O PHE B 517 157.352 163.840 160.859 1.00 52.95 O
ATOM 3293 CB PHE B 517 157.856 163.823 157.741 1.00 52.95 C
ATOM 3294 CG PHE B 517 158.825 163.092 156.865 1.00 52.95 C
ATOM 3295 CD1 PHE B 517 159.143 161.772 157.117 1.00 52.95 C
ATOM 3296 CD2 PHE B 517 159.445 163.734 155.812 1.00 52.95 C
ATOM 3297 CE1 PHE B 517 160.042 161.099 156.320 1.00 52.95 C
ATOM 3298 CE2 PHE B 517 160.346 163.065 155.014 1.00 52.95 C
ATOM 3299 CZ PHE B 517 160.644 161.745 155.269 1.00 52.95 C
ATOM 3300 N LYS B 518 155.388 164.242 159.873 1.00 52.81 N
ATOM 3301 CA LYS B 518 154.876 164.895 161.072 1.00 52.81 C
ATOM 3302 C LYS B 518 154.743 163.892 162.213 1.00 52.81 C
ATOM 3303 O LYS B 518 155.339 164.055 163.294 1.00 52.81 O
ATOM 3304 CB LYS B 518 153.535 165.559 160.773 1.00 52.81 C

ATOM 3305 CG LYS B 518 152.950 166.305 161.950 1.00 52.81 C
ATOM 3306 CD LYS B 518 151.601 166.891 161.605 1.00 52.81 C
ATOM 3307 CE LYS B 518 151.614 167.499 160.220 1.00 52.81 C
ATOM 3308 NZ LYS B 518 150.321 168.160 159.897 1.00 52.81 N
ATOM 3309 N GLU B 519 153.968 162.831 161.981 1.00 52.29 N
ATOM 3310 CA GLU B 519 153.797 161.821 163.018 1.00 52.29 C
ATOM 3311 C GLU B 519 155.140 161.304 163.516 1.00 52.29 C
ATOM 3312 O GLU B 519 155.312 161.059 164.713 1.00 52.29 O
ATOM 3313 CB GLU B 519 152.934 160.674 162.501 1.00 52.29 C
ATOM 3314 CG GLU B 519 151.506 161.080 162.214 1.00 52.29 C
ATOM 3315 CD GLU B 519 150.875 161.820 163.371 1.00 52.29 C
ATOM 3316 OE1 GLU B 519 151.403 161.723 164.497 1.00 52.29 O
ATOM 3317 OE2 GLU B 519 149.853 162.502 163.155 1.00 52.29 O
ATOM 3318 N LEU B 520 156.110 161.137 162.613 1.00 47.03 N
ATOM 3319 CA LEU B 520 157.427 160.678 163.043 1.00 47.03 C
ATOM 3320 C LEU B 520 158.173 161.747 163.831 1.00 47.03 C
ATOM 3321 O LEU B 520 158.906 161.420 164.769 1.00 47.03 O
ATOM 3322 CB LEU B 520 158.260 160.244 161.839 1.00 47.03 C
ATOM 3323 CG LEU B 520 157.886 158.925 161.170 1.00 47.03 C
ATOM 3324 CD1 LEU B 520 158.976 158.509 160.209 1.00 47.03 C
ATOM 3325 CD2 LEU B 520 157.656 157.855 162.209 1.00 47.03 C
ATOM 3326 N SER B 521 158.011 163.020 163.468 1.00 47.73 N
ATOM 3327 CA SER B 521 158.636 164.095 164.220 1.00 47.73 C
ATOM 3328 C SER B 521 158.092 164.172 165.627 1.00 47.73 C
ATOM 3329 O SER B 521 158.716 164.797 166.488 1.00 47.73 O
ATOM 3330 CB SER B 521 158.427 165.434 163.522 1.00 47.73 C
ATOM 3331 OG SER B 521 157.151 165.960 163.832 1.00 47.73 O
ATOM 3332 N LYS B 522 156.946 163.571 165.877 1.00 49.54 N
ATOM 3333 CA LYS B 522 156.658 163.484 167.311 1.00 49.54 C
ATOM 3334 C LYS B 522 157.529 162.439 168.044 1.00 49.54 C
ATOM 3335 O LYS B 522 157.203 162.124 169.186 1.00 49.54 O
ATOM 3336 CB LYS B 522 155.181 163.178 167.553 1.00 49.54 C
ATOM 3337 CG LYS B 522 154.269 164.368 167.346 1.00 49.54 C
ATOM 3338 CD LYS B 522 152.813 163.953 167.366 1.00 49.54 C

ATOM 3339 CE LYS B 522 151.929 165.039 166.782 1.00 49.54 C
ATOM 3340 NZ LYS B 522 150.544 164.552 166.542 1.00 49.54 N
ATOM 3341 N ILE B 523 158.595 161.882 167.464 1.00 48.18 N
ATOM 3342 CA ILE B 523 159.452 160.922 168.146 1.00 48.18 C
ATOM 3343 C ILE B 523 160.859 161.465 168.359 1.00 48.18 C
ATOM 3344 O ILE B 523 161.449 161.268 169.425 1.00 48.18 O
ATOM 3345 CB ILE B 523 159.512 159.583 167.383 1.00 48.18 C
ATOM 3346 CG1 ILE B 523 158.196 158.825 167.513 1.00 48.18 C
ATOM 3347 CG2 ILE B 523 160.653 158.738 167.897 1.00 48.18 C
ATOM 3348 CD1 ILE B 523 158.192 157.512 166.777 1.00 48.18 C
ATOM 3349 N ASN B 524 161.424 162.133 167.357 1.00 48.28 N
ATOM 3350 CA ASN B 524 162.778 162.664 167.440 1.00 48.28 C
ATOM 3351 C ASN B 524 162.961 163.775 166.413 1.00 48.28 C
ATOM 3352 O ASN B 524 163.384 163.506 165.283 1.00 48.28 O
ATOM 3353 CB ASN B 524 163.803 161.553 167.218 1.00 48.28 C
ATOM 3354 CG ASN B 524 165.158 161.889 167.793 1.00 48.28 C
ATOM 3355 OD1 ASN B 524 165.288 162.791 168.618 1.00 48.28 O
ATOM 3356 ND2 ASN B 524 166.180 161.163 167.362 1.00 48.28 N
ATOM 3357 N PRO B 525 162.656 165.027 166.758 1.00 43.70 N
ATOM 3358 CA PRO B 525 162.698 166.090 165.740 1.00 43.70 C
ATOM 3359 C PRO B 525 164.075 166.311 165.138 1.00 43.70 C
ATOM 3360 O PRO B 525 164.185 166.598 163.938 1.00 43.70 O
ATOM 3361 CB PRO B 525 162.214 167.326 166.511 1.00 43.70 C
ATOM 3362 CG PRO B 525 161.524 166.790 167.721 1.00 43.70 C
ATOM 3363 CD PRO B 525 162.237 165.535 168.072 1.00 43.70 C
ATOM 3364 N SER B 526 165.133 166.203 165.942 1.00 44.51 N
ATOM 3365 CA SER B 526 166.477 166.443 165.430 1.00 44.51 C
ATOM 3366 C SER B 526 166.779 165.547 164.238 1.00 44.51 C
ATOM 3367 O SER B 526 167.306 166.006 163.220 1.00 44.51 O
ATOM 3368 CB SER B 526 167.508 166.227 166.535 1.00 44.51 C
ATOM 3369 OG SER B 526 167.128 166.889 167.726 1.00 44.51 O
ATOM 3370 N ALA B 527 166.442 164.262 164.342 1.00 46.43 N
ATOM 3371 CA ALA B 527 166.759 163.327 163.269 1.00 46.43 C
ATOM 3372 C ALA B 527 165.988 163.662 161.998 1.00 46.43 C

ATOM 3373 O ALA B 527 166.563 163.697 160.905 1.00 46.43 O
ATOM 3374 CB ALA B 527 166.465 161.898 163.717 1.00 46.43 C
ATOM 3375 N ILE B 528 164.685 163.915 162.120 1.00 45.98 N
ATOM 3376 CA ILE B 528 163.874 164.210 160.942 1.00 45.98 C
ATOM 3377 C ILE B 528 164.371 165.469 160.246 1.00 45.98 C
ATOM 3378 O ILE B 528 164.473 165.520 159.011 1.00 45.98 O
ATOM 3379 CB ILE B 528 162.392 164.330 161.334 1.00 45.98 C
ATOM 3380 CG1 ILE B 528 161.864 162.985 161.818 1.00 45.98 C
ATOM 3381 CG2 ILE B 528 161.579 164.827 160.164 1.00 45.98 C
ATOM 3382 CD1 ILE B 528 162.095 161.865 160.845 1.00 45.98 C
ATOM 3383 N LEU B 529 164.680 166.512 161.017 1.00 46.68 N
ATOM 3384 CA LEU B 529 165.133 167.747 160.389 1.00 46.68 C
ATOM 3385 C LEU B 529 166.512 167.576 159.763 1.00 46.68 C
ATOM 3386 O LEU B 529 166.754 168.052 158.649 1.00 46.68 O
ATOM 3387 CB LEU B 529 165.125 168.887 161.401 1.00 46.68 C
ATOM 3388 CG LEU B 529 163.725 169.410 161.715 1.00 46.68 C
ATOM 3389 CD1 LEU B 529 163.793 170.736 162.441 1.00 46.68 C
ATOM 3390 CD2 LEU B 529 162.922 169.540 160.442 1.00 46.68 C
ATOM 3391 N SER B 530 167.431 166.897 160.452 1.00 48.59 N
ATOM 3392 CA SER B 530 168.726 166.622 159.843 1.00 48.59 C
ATOM 3393 C SER B 530 168.576 165.789 158.581 1.00 48.59 C
ATOM 3394 O SER B 530 169.423 165.863 157.685 1.00 48.59 O
ATOM 3395 CB SER B 530 169.637 165.910 160.839 1.00 48.59 C
ATOM 3396 OG SER B 530 169.665 166.590 162.078 1.00 48.59 O
ATOM 3397 N ALA B 531 167.515 164.989 158.493 1.00 49.89 N
ATOM 3398 CA ALA B 531 167.311 164.164 157.310 1.00 49.89 C
ATOM 3399 C ALA B 531 166.770 164.976 156.142 1.00 49.89 C
ATOM 3400 O ALA B 531 167.185 164.767 154.998 1.00 49.89 O
ATOM 3401 CB ALA B 531 166.368 163.006 157.630 1.00 49.89 C
ATOM 3402 N ILE B 532 165.844 165.897 156.399 1.00 49.61 N
ATOM 3403 CA ILE B 532 165.249 166.640 155.291 1.00 49.61 C
ATOM 3404 C ILE B 532 166.007 167.939 155.046 1.00 49.61 C
ATOM 3405 O ILE B 532 165.592 168.761 154.225 1.00 49.61 O
ATOM 3406 CB ILE B 532 163.754 166.925 155.522 1.00 49.61 C

ATOM 3407 CG1 ILE B 532 163.553 167.898 156.676 1.00 49.61 C
ATOM 3408 CG2 ILE B 532 163.008 165.639 155.801 1.00 49.61 C
ATOM 3409 CD1 ILE B 532 162.134 168.392 156.789 1.00 49.61 C
ATOM 3410 N TYR B 533 167.123 168.137 155.751 1.00 56.43 N
ATOM 3411 CA TYR B 533 167.987 169.285 155.499 1.00 56.43 C
ATOM 3412 C TYR B 533 169.439 168.927 155.227 1.00 56.43 C
ATOM 3413 O TYR B 533 170.213 169.824 154.881 1.00 56.43 O
ATOM 3414 CB TYR B 533 167.945 170.269 156.678 1.00 56.43 C
ATOM 3415 CG TYR B 533 166.767 171.210 156.659 1.00 56.43 C
ATOM 3416 CD1 TYR B 533 165.970 171.329 155.534 1.00 56.43 C
ATOM 3417 CD2 TYR B 533 166.452 171.980 157.766 1.00 56.43 C
ATOM 3418 CE1 TYR B 533 164.891 172.188 155.513 1.00 56.43 C
ATOM 3419 CE2 TYR B 533 165.377 172.841 157.754 1.00 56.43 C
ATOM 3420 CZ TYR B 533 164.600 172.941 156.626 1.00 56.43 C
ATOM 3421 OH TYR B 533 163.526 173.798 156.608 1.00 56.43 O
ATOM 3422 N ASN B 534 169.836 167.667 155.378 1.00 59.26 N
ATOM 3423 CA ASN B 534 171.205 167.225 155.115 1.00 59.26 C
ATOM 3424 C ASN B 534 172.216 168.107 155.852 1.00 59.26 C
ATOM 3425 O ASN B 534 173.040 168.800 155.258 1.00 59.26 O
ATOM 3426 CB ASN B 534 171.484 167.205 153.610 1.00 59.26 C
ATOM 3427 CG ASN B 534 170.975 165.947 152.943 1.00 59.26 C
ATOM 3428 OD1 ASN B 534 170.234 166.006 151.963 1.00 59.26 O
ATOM 3429 ND2 ASN B 534 171.370 164.796 153.471 1.00 59.26 N
ATOM 3430 N LYS B 535 172.128 168.060 157.173 1.00 59.00 N
ATOM 3431 CA LYS B 535 172.971 168.880 158.029 1.00 59.00 C
ATOM 3432 C LYS B 535 172.736 168.461 159.476 1.00 59.00 C
ATOM 3433 O LYS B 535 171.721 167.831 159.779 1.00 59.00 O
ATOM 3434 CB LYS B 535 172.659 170.374 157.846 1.00 59.00 C
ATOM 3435 CG LYS B 535 173.822 171.306 158.102 1.00 59.00 C
ATOM 3436 CD LYS B 535 173.373 172.751 157.994 1.00 59.00 C
ATOM 3437 CE LYS B 535 172.462 172.948 156.795 1.00 59.00 C
ATOM 3438 NZ LYS B 535 172.081 174.374 156.616 1.00 59.00 N
ATOM 3439 N PRO B 536 173.662 168.788 160.376 1.00 56.09 N
ATOM 3440 CA PRO B 536 173.419 168.549 161.803 1.00 56.09 C

ATOM 3441 C PRO B 536 172.629 169.681 162.437 1.00 56.09 C
ATOM 3442 O PRO B 536 173.021 170.846 162.342 1.00 56.09 O
ATOM 3443 CB PRO B 536 174.833 168.459 162.382 1.00 56.09 C
ATOM 3444 CG PRO B 536 175.622 169.366 161.515 1.00 56.09 C
ATOM 3445 CD PRO B 536 175.040 169.245 160.127 1.00 56.09 C
ATOM 3446 N ILE B 537 171.516 169.349 163.092 1.00 49.90 N
ATOM 3447 CA ILE B 537 170.600 170.341 163.635 1.00 49.90 C
ATOM 3448 C ILE B 537 170.103 169.867 164.993 1.00 49.90 C
ATOM 3449 O ILE B 537 170.123 168.676 165.306 1.00 49.90 O
ATOM 3450 CB ILE B 537 169.419 170.600 162.675 1.00 49.90 C
ATOM 3451 CG1 ILE B 537 169.893 171.392 161.463 1.00 49.90 C
ATOM 3452 CG2 ILE B 537 168.306 171.345 163.364 1.00 49.90 C
ATOM 3453 CD1 ILE B 537 168.782 171.787 160.534 1.00 49.90 C
ATOM 3454 N ALA B 538 169.659 170.824 165.806 1.00 46.53 N
ATOM 3455 CA ALA B 538 169.132 170.547 167.139 1.00 46.53 C
ATOM 3456 C ALA B 538 167.822 171.300 167.294 1.00 46.53 C
ATOM 3457 O ALA B 538 167.824 172.530 167.384 1.00 46.53 O
ATOM 3458 CB ALA B 538 170.123 170.956 168.224 1.00 46.53 C
ATOM 3459 N ALA B 539 166.712 170.572 167.333 1.00 41.43 N
ATOM 3460 CA ALA B 539 165.383 171.157 167.414 1.00 41.43 C
ATOM 3461 C ALA B 539 164.722 170.798 168.739 1.00 41.43 C
ATOM 3462 O ALA B 539 165.237 170.003 169.525 1.00 41.43 O
ATOM 3463 CB ALA B 539 164.517 170.690 166.241 1.00 41.43 C
ATOM 3464 N ARG B 540 163.561 171.402 168.979 1.00 42.05 N
ATOM 3465 CA ARG B 540 162.810 171.175 170.206 1.00 42.05 C
ATOM 3466 C ARG B 540 161.446 171.829 170.070 1.00 42.05 C
ATOM 3467 O ARG B 540 161.307 172.859 169.408 1.00 42.05 O
ATOM 3468 CB ARG B 540 163.550 171.733 171.425 1.00 42.05 C
ATOM 3469 CG ARG B 540 162.732 171.731 172.698 1.00 42.05 C
ATOM 3470 CD ARG B 540 163.569 172.138 173.894 1.00 42.05 C
ATOM 3471 NE ARG B 540 163.670 173.587 174.029 1.00 42.05 N
ATOM 3472 CZ ARG B 540 162.705 174.361 174.510 1.00 42.05 C
ATOM 3473 NH1 ARG B 540 162.882 175.669 174.600 1.00 42.05 N
ATOM 3474 NH2 ARG B 540 161.557 173.827 174.896 1.00 42.05 N

ATOM 3475 N PHE B 541 160.444 171.226 170.705 1.00 41.43 N
ATOM 3476 CA PHE B 541 159.082 171.733 170.629 1.00 41.43 C
ATOM 3477 C PHE B 541 158.878 172.907 171.576 1.00 41.43 C
ATOM 3478 O PHE B 541 159.382 172.912 172.701 1.00 41.43 O
ATOM 3479 CB PHE B 541 158.078 170.632 170.957 1.00 41.43 C
ATOM 3480 CG PHE B 541 157.697 169.787 169.782 1.00 41.43 C
ATOM 3481 CD1 PHE B 541 156.722 170.209 168.904 1.00 41.43 C
ATOM 3482 CD2 PHE B 541 158.305 168.569 169.562 1.00 41.43 C
ATOM 3483 CE1 PHE B 541 156.366 169.438 167.827 1.00 41.43 C
ATOM 3484 CE2 PHE B 541 157.952 167.793 168.487 1.00 41.43 C
ATOM 3485 CZ PHE B 541 156.981 168.229 167.618 1.00 41.43 C
ATOM 3486 N MET B 542 158.123 173.898 171.112 1.00 39.59 N
ATOM 3487 CA MET B 542 157.805 175.079 171.903 1.00 39.59 C
ATOM 3488 C MET B 542 156.297 175.218 172.052 1.00 39.59 C
ATOM 3489 O MET B 542 155.739 176.294 171.824 1.00 39.59 O
ATOM 3490 CB MET B 542 158.409 176.330 171.271 1.00 39.59 C
ATOM 3491 CG MET B 542 159.890 176.480 171.541 1.00 39.59 C
ATOM 3492 SD MET B 542 160.653 177.781 170.567 1.00 39.59 S
ATOM 3493 CE MET B 542 162.173 178.015 171.474 1.00 39.59 C
ATOM 3494 N GLY B 543 155.635 174.133 172.433 1.00 42.83 N
ATOM 3495 CA GLY B 543 154.190 174.078 172.458 1.00 42.83 C
ATOM 3496 C GLY B 543 153.612 173.490 171.190 1.00 42.83 C
ATOM 3497 O GLY B 543 153.088 172.375 171.208 1.00 42.83 O
ATOM 3498 N ASP B 544 153.706 174.216 170.078 1.00 43.84 N
ATOM 3499 CA ASP B 544 153.209 173.704 168.808 1.00 43.84 C
ATOM 3500 C ASP B 544 154.114 174.052 167.634 1.00 43.84 C
ATOM 3501 O ASP B 544 153.709 173.850 166.484 1.00 43.84 O
ATOM 3502 CB ASP B 544 151.800 174.232 168.531 1.00 43.84 C
ATOM 3503 CG ASP B 544 150.721 173.314 169.050 1.00 43.84 C
ATOM 3504 OD1 ASP B 544 151.061 172.227 169.555 1.00 43.84 O
ATOM 3505 OD2 ASP B 544 149.532 173.677 168.953 1.00 43.84 O
ATOM 3506 N VAL B 545 155.316 174.564 167.878 1.00 38.87 N
ATOM 3507 CA VAL B 545 156.154 175.127 166.828 1.00 38.87 C
ATOM 3508 C VAL B 545 157.606 174.804 167.149 1.00 38.87 C

ATOM 3509 O VAL B 545 158.138 175.275 168.158 1.00 38.87 O
ATOM 3510 CB VAL B 545 155.958 176.641 166.694 1.00 38.87 C
ATOM 3511 CG1 VAL B 545 157.157 177.262 166.034 1.00 38.87 C
ATOM 3512 CG2 VAL B 545 154.708 176.935 165.901 1.00 38.87 C
ATOM 3513 N LEU B 546 158.249 174.014 166.295 1.00 39.13 N
ATOM 3514 CA LEU B 546 159.645 173.660 166.505 1.00 39.13 C
ATOM 3515 C LEU B 546 160.518 174.910 166.574 1.00 39.13 C
ATOM 3516 O LEU B 546 160.131 175.997 166.144 1.00 39.13 O
ATOM 3517 CB LEU B 546 160.136 172.743 165.390 1.00 39.13 C
ATOM 3518 CG LEU B 546 159.524 171.346 165.357 1.00 39.13 C
ATOM 3519 CD1 LEU B 546 159.382 170.862 163.936 1.00 39.13 C
ATOM 3520 CD2 LEU B 546 160.373 170.388 166.152 1.00 39.13 C
ATOM 3521 N GLY B 547 161.712 174.743 167.135 1.00 39.34 N
ATOM 3522 CA GLY B 547 162.685 175.816 167.207 1.00 39.34 C
ATOM 3523 C GLY B 547 164.066 175.361 166.787 1.00 39.34 C
ATOM 3524 O GLY B 547 164.629 174.451 167.397 1.00 39.34 O
ATOM 3525 N LEU B 548 164.626 175.982 165.754 1.00 42.21 N
ATOM 3526 CA LEU B 548 165.877 175.520 165.174 1.00 42.21 C
ATOM 3527 C LEU B 548 167.079 176.105 165.912 1.00 42.21 C
ATOM 3528 O LEU B 548 166.996 177.145 166.568 1.00 42.21 O
ATOM 3529 CB LEU B 548 165.949 175.893 163.694 1.00 42.21 C
ATOM 3530 CG LEU B 548 165.385 174.899 162.682 1.00 42.21 C
ATOM 3531 CD1 LEU B 548 166.258 173.674 162.604 1.00 42.21 C
ATOM 3532 CD2 LEU B 548 163.983 174.512 163.064 1.00 42.21 C
ATOM 3533 N ALA B 549 168.206 175.423 165.789 1.00 47.11 N
ATOM 3534 CA ALA B 549 169.470 175.854 166.380 1.00 47.11 C
ATOM 3535 C ALA B 549 170.567 174.982 165.784 1.00 47.11 C
ATOM 3536 O ALA B 549 170.318 174.193 164.865 1.00 47.11 O
ATOM 3537 CB ALA B 549 169.431 175.773 167.904 1.00 47.11 C
ATOM 3538 N SER B 550 171.781 175.116 166.304 1.00 51.12 N
ATOM 3539 CA SER B 550 172.926 174.362 165.821 1.00 51.12 C
ATOM 3540 C SER B 550 173.594 173.621 166.975 1.00 51.12 C
ATOM 3541 O SER B 550 173.419 173.956 168.149 1.00 51.12 O
ATOM 3542 CB SER B 550 173.928 175.286 165.122 1.00 51.12 C

ATOM 3543 OG SER B 550 174.802 174.551 164.289 1.00 51.12 O
ATOM 3544 N CYS B 551 174.365 172.595 166.630 1.00 50.83 N
ATOM 3545 CA CYS B 551 175.068 171.795 167.621 1.00 50.83 C
ATOM 3546 C CYS B 551 176.326 172.521 168.086 1.00 50.83 C
ATOM 3547 O CYS B 551 177.031 173.139 167.285 1.00 50.83 O
ATOM 3548 CB CYS B 551 175.436 170.424 167.047 1.00 50.83 C
ATOM 3549 SG CYS B 551 174.032 169.350 166.593 1.00 50.83 S
ATOM 3550 N VAL B 552 176.600 172.448 169.387 1.00 46.75 N
ATOM 3551 CA VAL B 552 177.801 173.066 169.936 1.00 46.75 C
ATOM 3552 C VAL B 552 178.975 172.095 169.828 1.00 46.75 C
ATOM 3553 O VAL B 552 178.801 170.884 169.698 1.00 46.75 O
ATOM 3554 CB VAL B 552 177.573 173.510 171.390 1.00 46.75 C
ATOM 3555 CG1 VAL B 552 178.751 174.302 171.881 1.00 46.75 C
ATOM 3556 CG2 VAL B 552 176.312 174.337 171.494 1.00 46.75 C
ATOM 3557 N THR B 553 180.191 172.636 169.879 1.00 44.89 N
ATOM 3558 CA THR B 553 181.405 171.842 169.718 1.00 44.89 C
ATOM 3559 C THR B 553 182.270 171.978 170.963 1.00 44.89 C
ATOM 3560 O THR B 553 182.730 173.077 171.286 1.00 44.89 O
ATOM 3561 CB THR B 553 182.188 172.267 168.477 1.00 44.89 C
ATOM 3562 OG1 THR B 553 181.375 172.090 167.313 1.00 44.89 O
ATOM 3563 CG2 THR B 553 183.433 171.424 168.334 1.00 44.89 C
ATOM 3564 N ILE B 554 182.485 170.860 171.653 1.00 47.57 N
ATOM 3565 CA ILE B 554 183.252 170.793 172.893 1.00 47.57 C
ATOM 3566 C ILE B 554 184.747 170.702 172.616 1.00 47.57 C
ATOM 3567 O ILE B 554 185.173 170.561 171.466 1.00 47.57 O
ATOM 3568 CB ILE B 554 182.784 169.619 173.766 1.00 47.57 C
ATOM 3569 CG1 ILE B 554 183.108 168.292 173.091 1.00 47.57 C
ATOM 3570 CG2 ILE B 554 181.302 169.727 174.031 1.00 47.57 C
ATOM 3571 CD1 ILE B 554 182.872 167.096 173.976 1.00 47.57 C
ATOM 3572 N ASN B 555 185.544 170.797 173.684 1.00 52.11 N
ATOM 3573 CA ASN B 555 187.001 170.889 173.605 1.00 52.11 C
ATOM 3574 C ASN B 555 187.637 170.070 172.487 1.00 52.11 C
ATOM 3575 O ASN B 555 188.500 170.569 171.758 1.00 52.11 O
ATOM 3576 CB ASN B 555 187.594 170.466 174.946 1.00 52.11 C

ATOM 3577 CG ASN B 555 188.944 171.075 175.191 1.00 52.11 C
ATOM 3578 OD1 ASN B 555 189.544 171.651 174.289 1.00 52.11 O
ATOM 3579 ND2 ASN B 555 189.438 170.947 176.414 1.00 52.11 N
ATOM 3580 N GLN B 556 187.240 168.810 172.339 1.00 50.36 N
ATOM 3581 CA GLN B 556 187.741 167.855 171.356 1.00 50.36 C
ATOM 3582 C GLN B 556 189.079 167.231 171.744 1.00 50.36 C
ATOM 3583 O GLN B 556 189.529 166.322 171.051 1.00 50.36 O
ATOM 3584 CB GLN B 556 187.903 168.470 169.953 1.00 50.36 C
ATOM 3585 CG GLN B 556 186.610 168.762 169.250 1.00 50.36 C
ATOM 3586 CD GLN B 556 185.855 167.509 168.922 1.00 50.36 C
ATOM 3587 OE1 GLN B 556 186.399 166.410 168.987 1.00 50.36 O
ATOM 3588 NE2 GLN B 556 184.588 167.661 168.573 1.00 50.36 N
ATOM 3589 N THR B 557 189.728 167.663 172.826 1.00 54.58 N
ATOM 3590 CA THR B 557 190.997 167.049 173.204 1.00 54.58 C
ATOM 3591 C THR B 557 191.095 166.810 174.705 1.00 54.58 C
ATOM 3592 O THR B 557 192.206 166.667 175.229 1.00 54.58 O
ATOM 3593 CB THR B 557 192.185 167.899 172.753 1.00 54.58 C
ATOM 3594 OG1 THR B 557 193.404 167.231 173.096 1.00 54.58 O
ATOM 3595 CG2 THR B 557 192.158 169.245 173.436 1.00 54.58 C
ATOM 3596 N SER B 558 189.966 166.772 175.408 1.00 51.67 N
ATOM 3597 CA SER B 558 189.959 166.412 176.817 1.00 51.67 C
ATOM 3598 C SER B 558 188.887 165.379 177.126 1.00 51.67 C
ATOM 3599 O SER B 558 188.716 165.017 178.295 1.00 51.67 O
ATOM 3600 CB SER B 558 189.747 167.642 177.694 1.00 51.67 C
ATOM 3601 OG SER B 558 188.365 167.873 177.894 1.00 51.67 O
ATOM 3602 N VAL B 559 188.162 164.902 176.125 1.00 44.69 N
ATOM 3603 CA VAL B 559 187.141 163.885 176.329 1.00 44.69 C
ATOM 3604 C VAL B 559 187.804 162.596 176.786 1.00 44.69 C
ATOM 3605 O VAL B 559 188.934 162.287 176.395 1.00 44.69 O
ATOM 3606 CB VAL B 559 186.333 163.675 175.039 1.00 44.69 C
ATOM 3607 CG1 VAL B 559 185.270 162.628 175.253 1.00 44.69 C
ATOM 3608 CG2 VAL B 559 185.709 164.976 174.602 1.00 44.69 C
ATOM 3609 N LYS B 560 187.103 161.840 177.626 1.00 41.89 N
ATOM 3610 CA LYS B 560 187.598 160.562 178.123 1.00 41.89 C

ATOM 3611 C LYS B 560 186.404 159.669 178.409 1.00 41.89 C
ATOM 3612 O LYS B 560 185.576 159.998 179.261 1.00 41.89 O
ATOM 3613 CB LYS B 560 188.445 160.745 179.383 1.00 41.89 C
ATOM 3614 CG LYS B 560 189.602 161.708 179.214 1.00 41.89 C
ATOM 3615 CD LYS B 560 190.574 161.612 180.376 1.00 41.89 C
ATOM 3616 CE LYS B 560 189.928 162.060 181.672 1.00 41.89 C
ATOM 3617 NZ LYS B 560 189.768 163.537 181.722 1.00 41.89 N
ATOM 3618 N VAL B 561 186.317 158.550 177.700 1.00 37.96 N
ATOM 3619 CA VAL B 561 185.218 157.605 177.849 1.00 37.96 C
ATOM 3620 C VAL B 561 185.650 156.527 178.829 1.00 37.96 C
ATOM 3621 O VAL B 561 186.599 155.780 178.563 1.00 37.96 O
ATOM 3622 CB VAL B 561 184.817 156.994 176.499 1.00 37.96 C
ATOM 3623 CG1 VAL B 561 183.759 155.934 176.697 1.00 37.96 C
ATOM 3624 CG2 VAL B 561 184.315 158.070 175.565 1.00 37.96 C
ATOM 3625 N LEU B 562 184.958 156.442 179.961 1.00 38.79 N
ATOM 3626 CA LEU B 562 185.274 155.424 180.947 1.00 38.79 C
ATOM 3627 C LEU B 562 185.061 154.034 180.352 1.00 38.79 C
ATOM 3628 O LEU B 562 184.457 153.867 179.293 1.00 38.79 O
ATOM 3629 CB LEU B 562 184.423 155.614 182.200 1.00 38.79 C
ATOM 3630 CG LEU B 562 184.569 156.962 182.905 1.00 38.79 C
ATOM 3631 CD1 LEU B 562 184.070 156.866 184.329 1.00 38.79 C
ATOM 3632 CD2 LEU B 562 186.009 157.419 182.880 1.00 38.79 C
ATOM 3633 N ARG B 563 185.568 153.026 181.053 1.00 45.07 N
ATOM 3634 CA ARG B 563 185.542 151.648 180.574 1.00 45.07 C
ATOM 3635 C ARG B 563 185.025 150.714 181.656 1.00 45.07 C
ATOM 3636 O ARG B 563 185.586 149.650 181.920 1.00 45.07 O
ATOM 3637 CB ARG B 563 186.923 151.218 180.099 1.00 45.07 C
ATOM 3638 CG ARG B 563 187.959 151.159 181.195 1.00 45.07 C
ATOM 3639 CD ARG B 563 189.151 150.329 180.765 1.00 45.07 C
ATOM 3640 NE ARG B 563 189.956 151.013 179.761 1.00 45.07 N
ATOM 3641 CZ ARG B 563 190.852 150.410 178.986 1.00 45.07 C
ATOM 3642 NH1 ARG B 563 191.543 151.109 178.099 1.00 45.07 N
ATOM 3643 NH2 ARG B 563 191.053 149.106 179.096 1.00 45.07 N
ATOM 3644 N ASP B 564 183.936 151.113 182.305 1.00 50.47 N

ATOM 3645 CA ASP B 564 183.268 150.263 183.286 1.00 50.47 C
ATOM 3646 C ASP B 564 181.875 150.823 183.512 1.00 50.47 C
ATOM 3647 O ASP B 564 181.736 151.990 183.890 1.00 50.47 O
ATOM 3648 CB ASP B 564 184.052 150.208 184.591 1.00 50.47 C
ATOM 3649 CG ASP B 564 183.539 149.142 185.529 1.00 50.47 C
ATOM 3650 OD1 ASP B 564 182.488 148.542 185.231 1.00 50.47 O
ATOM 3651 OD2 ASP B 564 184.188 148.896 186.566 1.00 50.47 O
ATOM 3652 N MET B 565 180.852 150.007 183.283 1.00 48.38 N
ATOM 3653 CA MET B 565 179.463 150.441 183.366 1.00 48.38 C
ATOM 3654 C MET B 565 178.760 149.850 184.584 1.00 48.38 C
ATOM 3655 O MET B 565 177.582 149.500 184.532 1.00 48.38 O
ATOM 3656 CB MET B 565 178.713 150.082 182.089 1.00 48.38 C
ATOM 3657 CG MET B 565 179.340 150.648 180.833 1.00 48.38 C
ATOM 3658 SD MET B 565 178.145 150.929 179.518 1.00 48.38 S
ATOM 3659 CE MET B 565 177.414 149.308 179.373 1.00 48.38 C
ATOM 3660 N ASN B 566 179.479 149.736 185.694 1.00 52.74 N
ATOM 3661 CA ASN B 566 178.928 149.260 186.955 1.00 52.74 C
ATOM 3662 C ASN B 566 178.807 150.430 187.918 1.00 52.74 C
ATOM 3663 O ASN B 566 179.786 151.141 188.161 1.00 52.74 O
ATOM 3664 CB ASN B 566 179.813 148.174 187.568 1.00 52.74 C
ATOM 3665 CG ASN B 566 179.463 146.791 187.077 1.00 52.74 C
ATOM 3666 OD1 ASN B 566 178.311 146.374 187.131 1.00 52.74 O
ATOM 3667 ND2 ASN B 566 180.463 146.066 186.595 1.00 52.74 N
ATOM 3668 N VAL B 567 177.610 150.629 188.465 1.00 58.06 N
ATOM 3669 CA VAL B 567 177.416 151.683 189.454 1.00 58.06 C
ATOM 3670 C VAL B 567 178.154 151.288 190.725 1.00 58.06 C
ATOM 3671 O VAL B 567 177.848 150.262 191.343 1.00 58.06 O
ATOM 3672 CB VAL B 567 175.926 151.917 189.724 1.00 58.06 C
ATOM 3673 CG1 VAL B 567 175.727 153.206 190.491 1.00 58.06 C
ATOM 3674 CG2 VAL B 567 175.156 151.948 188.426 1.00 58.06 C
ATOM 3675 N LYS B 568 179.137 152.097 191.119 1.00 64.75 N
ATOM 3676 CA LYS B 568 179.971 151.749 192.261 1.00 64.75 C
ATOM 3677 C LYS B 568 179.253 151.912 193.591 1.00 64.75 C
ATOM 3678 O LYS B 568 179.667 151.301 194.582 1.00 64.75 O

ATOM 3679 CB LYS B 568 181.242 152.598 192.266 1.00 64.75 C
ATOM 3680 CG LYS B 568 182.289 152.152 191.264 1.00 64.75 C
ATOM 3681 CD LYS B 568 183.628 152.810 191.544 1.00 64.75 C
ATOM 3682 CE LYS B 568 184.665 152.402 190.515 1.00 64.75 C
ATOM 3683 NZ LYS B 568 184.316 152.903 189.158 1.00 64.75 N
ATOM 3684 N GLU B 569 178.189 152.710 193.637 1.00 70.01 N
ATOM 3685 CA GLU B 569 177.508 152.974 194.899 1.00 70.01 C
ATOM 3686 C GLU B 569 176.540 151.851 195.256 1.00 70.01 C
ATOM 3687 O GLU B 569 176.697 151.183 196.284 1.00 70.01 O
ATOM 3688 CB GLU B 569 176.774 154.313 194.817 1.00 70.01 C
ATOM 3689 CG GLU B 569 177.678 155.490 194.493 1.00 70.01 C
ATOM 3690 CD GLU B 569 177.015 156.499 193.576 1.00 70.01 C
ATOM 3691 OE1 GLU B 569 175.801 156.367 193.319 1.00 70.01 O
ATOM 3692 OE2 GLU B 569 177.708 157.427 193.112 1.00 70.01 O
ATOM 3693 N SER B 570 175.539 151.620 194.407 1.00 66.73 N
ATOM 3694 CA SER B 570 174.469 150.679 194.704 1.00 66.73 C
ATOM 3695 C SER B 570 174.666 149.398 193.909 1.00 66.73 C
ATOM 3696 O SER B 570 174.283 149.341 192.733 1.00 66.73 O
ATOM 3697 CB SER B 570 173.110 151.304 194.385 1.00 66.73 C
ATOM 3698 OG SER B 570 173.062 151.748 193.041 1.00 66.73 O
ATOM 3699 N PRO B 571 175.242 148.349 194.491 1.00 66.74 N
ATOM 3700 CA PRO B 571 175.402 147.096 193.745 1.00 66.74 C
ATOM 3701 C PRO B 571 174.060 146.568 193.267 1.00 66.74 C
ATOM 3702 O PRO B 571 173.057 146.628 193.981 1.00 66.74 O
ATOM 3703 CB PRO B 571 176.049 146.153 194.767 1.00 66.74 C
ATOM 3704 CG PRO B 571 175.764 146.765 196.094 1.00 66.74 C
ATOM 3705 CD PRO B 571 175.746 148.241 195.867 1.00 66.74 C
ATOM 3706 N GLY B 572 174.048 146.048 192.043 1.00 63.76 N
ATOM 3707 CA GLY B 572 172.850 145.544 191.410 1.00 63.76 C
ATOM 3708 C GLY B 572 172.391 146.352 190.218 1.00 63.76 C
ATOM 3709 O GLY B 572 171.691 145.810 189.354 1.00 63.76 O
ATOM 3710 N ARG B 573 172.764 147.625 190.143 1.00 60.93 N
ATOM 3711 CA ARG B 573 172.426 148.484 189.021 1.00 60.93 C
ATOM 3712 C ARG B 573 173.649 148.688 188.138 1.00 60.93 C

ATOM 3713 O ARG B 573 174.790 148.602 188.597 1.00 60.93 O
ATOM 3714 CB ARG B 573 171.898 149.838 189.499 1.00 60.93 C
ATOM 3715 CG ARG B 573 170.837 149.739 190.572 1.00 60.93 C
ATOM 3716 CD ARG B 573 169.514 149.288 189.989 1.00 60.93 C
ATOM 3717 NE ARG B 573 168.945 150.281 189.085 1.00 60.93 N
ATOM 3718 CZ ARG B 573 167.755 150.168 188.507 1.00 60.93 C
ATOM 3719 NH1 ARG B 573 167.004 149.101 188.735 1.00 60.93 N
ATOM 3720 NH2 ARG B 573 167.315 151.120 187.700 1.00 60.93 N
ATOM 3721 N CYS B 574 173.398 148.962 186.861 1.00 55.37 N
ATOM 3722 CA CYS B 574 174.454 149.104 185.873 1.00 55.37 C
ATOM 3723 C CYS B 574 174.026 150.126 184.833 1.00 55.37 C
ATOM 3724 O CYS B 574 172.865 150.150 184.424 1.00 55.37 O
ATOM 3725 CB CYS B 574 174.772 147.757 185.220 1.00 55.37 C
ATOM 3726 SG CYS B 574 175.451 146.528 186.376 1.00 55.37 S
ATOM 3727 N TYR B 575 174.964 150.974 184.415 1.00 47.65 N
ATOM 3728 CA TYR B 575 174.642 152.049 183.490 1.00 47.65 C
ATOM 3729 C TYR B 575 174.072 151.486 182.192 1.00 47.65 C
ATOM 3730 O TYR B 575 174.140 150.290 181.913 1.00 47.65 O
ATOM 3731 CB TYR B 575 175.880 152.892 183.190 1.00 47.65 C
ATOM 3732 CG TYR B 575 176.277 153.836 184.298 1.00 47.65 C
ATOM 3733 CD1 TYR B 575 175.423 154.835 184.724 1.00 47.65 C
ATOM 3734 CD2 TYR B 575 177.511 153.730 184.912 1.00 47.65 C
ATOM 3735 CE1 TYR B 575 175.784 155.697 185.735 1.00 47.65 C
ATOM 3736 CE2 TYR B 575 177.882 154.584 185.921 1.00 47.65 C
ATOM 3737 CZ TYR B 575 177.016 155.566 186.329 1.00 47.65 C
ATOM 3738 OH TYR B 575 177.387 156.421 187.338 1.00 47.65 O
ATOM 3739 N SER B 576 173.498 152.380 181.388 1.00 43.65 N
ATOM 3740 CA SER B 576 172.913 152.011 180.110 1.00 43.65 C
ATOM 3741 C SER B 576 173.697 152.526 178.915 1.00 43.65 C
ATOM 3742 O SER B 576 173.522 152.003 177.812 1.00 43.65 O
ATOM 3743 CB SER B 576 171.473 152.531 180.017 1.00 43.65 C
ATOM 3744 OG SER B 576 170.750 151.857 179.006 1.00 43.65 O
ATOM 3745 N ARG B 577 174.543 153.531 179.107 1.00 38.69 N
ATOM 3746 CA ARG B 577 175.400 154.102 178.084 1.00 38.69 C

ATOM 3747 C ARG B 577 176.722 154.471 178.735 1.00 38.69 C
ATOM 3748 O ARG B 577 176.747 154.839 179.914 1.00 38.69 O
ATOM 3749 CB ARG B 577 174.772 155.350 177.447 1.00 38.69 C
ATOM 3750 CG ARG B 577 173.481 155.105 176.697 1.00 38.69 C
ATOM 3751 CD ARG B 577 173.768 154.497 175.346 1.00 38.69 C
ATOM 3752 NE ARG B 577 172.781 154.863 174.341 1.00 38.69 N
ATOM 3753 CZ ARG B 577 172.953 154.688 173.036 1.00 38.69 C
ATOM 3754 NH1 ARG B 577 174.076 154.154 172.581 1.00 38.69 N
ATOM 3755 NH2 ARG B 577 172.005 155.046 172.186 1.00 38.69 N
ATOM 3756 N PRO B 578 177.827 154.383 178.008 1.00 35.43 N
ATOM 3757 CA PRO B 578 179.115 154.776 178.592 1.00 35.43 C
ATOM 3758 C PRO B 578 179.042 156.162 179.206 1.00 35.43 C
ATOM 3759 O PRO B 578 178.164 156.949 178.845 1.00 35.43 O
ATOM 3760 CB PRO B 578 180.071 154.736 177.396 1.00 35.43 C
ATOM 3761 CG PRO B 578 179.431 153.816 176.432 1.00 35.43 C
ATOM 3762 CD PRO B 578 177.957 153.980 176.601 1.00 35.43 C
ATOM 3763 N VAL B 579 179.945 156.483 180.126 1.00 36.68 N
ATOM 3764 CA VAL B 579 179.910 157.751 180.845 1.00 36.68 C
ATOM 3765 C VAL B 579 181.149 158.549 180.463 1.00 36.68 C
ATOM 3766 O VAL B 579 182.276 158.064 180.609 1.00 36.68 O
ATOM 3767 CB VAL B 579 179.833 157.540 182.363 1.00 36.68 C
ATOM 3768 CG1 VAL B 579 180.972 156.666 182.821 1.00 36.68 C
ATOM 3769 CG2 VAL B 579 179.864 158.864 183.077 1.00 36.68 C
ATOM 3770 N VAL B 580 180.938 159.771 179.977 1.00 39.18 N
ATOM 3771 CA VAL B 580 182.003 160.627 179.468 1.00 39.18 C
ATOM 3772 C VAL B 580 182.206 161.793 180.422 1.00 39.18 C
ATOM 3773 O VAL B 580 181.286 162.199 181.139 1.00 39.18 O
ATOM 3774 CB VAL B 580 181.675 161.140 178.052 1.00 39.18 C
ATOM 3775 CG1 VAL B 580 182.853 161.881 177.477 1.00 39.18 C
ATOM 3776 CG2 VAL B 580 181.284 159.996 177.156 1.00 39.18 C
ATOM 3777 N ILE B 581 183.419 162.342 180.425 1.00 42.91 N
ATOM 3778 CA ILE B 581 183.746 163.531 181.212 1.00 42.91 C
ATOM 3779 C ILE B 581 184.394 164.535 180.260 1.00 42.91 C
ATOM 3780 O ILE B 581 185.614 164.550 180.077 1.00 42.91 O

ATOM 3781 CB ILE B 581 184.651 163.220 182.408 1.00 42.91 C
ATOM 3782 CG1 ILE B 581 186.036 162.774 181.956 1.00 42.91 C
ATOM 3783 CG2 ILE B 581 184.036 162.135 183.259 1.00 42.91 C
ATOM 3784 CD1 ILE B 581 187.031 162.703 183.080 1.00 42.91 C
ATOM 3785 N PHE B 582 183.578 165.389 179.654 1.00 46.91 N
ATOM 3786 CA PHE B 582 184.050 166.348 178.669 1.00 46.91 C
ATOM 3787 C PHE B 582 184.360 167.685 179.337 1.00 46.91 C
ATOM 3788 O PHE B 582 184.459 167.790 180.561 1.00 46.91 O
ATOM 3789 CB PHE B 582 183.035 166.493 177.541 1.00 46.91 C
ATOM 3790 CG PHE B 582 181.701 166.993 177.986 1.00 46.91 C
ATOM 3791 CD1 PHE B 582 181.440 168.345 178.039 1.00 46.91 C
ATOM 3792 CD2 PHE B 582 180.704 166.112 178.338 1.00 46.91 C
ATOM 3793 CE1 PHE B 582 180.211 168.806 178.442 1.00 46.91 C
ATOM 3794 CE2 PHE B 582 179.474 166.569 178.740 1.00 46.91 C
ATOM 3795 CZ PHE B 582 179.226 167.917 178.793 1.00 46.91 C
ATOM 3796 N ASN B 583 184.544 168.722 178.524 1.00 50.90 N
ATOM 3797 CA ASN B 583 184.934 170.037 179.008 1.00 50.90 C
ATOM 3798 C ASN B 583 184.625 171.078 177.939 1.00 50.90 C
ATOM 3799 O ASN B 583 185.123 170.968 176.816 1.00 50.90 O
ATOM 3800 CB ASN B 583 186.422 170.036 179.354 1.00 50.90 C
ATOM 3801 CG ASN B 583 186.756 170.969 180.480 1.00 50.90 C
ATOM 3802 OD1 ASN B 583 185.949 171.812 180.857 1.00 50.90 O
ATOM 3803 ND2 ASN B 583 187.956 170.833 181.026 1.00 50.90 N
ATOM 3804 N PHE B 584 183.816 172.089 178.256 1.00 52.11 N
ATOM 3805 CA PHE B 584 183.383 173.025 177.219 1.00 52.11 C
ATOM 3806 C PHE B 584 184.536 173.788 176.585 1.00 52.11 C
ATOM 3807 O PHE B 584 185.696 173.617 176.967 1.00 52.11 O
ATOM 3808 CB PHE B 584 182.362 174.026 177.761 1.00 52.11 C
ATOM 3809 CG PHE B 584 180.976 173.473 177.868 1.00 52.11 C
ATOM 3810 CD1 PHE B 584 180.159 173.422 176.753 1.00 52.11 C
ATOM 3811 CD2 PHE B 584 180.495 173.003 179.064 1.00 52.11 C
ATOM 3812 CE1 PHE B 584 178.887 172.914 176.838 1.00 52.11 C
ATOM 3813 CE2 PHE B 584 179.215 172.497 179.150 1.00 52.11 C
ATOM 3814 CZ PHE B 584 178.414 172.449 178.031 1.00 52.11 C

ATOM 3815 N ALA B 585 184.207 174.630 175.610 1.00 55.03 N
ATOM 3816 CA ALA B 585 185.195 175.343 174.807 1.00 55.03 C
ATOM 3817 C ALA B 585 185.865 176.400 175.666 1.00 55.03 C
ATOM 3818 O ALA B 585 185.271 177.430 175.983 1.00 55.03 O
ATOM 3819 CB ALA B 585 184.534 175.971 173.587 1.00 55.03 C
ATOM 3820 N ASN B 586 187.113 176.153 176.046 1.00 64.53 N
ATOM 3821 CA ASN B 586 187.884 177.098 176.845 1.00 64.53 C
ATOM 3822 C ASN B 586 187.186 177.394 178.174 1.00 64.53 C
ATOM 3823 O ASN B 586 186.752 178.513 178.452 1.00 64.53 O
ATOM 3824 CB ASN B 586 188.142 178.387 176.066 1.00 64.53 C
ATOM 3825 CG ASN B 586 188.963 179.378 176.854 1.00 64.53 C
ATOM 3826 OD1 ASN B 586 188.455 180.403 177.303 1.00 64.53 O
ATOM 3827 ND2 ASN B 586 190.242 179.075 177.034 1.00 64.53 N
ATOM 3828 N SER B 587 187.080 176.355 178.996 1.00 65.21 N
ATOM 3829 CA SER B 587 186.574 176.475 180.352 1.00 65.21 C
ATOM 3830 C SER B 587 187.452 175.649 181.282 1.00 65.21 C
ATOM 3831 O SER B 587 188.322 174.890 180.847 1.00 65.21 O
ATOM 3832 CB SER B 587 185.113 176.024 180.446 1.00 65.21 C
ATOM 3833 OG SER B 587 184.254 176.957 179.820 1.00 65.21 O
ATOM 3834 N SER B 588 187.206 175.798 182.577 1.00 68.97 N
ATOM 3835 CA SER B 588 187.861 175.010 183.614 1.00 68.97 C
ATOM 3836 C SER B 588 186.787 174.402 184.502 1.00 68.97 C
ATOM 3837 O SER B 588 186.835 174.477 185.729 1.00 68.97 O
ATOM 3838 CB SER B 588 188.836 175.862 184.422 1.00 68.97 C
ATOM 3839 OG SER B 588 189.070 175.290 185.697 1.00 68.97 O
ATOM 3840 N CYS B 589 185.790 173.791 183.869 1.00 67.53 N
ATOM 3841 CA CYS B 589 184.507 173.559 184.519 1.00 67.53 C
ATOM 3842 C CYS B 589 184.096 172.138 184.160 1.00 67.53 C
ATOM 3843 O CYS B 589 183.397 171.929 183.164 1.00 67.53 O
ATOM 3844 CB CYS B 589 183.504 174.598 184.012 1.00 67.53 C
ATOM 3845 SG CYS B 589 182.050 175.042 184.992 1.00 67.53 S
ATOM 3846 N VAL B 590 184.518 171.165 184.972 1.00 58.07 N
ATOM 3847 CA VAL B 590 184.389 169.764 184.585 1.00 58.07 C
ATOM 3848 C VAL B 590 182.936 169.321 184.671 1.00 58.07 C

ATOM 3849 O VAL B 590 182.159 169.807 185.503 1.00 58.07 O
ATOM 3850 CB VAL B 590 185.285 168.872 185.458 1.00 58.07 C
ATOM 3851 CG1 VAL B 590 185.125 167.426 185.051 1.00 58.07 C
ATOM 3852 CG2 VAL B 590 186.725 169.299 185.333 1.00 58.07 C
ATOM 3853 N GLN B 591 182.568 168.372 183.814 1.00 53.36 N
ATOM 3854 CA GLN B 591 181.191 167.914 183.724 1.00 53.36 C
ATOM 3855 C GLN B 591 181.160 166.442 183.341 1.00 53.36 C
ATOM 3856 O GLN B 591 182.183 165.841 183.010 1.00 53.36 O
ATOM 3857 CB GLN B 591 180.399 168.752 182.720 1.00 53.36 C
ATOM 3858 CG GLN B 591 180.253 170.199 183.127 1.00 53.36 C
ATOM 3859 CD GLN B 591 179.382 170.967 182.173 1.00 53.36 C
ATOM 3860 OE1 GLN B 591 178.918 170.423 181.177 1.00 53.36 O
ATOM 3861 NE2 GLN B 591 179.147 172.235 182.471 1.00 53.36 N
ATOM 3862 N TYR B 592 179.961 165.866 183.387 1.00 47.90 N
ATOM 3863 CA TYR B 592 179.743 164.453 183.114 1.00 47.90 C
ATOM 3864 C TYR B 592 178.583 164.290 182.145 1.00 47.90 C
ATOM 3865 O TYR B 592 177.602 165.033 182.211 1.00 47.90 O
ATOM 3866 CB TYR B 592 179.449 163.679 184.402 1.00 47.90 C
ATOM 3867 CG TYR B 592 180.603 163.646 185.373 1.00 47.90 C
ATOM 3868 CD1 TYR B 592 180.855 164.717 186.216 1.00 47.90 C
ATOM 3869 CD2 TYR B 592 181.443 162.547 185.447 1.00 47.90 C
ATOM 3870 CE1 TYR B 592 181.910 164.693 187.104 1.00 47.90 C
ATOM 3871 CE2 TYR B 592 182.499 162.515 186.331 1.00 47.90 C
ATOM 3872 CZ TYR B 592 182.729 163.591 187.157 1.00 47.90 C
ATOM 3873 OH TYR B 592 183.781 163.564 188.041 1.00 47.90 O
ATOM 3874 N GLY B 593 178.698 163.317 181.247 1.00 40.27 N
ATOM 3875 CA GLY B 593 177.645 163.044 180.289 1.00 40.27 C
ATOM 3876 C GLY B 593 177.578 161.576 179.933 1.00 40.27 C
ATOM 3877 O GLY B 593 178.187 160.751 180.617 1.00 40.27 O
ATOM 3878 N GLN B 594 176.854 161.229 178.873 1.00 39.10 N
ATOM 3879 CA GLN B 594 176.741 159.840 178.448 1.00 39.10 C
ATOM 3880 C GLN B 594 176.779 159.769 176.931 1.00 39.10 C
ATOM 3881 O GLN B 594 176.062 160.508 176.255 1.00 39.10 O
ATOM 3882 CB GLN B 594 175.453 159.204 178.976 1.00 39.10 C

ATOM 3883 CG GLN B 594 175.540 158.778 180.423 1.00 39.10 C
ATOM 3884 CD GLN B 594 174.339 157.986 180.861 1.00 39.10 C
ATOM 3885 OE1 GLN B 594 173.206 158.359 180.584 1.00 39.10 O
ATOM 3886 NE2 GLN B 594 174.579 156.880 181.546 1.00 39.10 N
ATOM 3887 N LEU B 595 177.600 158.866 176.405 1.00 39.06 N
ATOM 3888 CA LEU B 595 177.846 158.802 174.970 1.00 39.06 C
ATOM 3889 C LEU B 595 176.575 158.465 174.206 1.00 39.06 C
ATOM 3890 O LEU B 595 175.966 157.416 174.426 1.00 39.06 O
ATOM 3891 CB LEU B 595 178.923 157.762 174.676 1.00 39.06 C
ATOM 3892 CG LEU B 595 179.584 157.852 173.306 1.00 39.06 C
ATOM 3893 CD1 LEU B 595 180.645 158.929 173.311 1.00 39.06 C
ATOM 3894 CD2 LEU B 595 180.177 156.516 172.929 1.00 39.06 C
ATOM 3895 N GLY B 596 176.190 159.349 173.291 1.00 44.76 N
ATOM 3896 CA GLY B 596 175.044 159.108 172.439 1.00 44.76 C
ATOM 3897 C GLY B 596 175.392 158.252 171.242 1.00 44.76 C
ATOM 3898 O GLY B 596 176.153 157.290 171.366 1.00 44.76 O
ATOM 3899 N GLU B 597 174.848 158.589 170.078 1.00 53.40 N
ATOM 3900 CA GLU B 597 175.117 157.869 168.841 1.00 53.40 C
ATOM 3901 C GLU B 597 175.807 158.792 167.849 1.00 53.40 C
ATOM 3902 O GLU B 597 175.336 159.904 167.599 1.00 53.40 O
ATOM 3903 CB GLU B 597 173.827 157.319 168.234 1.00 53.40 C
ATOM 3904 CG GLU B 597 174.015 156.705 166.862 1.00 53.40 C
ATOM 3905 CD GLU B 597 172.802 155.929 166.398 1.00 53.40 C
ATOM 3906 OE1 GLU B 597 171.841 155.795 167.184 1.00 53.40 O
ATOM 3907 OE2 GLU B 597 172.811 155.447 165.247 1.00 53.40 O
ATOM 3908 N ASP B 598 176.912 158.320 167.273 1.00 53.30 N
ATOM 3909 CA ASP B 598 177.696 159.100 166.316 1.00 53.30 C
ATOM 3910 C ASP B 598 178.389 160.281 166.994 1.00 53.30 C
ATOM 3911 O ASP B 598 178.378 161.404 166.494 1.00 53.30 O
ATOM 3912 CB ASP B 598 176.827 159.573 165.150 1.00 53.30 C
ATOM 3913 CG ASP B 598 176.854 158.616 163.979 1.00 53.30 C
ATOM 3914 OD1 ASP B 598 177.917 158.011 163.731 1.00 53.30 O
ATOM 3915 OD2 ASP B 598 175.813 158.469 163.305 1.00 53.30 O
ATOM 3916 N ASN B 599 178.997 160.015 168.147 1.00 48.24 N

ATOM 3917 CA ASN B 599 179.881 160.953 168.825 1.00 48.24 C
ATOM 3918 C ASN B 599 179.159 162.151 169.425 1.00 48.24 C
ATOM 3919 O ASN B 599 179.809 163.115 169.831 1.00 48.24 O
ATOM 3920 CB ASN B 599 180.982 161.450 167.886 1.00 48.24 C
ATOM 3921 CG ASN B 599 182.272 160.692 168.055 1.00 48.24 C
ATOM 3922 OD1 ASN B 599 182.601 160.244 169.150 1.00 48.24 O
ATOM 3923 ND2 ASN B 599 183.021 160.554 166.972 1.00 48.24 N
ATOM 3924 N GLU B 600 177.833 162.136 169.496 1.00 48.19 N
ATOM 3925 CA GLU B 600 177.112 163.222 170.143 1.00 48.19 C
ATOM 3926 C GLU B 600 176.954 162.903 171.620 1.00 48.19 C
ATOM 3927 O GLU B 600 176.597 161.780 171.984 1.00 48.19 O
ATOM 3928 CB GLU B 600 175.744 163.448 169.505 1.00 48.19 C
ATOM 3929 CG GLU B 600 174.660 162.541 170.024 1.00 48.19 C
ATOM 3930 CD GLU B 600 173.281 163.111 169.787 1.00 48.19 C
ATOM 3931 OE1 GLU B 600 173.193 164.264 169.322 1.00 48.19 O
ATOM 3932 OE2 GLU B 600 172.287 162.408 170.067 1.00 48.19 O
ATOM 3933 N ILE B 601 177.219 163.890 172.464 1.00 43.13 N
ATOM 3934 CA ILE B 601 177.234 163.709 173.908 1.00 43.13 C
ATOM 3935 C ILE B 601 175.877 164.100 174.469 1.00 43.13 C
ATOM 3936 O ILE B 601 175.359 165.182 174.170 1.00 43.13 O
ATOM 3937 CB ILE B 601 178.356 164.535 174.554 1.00 43.13 C
ATOM 3938 CG1 ILE B 601 179.693 163.822 174.377 1.00 43.13 C
ATOM 3939 CG2 ILE B 601 178.064 164.764 176.012 1.00 43.13 C
ATOM 3940 CD1 ILE B 601 180.870 164.626 174.832 1.00 43.13 C
ATOM 3941 N LEU B 602 175.296 163.215 175.271 1.00 42.28 N
ATOM 3942 CA LEU B 602 174.055 163.501 175.971 1.00 42.28 C
ATOM 3943 C LEU B 602 174.369 164.074 177.343 1.00 42.28 C
ATOM 3944 O LEU B 602 175.244 163.571 178.051 1.00 42.28 O
ATOM 3945 CB LEU B 602 173.210 162.236 176.119 1.00 42.28 C
ATOM 3946 CG LEU B 602 172.865 161.453 174.855 1.00 42.28 C
ATOM 3947 CD1 LEU B 602 172.374 160.070 175.212 1.00 42.28 C
ATOM 3948 CD2 LEU B 602 171.821 162.187 174.051 1.00 42.28 C
ATOM 3949 N LEU B 603 173.659 165.132 177.713 1.00 47.57 N
ATOM 3950 CA LEU B 603 173.851 165.718 179.028 1.00 47.57 C

ATOM 3951 C LEU B 603 173.294 164.795 180.108 1.00 47.57 C
ATOM 3952 O LEU B 603 172.459 163.922 179.853 1.00 47.57 O
ATOM 3953 CB LEU B 603 173.182 167.089 179.107 1.00 47.57 C
ATOM 3954 CG LEU B 603 173.917 168.250 178.441 1.00 47.57 C
ATOM 3955 CD1 LEU B 603 173.005 169.452 178.316 1.00 47.57 C
ATOM 3956 CD2 LEU B 603 175.164 168.613 179.222 1.00 47.57 C
ATOM 3957 N GLY B 604 173.771 164.994 181.331 1.00 48.70 N
ATOM 3958 CA GLY B 604 173.310 164.223 182.464 1.00 48.70 C
ATOM 3959 C GLY B 604 174.065 162.920 182.644 1.00 48.70 C
ATOM 3960 O GLY B 604 174.874 162.503 181.815 1.00 48.70 O
ATOM 3961 N ASN B 605 173.787 162.268 183.773 1.00 50.73 N
ATOM 3962 CA ASN B 605 174.496 161.060 184.175 1.00 50.73 C
ATOM 3963 C ASN B 605 173.557 160.051 184.829 1.00 50.73 C
ATOM 3964 O ASN B 605 173.965 159.318 185.735 1.00 50.73 O
ATOM 3965 CB ASN B 605 175.638 161.412 185.124 1.00 50.73 C
ATOM 3966 CG ASN B 605 176.549 160.251 185.393 1.00 50.73 C
ATOM 3967 OD1 ASN B 605 176.524 159.258 184.675 1.00 50.73 O
ATOM 3968 ND2 ASN B 605 177.363 160.365 186.433 1.00 50.73 N
ATOM 3969 N HIS B 606 172.299 159.994 184.387 1.00 51.59 N
ATOM 3970 CA HIS B 606 171.223 159.436 185.198 1.00 51.59 C
ATOM 3971 C HIS B 606 170.415 158.370 184.467 1.00 51.59 C
ATOM 3972 O HIS B 606 169.216 158.231 184.712 1.00 51.59 O
ATOM 3973 CB HIS B 606 170.287 160.550 185.654 1.00 51.59 C
ATOM 3974 CG HIS B 606 169.568 161.215 184.524 1.00 51.59 C
ATOM 3975 ND1 HIS B 606 170.081 162.306 183.858 1.00 51.59 N
ATOM 3976 CD2 HIS B 606 168.387 160.931 183.928 1.00 51.59 C
ATOM 3977 CE1 HIS B 606 169.241 162.672 182.907 1.00 51.59 C
ATOM 3978 NE2 HIS B 606 168.206 161.853 182.928 1.00 51.59 N
ATOM 3979 N ARG B 607 171.034 157.608 183.575 1.00 45.22 N
ATOM 3980 CA ARG B 607 170.331 156.564 182.831 1.00 45.22 C
ATOM 3981 C ARG B 607 170.915 155.217 183.240 1.00 45.22 C
ATOM 3982 O ARG B 607 171.970 154.815 182.743 1.00 45.22 O
ATOM 3983 CB ARG B 607 170.441 156.794 181.329 1.00 45.22 C
ATOM 3984 CG ARG B 607 170.019 158.183 180.892 1.00 45.22 C

ATOM 3985 CD ARG B 607 170.539 158.522 179.510 1.00 45.22 C
ATOM 3986 NE ARG B 607 170.028 159.801 179.036 1.00 45.22 N
ATOM 3987 CZ ARG B 607 170.617 160.969 179.261 1.00 45.22 C
ATOM 3988 NH1 ARG B 607 171.743 161.021 179.953 1.00 45.22 N
ATOM 3989 NH2 ARG B 607 170.081 162.085 178.795 1.00 45.22 N
ATOM 3990 N THR B 608 170.231 154.522 184.139 1.00 51.85 N
ATOM 3991 CA THR B 608 170.698 153.260 184.696 1.00 51.85 C
ATOM 3992 C THR B 608 169.758 152.128 184.298 1.00 51.85 C
ATOM 3993 O THR B 608 168.765 152.329 183.600 1.00 51.85 O
ATOM 3994 CB THR B 608 170.825 153.349 186.218 1.00 51.85 C
ATOM 3995 OG1 THR B 608 169.545 153.649 186.787 1.00 51.85 O
ATOM 3996 CG2 THR B 608 171.812 154.429 186.611 1.00 51.85 C
ATOM 3997 N GLU B 609 170.092 150.925 184.753 1.00 56.83 N
ATOM 3998 CA GLU B 609 169.300 149.738 184.463 1.00 56.83 C
ATOM 3999 C GLU B 609 169.755 148.618 185.389 1.00 56.83 C
ATOM 4000 O GLU B 609 170.853 148.657 185.948 1.00 56.83 O
ATOM 4001 CB GLU B 609 169.425 149.335 182.994 1.00 56.83 C
ATOM 4002 CG GLU B 609 170.560 148.373 182.715 1.00 56.83 C
ATOM 4003 CD GLU B 609 170.628 147.962 181.261 1.00 56.83 C
ATOM 4004 OE1 GLU B 609 169.952 148.603 180.432 1.00 56.83 O
ATOM 4005 OE2 GLU B 609 171.356 146.998 180.947 1.00 56.83 O
ATOM 4006 N GLU B 610 168.899 147.608 185.535 1.00 59.69 N
ATOM 4007 CA GLU B 610 169.107 146.539 186.514 1.00 59.69 C
ATOM 4008 C GLU B 610 169.826 145.363 185.855 1.00 59.69 C
ATOM 4009 O GLU B 610 169.255 144.308 185.586 1.00 59.69 O
ATOM 4010 CB GLU B 610 167.770 146.118 187.115 1.00 59.69 C
ATOM 4011 CG GLU B 610 167.821 144.865 187.960 1.00 59.69 C
ATOM 4012 CD GLU B 610 166.490 144.145 188.000 1.00 59.69 C
ATOM 4013 OE1 GLU B 610 165.908 143.909 186.922 1.00 59.69 O
ATOM 4014 OE2 GLU B 610 166.022 143.815 189.110 1.00 59.69 O
ATOM 4015 N CYS B 611 171.120 145.565 185.625 1.00 59.25 N
ATOM 4016 CA CYS B 611 171.878 144.719 184.711 1.00 59.25 C
ATOM 4017 C CYS B 611 171.649 143.236 184.965 1.00 59.25 C
ATOM 4018 O CYS B 611 171.569 142.784 186.108 1.00 59.25 O

ATOM 4019 CB CYS B 611 173.367 145.047 184.803 1.00 59.25 C
ATOM 4020 SG CYS B 611 174.075 145.031 186.450 1.00 59.25 S
ATOM 4021 N GLN B 612 171.556 142.485 183.867 1.00 51.88 N
ATOM 4022 CA GLN B 612 171.296 141.050 183.881 1.00 51.88 C
ATOM 4023 C GLN B 612 172.281 140.375 182.940 1.00 51.88 C
ATOM 4024 O GLN B 612 172.345 140.725 181.759 1.00 51.88 O
ATOM 4025 CB GLN B 612 169.860 140.752 183.451 1.00 51.88 C
ATOM 4026 CG GLN B 612 169.551 141.207 182.034 1.00 51.88 C
ATOM 4027 CD GLN B 612 168.068 141.319 181.767 1.00 51.88 C
ATOM 4028 OE1 GLN B 612 167.264 141.380 182.695 1.00 51.88 O
ATOM 4029 NE2 GLN B 612 167.696 141.355 180.494 1.00 51.88 N
ATOM 4030 N LEU B 613 173.038 139.411 183.458 1.00 45.62 N
ATOM 4031 CA LEU B 613 174.072 138.691 182.732 1.00 45.62 C
ATOM 4032 C LEU B 613 173.512 137.416 182.108 1.00 45.62 C
ATOM 4033 O LEU B 613 172.526 136.860 182.600 1.00 45.62 O
ATOM 4034 CB LEU B 613 175.218 138.333 183.670 1.00 45.62 C
ATOM 4035 CG LEU B 613 176.183 139.461 184.021 1.00 45.62 C
ATOM 4036 CD1 LEU B 613 175.506 140.469 184.909 1.00 45.62 C
ATOM 4037 CD2 LEU B 613 177.403 138.903 184.710 1.00 45.62 C
ATOM 4038 N PRO B 614 174.114 136.922 181.013 1.00 45.02 N
ATOM 4039 CA PRO B 614 175.221 137.516 180.256 1.00 45.02 C
ATOM 4040 C PRO B 614 174.733 138.556 179.255 1.00 45.02 C
ATOM 4041 O PRO B 614 173.602 138.445 178.788 1.00 45.02 O
ATOM 4042 CB PRO B 614 175.838 136.313 179.529 1.00 45.02 C
ATOM 4043 CG PRO B 614 175.152 135.096 180.095 1.00 45.02 C
ATOM 4044 CD PRO B 614 173.818 135.566 180.533 1.00 45.02 C
ATOM 4045 N SER B 615 175.563 139.541 178.920 1.00 45.88 N
ATOM 4046 CA SER B 615 175.144 140.644 178.066 1.00 45.88 C
ATOM 4047 C SER B 615 176.151 140.853 176.943 1.00 45.88 C
ATOM 4048 O SER B 615 177.186 140.187 176.866 1.00 45.88 O
ATOM 4049 CB SER B 615 174.979 141.936 178.869 1.00 45.88 C
ATOM 4050 OG SER B 615 176.235 142.407 179.315 1.00 45.88 O
ATOM 4051 N LEU B 616 175.826 141.799 176.066 1.00 41.00 N
ATOM 4052 CA LEU B 616 176.666 142.221 174.955 1.00 41.00 C

ATOM 4053 C LEU B 616 176.107 143.526 174.415 1.00 41.00 C
ATOM 4054 O LEU B 616 174.898 143.647 174.221 1.00 41.00 O
ATOM 4055 CB LEU B 616 176.707 141.163 173.849 1.00 41.00 C
ATOM 4056 CG LEU B 616 177.538 141.529 172.622 1.00 41.00 C
ATOM 4057 CD1 LEU B 616 179.016 141.372 172.913 1.00 41.00 C
ATOM 4058 CD2 LEU B 616 177.136 140.680 171.437 1.00 41.00 C
ATOM 4059 N LYS B 617 176.984 144.497 174.175 1.00 37.67 N
ATOM 4060 CA LYS B 617 176.547 145.816 173.748 1.00 37.67 C
ATOM 4061 C LYS B 617 177.562 146.392 172.776 1.00 37.67 C
ATOM 4062 O LYS B 617 178.766 146.187 172.938 1.00 37.67 O
ATOM 4063 CB LYS B 617 176.372 146.755 174.942 1.00 37.67 C
ATOM 4064 CG LYS B 617 175.293 146.323 175.917 1.00 37.67 C
ATOM 4065 CD LYS B 617 175.051 147.390 176.967 1.00 37.67 C
ATOM 4066 CE LYS B 617 173.799 147.099 177.766 1.00 37.67 C
ATOM 4067 NZ LYS B 617 172.590 147.095 176.907 1.00 37.67 N
ATOM 4068 N ILE B 618 177.071 147.118 171.774 1.00 34.20 N
ATOM 4069 CA ILE B 618 177.911 147.678 170.721 1.00 34.20 C
ATOM 4070 C ILE B 618 177.392 149.070 170.391 1.00 34.20 C
ATOM 4071 O ILE B 618 176.308 149.212 169.816 1.00 34.20 O
ATOM 4072 CB ILE B 618 177.929 146.795 169.471 1.00 34.20 C
ATOM 4073 CG1 ILE B 618 178.602 145.462 169.783 1.00 34.20 C
ATOM 4074 CG2 ILE B 618 178.650 147.494 168.348 1.00 34.20 C
ATOM 4075 CD1 ILE B 618 178.470 144.446 168.690 1.00 34.20 C
ATOM 4076 N PHE B 619 178.165 150.094 170.742 1.00 37.64 N
ATOM 4077 CA PHE B 619 177.808 151.483 170.484 1.00 37.64 C
ATOM 4078 C PHE B 619 178.607 151.998 169.297 1.00 37.64 C
ATOM 4079 O PHE B 619 179.832 151.847 169.257 1.00 37.64 O
ATOM 4080 CB PHE B 619 178.067 152.347 171.715 1.00 37.64 C
ATOM 4081 CG PHE B 619 177.487 151.786 172.973 1.00 37.64 C
ATOM 4082 CD1 PHE B 619 176.129 151.834 173.202 1.00 37.64 C
ATOM 4083 CD2 PHE B 619 178.298 151.202 173.922 1.00 37.64 C
ATOM 4084 CE1 PHE B 619 175.593 151.315 174.349 1.00 37.64 C
ATOM 4085 CE2 PHE B 619 177.764 150.682 175.072 1.00 37.64 C
ATOM 4086 CZ PHE B 619 176.410 150.737 175.285 1.00 37.64 C

ATOM 4087 N ILE B 620 177.922 152.607 168.345 1.00 45.33 N
ATOM 4088 CA ILE B 620 178.530 152.995 167.078 1.00 45.33 C
ATOM 4089 C ILE B 620 179.055 154.419 167.165 1.00 45.33 C
ATOM 4090 O ILE B 620 178.393 155.316 167.697 1.00 45.33 O
ATOM 4091 CB ILE B 620 177.527 152.840 165.923 1.00 45.33 C
ATOM 4092 CG1 ILE B 620 177.358 151.364 165.571 1.00 45.33 C
ATOM 4093 CG2 ILE B 620 177.993 153.619 164.717 1.00 45.33 C
ATOM 4094 CD1 ILE B 620 176.412 151.119 164.430 1.00 45.33 C
ATOM 4095 N ALA B 621 180.257 154.619 166.637 1.00 49.64 N
ATOM 4096 CA ALA B 621 180.938 155.907 166.563 1.00 49.64 C
ATOM 4097 C ALA B 621 181.510 156.097 165.169 1.00 49.64 C
ATOM 4098 O ALA B 621 182.685 156.420 164.987 1.00 49.64 O
ATOM 4099 CB ALA B 621 182.032 156.013 167.618 1.00 49.64 C
ATOM 4100 N GLY B 622 180.659 155.905 164.163 1.00 57.91 N
ATOM 4101 CA GLY B 622 181.071 155.659 162.794 1.00 57.91 C
ATOM 4102 C GLY B 622 182.310 156.382 162.318 1.00 57.91 C
ATOM 4103 O GLY B 622 182.474 157.584 162.547 1.00 57.91 O
ATOM 4104 N ASN B 623 183.196 155.640 161.661 1.00 59.66 N
ATOM 4105 CA ASN B 623 182.948 154.221 161.438 1.00 59.66 C
ATOM 4106 C ASN B 623 183.896 153.342 162.252 1.00 59.66 C
ATOM 4107 O ASN B 623 184.925 152.884 161.763 1.00 59.66 O
ATOM 4108 CB ASN B 623 183.069 153.888 159.952 1.00 59.66 C
ATOM 4109 CG ASN B 623 184.436 154.208 159.394 1.00 59.66 C
ATOM 4110 OD1 ASN B 623 185.111 155.122 159.863 1.00 59.66 O
ATOM 4111 ND2 ASN B 623 184.857 153.450 158.389 1.00 59.66 N
ATOM 4112 N SER B 624 183.516 153.108 163.504 1.00 51.74 N
ATOM 4113 CA SER B 624 184.213 152.211 164.413 1.00 51.74 C
ATOM 4114 C SER B 624 183.380 152.112 165.680 1.00 51.74 C
ATOM 4115 O SER B 624 182.877 153.125 166.166 1.00 51.74 O
ATOM 4116 CB SER B 624 185.625 152.717 164.724 1.00 51.74 C
ATOM 4117 OG SER B 624 186.292 151.840 165.610 1.00 51.74 O
ATOM 4118 N ALA B 625 183.233 150.902 166.207 1.00 46.41 N
ATOM 4119 CA ALA B 625 182.309 150.649 167.300 1.00 46.41 C
ATOM 4120 C ALA B 625 183.036 150.118 168.528 1.00 46.41 C

ATOM 4121 O ALA B 625 184.063 149.444 168.419 1.00 46.41 O
ATOM 4122 CB ALA B 625 181.226 149.655 166.879 1.00 46.41 C
ATOM 4123 N TYR B 626 182.490 150.434 169.700 1.00 39.35 N
ATOM 4124 CA TYR B 626 182.940 149.855 170.955 1.00 39.35 C
ATOM 4125 C TYR B 626 182.203 148.547 171.206 1.00 39.35 C
ATOM 4126 O TYR B 626 181.058 148.372 170.788 1.00 39.35 O
ATOM 4127 CB TYR B 626 182.690 150.803 172.128 1.00 39.35 C
ATOM 4128 CG TYR B 626 183.248 152.196 171.966 1.00 39.35 C
ATOM 4129 CD1 TYR B 626 182.534 153.176 171.297 1.00 39.35 C
ATOM 4130 CD2 TYR B 626 184.476 152.539 172.505 1.00 39.35 C
ATOM 4131 CE1 TYR B 626 183.034 154.451 171.156 1.00 39.35 C
ATOM 4132 CE2 TYR B 626 184.983 153.811 172.369 1.00 39.35 C
ATOM 4133 CZ TYR B 626 184.258 154.762 171.693 1.00 39.35 C
ATOM 4134 OH TYR B 626 184.759 156.032 171.553 1.00 39.35 O
ATOM 4135 N GLU B 627 182.864 147.629 171.904 1.00 43.34 N
ATOM 4136 CA GLU B 627 182.267 146.340 172.241 1.00 43.34 C
ATOM 4137 C GLU B 627 182.426 146.094 173.733 1.00 43.34 C
ATOM 4138 O GLU B 627 183.536 145.841 174.207 1.00 43.34 O
ATOM 4139 CB GLU B 627 182.898 145.207 171.440 1.00 43.34 C
ATOM 4140 CG GLU B 627 182.344 143.846 171.806 1.00 43.34 C
ATOM 4141 CD GLU B 627 182.960 142.723 171.005 1.00 43.34 C
ATOM 4142 OE1 GLU B 627 183.812 143.006 170.141 1.00 43.34 O
ATOM 4143 OE2 GLU B 627 182.593 141.555 171.240 1.00 43.34 O
ATOM 4144 N TYR B 628 181.318 146.155 174.465 1.00 39.64 N
ATOM 4145 CA TYR B 628 181.292 145.915 175.902 1.00 39.64 C
ATOM 4146 C TYR B 628 180.700 144.539 176.160 1.00 39.64 C
ATOM 4147 O TYR B 628 179.568 144.264 175.753 1.00 39.64 O
ATOM 4148 CB TYR B 628 180.474 146.986 176.620 1.00 39.64 C
ATOM 4149 CG TYR B 628 181.174 148.313 176.771 1.00 39.64 C
ATOM 4150 CD1 TYR B 628 181.944 148.586 177.884 1.00 39.64 C
ATOM 4151 CD2 TYR B 628 181.054 149.297 175.807 1.00 39.64 C
ATOM 4152 CE1 TYR B 628 182.581 149.793 178.030 1.00 39.64 C
ATOM 4153 CE2 TYR B 628 181.689 150.508 175.946 1.00 39.64 C
ATOM 4154 CZ TYR B 628 182.451 150.749 177.060 1.00 39.64 C

ATOM 4155 OH TYR B 628 183.087 151.956 177.208 1.00 39.64 O
ATOM 4156 N VAL B 629 181.456 143.682 176.839 1.00 42.23 N
ATOM 4157 CA VAL B 629 181.021 142.331 177.176 1.00 42.23 C
ATOM 4158 C VAL B 629 180.949 142.224 178.691 1.00 42.23 C
ATOM 4159 O VAL B 629 181.974 142.334 179.374 1.00 42.23 O
ATOM 4160 CB VAL B 629 181.964 141.264 176.602 1.00 42.23 C
ATOM 4161 CG1 VAL B 629 181.504 139.885 177.017 1.00 42.23 C
ATOM 4162 CG2 VAL B 629 182.018 141.368 175.099 1.00 42.23 C
ATOM 4163 N ASP B 630 179.744 142.003 179.213 1.00 46.94 N
ATOM 4164 CA ASP B 630 179.515 141.874 180.648 1.00 46.94 C
ATOM 4165 C ASP B 630 179.767 143.182 181.388 1.00 46.94 C
ATOM 4166 O ASP B 630 180.221 143.177 182.532 1.00 46.94 O
ATOM 4167 CB ASP B 630 180.370 140.759 181.250 1.00 46.94 C
ATOM 4168 CG ASP B 630 179.637 139.440 181.317 1.00 46.94 C
ATOM 4169 OD1 ASP B 630 178.509 139.363 180.793 1.00 46.94 O
ATOM 4170 OD2 ASP B 630 180.185 138.480 181.895 1.00 46.94 O
ATOM 4171 N TYR B 631 179.470 144.311 180.750 1.00 48.83 N
ATOM 4172 CA TYR B 631 179.667 145.623 181.353 1.00 48.83 C
ATOM 4173 C TYR B 631 181.148 145.870 181.649 1.00 48.83 C
ATOM 4174 O TYR B 631 181.549 146.154 182.776 1.00 48.83 O
ATOM 4175 CB TYR B 631 178.814 145.764 182.614 1.00 48.83 C
ATOM 4176 CG TYR B 631 177.349 145.501 182.367 1.00 48.83 C
ATOM 4177 CD1 TYR B 631 176.554 146.445 181.739 1.00 48.83 C
ATOM 4178 CD2 TYR B 631 176.764 144.305 182.745 1.00 48.83 C
ATOM 4179 CE1 TYR B 631 175.218 146.212 181.505 1.00 48.83 C
ATOM 4180 CE2 TYR B 631 175.428 144.062 182.512 1.00 48.83 C
ATOM 4181 CZ TYR B 631 174.661 145.019 181.890 1.00 48.83 C
ATOM 4182 OH TYR B 631 173.327 144.789 181.654 1.00 48.83 O
ATOM 4183 N LEU B 632 181.957 145.752 180.598 1.00 43.17 N
ATOM 4184 CA LEU B 632 183.393 145.989 180.657 1.00 43.17 C
ATOM 4185 C LEU B 632 183.925 146.120 179.240 1.00 43.17 C
ATOM 4186 O LEU B 632 183.545 145.345 178.362 1.00 43.17 O
ATOM 4187 CB LEU B 632 184.125 144.857 181.387 1.00 43.17 C
ATOM 4188 CG LEU B 632 183.927 144.733 182.893 1.00 43.17 C

ATOM 4189 CD1 LEU B 632 184.586 143.476 183.412 1.00 43.17 C
ATOM 4190 CD2 LEU B 632 184.502 145.945 183.580 1.00 43.17 C
ATOM 4191 N PHE B 633 184.801 147.097 179.026 1.00 43.52 N
ATOM 4192 CA PHE B 633 185.390 147.290 177.710 1.00 43.52 C
ATOM 4193 C PHE B 633 186.122 146.030 177.271 1.00 43.52 C
ATOM 4194 O PHE B 633 186.825 145.395 178.059 1.00 43.52 O
ATOM 4195 CB PHE B 633 186.351 148.478 177.733 1.00 43.52 C
ATOM 4196 CG PHE B 633 186.762 148.953 176.372 1.00 43.52 C
ATOM 4197 CD1 PHE B 633 185.841 149.521 175.516 1.00 43.52 C
ATOM 4198 CD2 PHE B 633 188.074 148.845 175.954 1.00 43.52 C
ATOM 4199 CE1 PHE B 633 186.217 149.960 174.270 1.00 43.52 C
ATOM 4200 CE2 PHE B 633 188.453 149.285 174.708 1.00 43.52 C
ATOM 4201 CZ PHE B 633 187.523 149.843 173.866 1.00 43.52 C
ATOM 4202 N LYS B 634 185.946 145.663 176.002 1.00 47.30 N
ATOM 4203 CA LYS B 634 186.602 144.486 175.441 1.00 47.30 C
ATOM 4204 C LYS B 634 187.600 144.852 174.351 1.00 47.30 C
ATOM 4205 O LYS B 634 188.779 144.506 174.464 1.00 47.30 O
ATOM 4206 CB LYS B 634 185.552 143.511 174.904 1.00 47.30 C
ATOM 4207 CG LYS B 634 186.113 142.172 174.491 1.00 47.30 C
ATOM 4208 CD LYS B 634 186.786 141.478 175.655 1.00 47.30 C
ATOM 4209 CE LYS B 634 186.578 139.979 175.581 1.00 47.30 C
ATOM 4210 NZ LYS B 634 186.782 139.473 174.200 1.00 47.30 N
ATOM 4211 N ARG B 635 187.169 145.542 173.298 1.00 49.57 N
ATOM 4212 CA ARG B 635 188.073 145.952 172.231 1.00 49.57 C
ATOM 4213 C ARG B 635 187.276 146.746 171.203 1.00 49.57 C
ATOM 4214 O ARG B 635 186.047 146.836 171.275 1.00 49.57 O
ATOM 4215 CB ARG B 635 188.761 144.756 171.581 1.00 49.57 C
ATOM 4216 CG ARG B 635 187.907 144.017 170.572 1.00 49.57 C
ATOM 4217 CD ARG B 635 188.626 142.781 170.065 1.00 49.57 C
ATOM 4218 NE ARG B 635 188.033 142.271 168.836 1.00 49.57 N
ATOM 4219 CZ ARG B 635 186.876 141.623 168.782 1.00 49.57 C
ATOM 4220 NH1 ARG B 635 186.187 141.404 169.892 1.00 49.57 N
ATOM 4221 NH2 ARG B 635 186.408 141.193 167.620 1.00 49.57 N
ATOM 4222 N MET B 636 187.995 147.316 170.239 1.00 49.26 N

ATOM 4223 CA MET B 636 187.399 148.156 169.207 1.00 49.26 C
ATOM 4224 C MET B 636 187.085 147.312 167.979 1.00 49.26 C
ATOM 4225 O MET B 636 187.986 146.715 167.381 1.00 49.26 O
ATOM 4226 CB MET B 636 188.338 149.303 168.841 1.00 49.26 C
ATOM 4227 CG MET B 636 188.170 150.542 169.695 1.00 49.26 C
ATOM 4228 SD MET B 636 186.767 151.543 169.184 1.00 49.26 S
ATOM 4229 CE MET B 636 187.199 153.113 169.917 1.00 49.26 C
ATOM 4230 N ILE B 637 185.817 147.266 167.606 1.00 53.84 N
ATOM 4231 CA ILE B 637 185.373 146.512 166.445 1.00 53.84 C
ATOM 4232 C ILE B 637 185.409 147.417 165.221 1.00 53.84 C
ATOM 4233 O ILE B 637 185.498 148.641 165.323 1.00 53.84 O
ATOM 4234 CB ILE B 637 183.964 145.931 166.664 1.00 53.84 C
ATOM 4235 CG1 ILE B 637 183.801 144.623 165.901 1.00 53.84 C
ATOM 4236 CG2 ILE B 637 182.911 146.920 166.215 1.00 53.84 C
ATOM 4237 CD1 ILE B 637 182.519 143.900 166.222 1.00 53.84 C
ATOM 4238 N ASP B 638 185.350 146.804 164.043 1.00 62.97 N
ATOM 4239 CA ASP B 638 185.278 147.522 162.779 1.00 62.97 C
ATOM 4240 C ASP B 638 183.966 147.193 162.082 1.00 62.97 C
ATOM 4241 O ASP B 638 183.514 146.045 162.102 1.00 62.97 O
ATOM 4242 CB ASP B 638 186.457 147.165 161.873 1.00 62.97 C
ATOM 4243 CG ASP B 638 186.662 145.669 161.751 1.00 62.97 C
ATOM 4244 OD1 ASP B 638 185.703 144.960 161.387 1.00 62.97 O
ATOM 4245 OD2 ASP B 638 187.787 145.199 162.023 1.00 62.97 O
ATOM 4246 N LEU B 639 183.357 148.199 161.456 1.00 62.54 N
ATOM 4247 CA LEU B 639 182.012 148.055 160.904 1.00 62.54 C
ATOM 4248 C LEU B 639 182.034 147.264 159.595 1.00 62.54 C
ATOM 4249 O LEU B 639 181.624 147.731 158.534 1.00 62.54 O
ATOM 4250 CB LEU B 639 181.373 149.423 160.705 1.00 62.54 C
ATOM 4251 CG LEU B 639 180.844 150.097 161.965 1.00 62.54 C
ATOM 4252 CD1 LEU B 639 180.167 151.407 161.614 1.00 62.54 C
ATOM 4253 CD2 LEU B 639 179.890 149.174 162.695 1.00 62.54 C
ATOM 4254 N SER B 640 182.530 146.031 159.693 1.00 67.22 N
ATOM 4255 CA SER B 640 182.469 145.100 158.577 1.00 67.22 C
ATOM 4256 C SER B 640 182.119 143.684 159.003 1.00 67.22 C

ATOM 4257 O SER B 640 182.080 142.796 158.147 1.00 67.22 O
ATOM 4258 CB SER B 640 183.797 145.090 157.804 1.00 67.22 C
ATOM 4259 OG SER B 640 184.031 146.342 157.183 1.00 67.22 O
ATOM 4260 N SER B 641 181.868 143.442 160.284 1.00 64.94 N
ATOM 4261 CA SER B 641 181.333 142.172 160.747 1.00 64.94 C
ATOM 4262 C SER B 641 179.857 142.272 161.097 1.00 64.94 C
ATOM 4263 O SER B 641 179.323 141.384 161.768 1.00 64.94 O
ATOM 4264 CB SER B 641 182.130 141.669 161.952 1.00 64.94 C
ATOM 4265 OG SER B 641 181.711 140.368 162.330 1.00 64.94 O
ATOM 4266 N ILE B 642 179.191 143.337 160.656 1.00 54.96 N
ATOM 4267 CA ILE B 642 177.780 143.576 160.928 1.00 54.96 C
ATOM 4268 C ILE B 642 177.115 143.860 159.590 1.00 54.96 C
ATOM 4269 O ILE B 642 177.349 144.914 158.988 1.00 54.96 O
ATOM 4270 CB ILE B 642 177.571 144.741 161.902 1.00 54.96 C
ATOM 4271 CG1 ILE B 642 178.374 144.510 163.179 1.00 54.96 C
ATOM 4272 CG2 ILE B 642 176.106 144.901 162.225 1.00 54.96 C
ATOM 4273 CD1 ILE B 642 178.438 145.716 164.070 1.00 54.96 C
ATOM 4274 N SER B 643 176.289 142.928 159.125 1.00 54.47 N
ATOM 4275 CA SER B 643 175.723 143.018 157.787 1.00 54.47 C
ATOM 4276 C SER B 643 174.549 143.986 157.766 1.00 54.47 C
ATOM 4277 O SER B 643 173.626 143.872 158.575 1.00 54.47 O
ATOM 4278 CB SER B 643 175.277 141.639 157.309 1.00 54.47 C
ATOM 4279 OG SER B 643 174.105 141.228 157.983 1.00 54.47 O
ATOM 4280 N THR B 644 174.584 144.931 156.832 1.00 58.22 N
ATOM 4281 CA THR B 644 173.540 145.936 156.719 1.00 58.22 C
ATOM 4282 C THR B 644 172.220 145.290 156.307 1.00 58.22 C
ATOM 4283 O THR B 644 172.134 144.089 156.046 1.00 58.22 O
ATOM 4284 CB THR B 644 173.948 147.009 155.718 1.00 58.22 C
ATOM 4285 OG1 THR B 644 174.530 146.385 154.570 1.00 58.22 O
ATOM 4286 CG2 THR B 644 174.964 147.941 156.337 1.00 58.22 C
ATOM 4287 N VAL B 645 171.173 146.107 156.247 1.00 63.43 N
ATOM 4288 CA VAL B 645 169.844 145.642 155.875 1.00 63.43 C
ATOM 4289 C VAL B 645 169.497 146.009 154.438 1.00 63.43 C
ATOM 4290 O VAL B 645 168.906 145.202 153.721 1.00 63.43 O

ATOM 4291 CB VAL B 645 168.783 146.188 156.852 1.00 63.43 C
ATOM 4292 CG1 VAL B 645 167.395 145.884 156.335 1.00 63.43 C
ATOM 4293 CG2 VAL B 645 168.964 145.570 158.218 1.00 63.43 C
ATOM 4294 N ASP B 646 169.849 147.219 153.998 1.00 75.17 N
ATOM 4295 CA ASP B 646 169.496 147.631 152.643 1.00 75.17 C
ATOM 4296 C ASP B 646 170.048 146.657 151.611 1.00 75.17 C
ATOM 4297 O ASP B 646 169.295 146.096 150.807 1.00 75.17 O
ATOM 4298 CB ASP B 646 170.004 149.042 152.359 1.00 75.17 C
ATOM 4299 CG ASP B 646 169.652 149.506 150.961 1.00 75.17 C
ATOM 4300 OD1 ASP B 646 168.762 148.890 150.339 1.00 75.17 O
ATOM 4301 OD2 ASP B 646 170.268 150.479 150.480 1.00 75.17 O
ATOM 4302 N SER B 647 171.363 146.447 151.612 1.00 79.06 N
ATOM 4303 CA SER B 647 171.954 145.505 150.674 1.00 79.06 C
ATOM 4304 C SER B 647 171.838 144.084 151.204 1.00 79.06 C
ATOM 4305 O SER B 647 172.822 143.337 151.222 1.00 79.06 O
ATOM 4306 CB SER B 647 173.420 145.854 150.412 1.00 79.06 C
ATOM 4307 OG SER B 647 174.138 144.718 149.959 1.00 79.06 O
ATOM 4308 N MET B 648 170.634 143.705 151.638 1.00 79.37 N
ATOM 4309 CA MET B 648 170.338 142.311 151.963 1.00 79.37 C
ATOM 4310 C MET B 648 168.821 142.132 151.918 1.00 79.37 C
ATOM 4311 O MET B 648 168.127 142.468 152.881 1.00 79.37 O
ATOM 4312 CB MET B 648 170.904 141.911 153.315 1.00 79.37 C
ATOM 4313 CG MET B 648 172.374 141.542 153.297 1.00 79.37 C
ATOM 4314 SD MET B 648 172.914 140.884 154.883 1.00 79.37 S
ATOM 4315 CE MET B 648 171.967 139.367 154.952 1.00 79.37 C
ATOM 4316 N ILE B 649 168.326 141.610 150.801 1.00 86.72 N
ATOM 4317 CA ILE B 649 166.970 141.089 150.727 1.00 86.72 C
ATOM 4318 C ILE B 649 166.960 139.577 150.582 1.00 86.72 C
ATOM 4319 O ILE B 649 165.894 138.963 150.747 1.00 86.72 O
ATOM 4320 CB ILE B 649 166.173 141.739 149.578 1.00 86.72 C
ATOM 4321 CG1 ILE B 649 166.386 143.252 149.557 1.00 86.72 C
ATOM 4322 CG2 ILE B 649 164.696 141.417 149.709 1.00 86.72 C
ATOM 4323 CD1 ILE B 649 165.683 143.945 148.413 1.00 86.72 C
ATOM 4324 N ALA B 650 168.099 138.962 150.293 1.00 90.45 N

ATOM 4325 CA ALA B 650 168.171 137.531 150.044 1.00 90.45 C
ATOM 4326 C ALA B 650 168.001 136.777 151.359 1.00 90.45 C
ATOM 4327 O ALA B 650 167.710 137.350 152.412 1.00 90.45 O
ATOM 4328 CB ALA B 650 169.483 137.182 149.348 1.00 90.45 C
ATOM 4329 N LEU B 651 168.180 135.462 151.298 1.00 89.48 N
ATOM 4330 CA LEU B 651 167.939 134.617 152.456 1.00 89.48 C
ATOM 4331 C LEU B 651 168.873 134.975 153.606 1.00 89.48 C
ATOM 4332 O LEU B 651 169.964 135.520 153.417 1.00 89.48 O
ATOM 4333 CB LEU B 651 168.101 133.144 152.079 1.00 89.48 C
ATOM 4334 CG LEU B 651 169.513 132.635 151.779 1.00 89.48 C
ATOM 4335 CD1 LEU B 651 169.515 131.119 151.680 1.00 89.48 C
ATOM 4336 CD2 LEU B 651 170.059 133.254 150.503 1.00 89.48 C
ATOM 4337 N ASP B 652 168.415 134.653 154.813 1.00 81.96 N
ATOM 4338 CA ASP B 652 169.127 134.858 156.070 1.00 81.96 C
ATOM 4339 C ASP B 652 169.175 133.511 156.785 1.00 81.96 C
ATOM 4340 O ASP B 652 168.707 133.352 157.912 1.00 81.96 O
ATOM 4341 CB ASP B 652 168.476 135.935 156.935 1.00 81.96 C
ATOM 4342 CG ASP B 652 166.977 135.783 157.019 1.00 81.96 C
ATOM 4343 OD1 ASP B 652 166.475 134.676 156.736 1.00 81.96 O
ATOM 4344 OD2 ASP B 652 166.300 136.772 157.367 1.00 81.96 O
ATOM 4345 N ILE B 653 169.778 132.532 156.110 1.00 84.10 N
ATOM 4346 CA ILE B 653 169.284 131.162 156.018 1.00 84.10 C
ATOM 4347 C ILE B 653 168.516 130.746 157.263 1.00 84.10 C
ATOM 4348 O ILE B 653 167.420 130.185 157.157 1.00 84.10 O
ATOM 4349 CB ILE B 653 170.452 130.189 155.763 1.00 84.10 C
ATOM 4350 CG1 ILE B 653 171.630 130.515 156.684 1.00 84.10 C
ATOM 4351 CG2 ILE B 653 170.889 130.248 154.311 1.00 84.10 C
ATOM 4352 CD1 ILE B 653 172.600 129.368 156.868 1.00 84.10 C
ATOM 4353 N ASP B 654 169.058 131.009 158.437 1.00 75.25 N
ATOM 4354 CA ASP B 654 168.206 130.770 159.590 1.00 75.25 C
ATOM 4355 C ASP B 654 168.795 131.356 160.863 1.00 75.25 C
ATOM 4356 O ASP B 654 169.979 131.153 161.155 1.00 75.25 O
ATOM 4357 CB ASP B 654 167.956 129.272 159.765 1.00 75.25 C
ATOM 4358 CG ASP B 654 169.213 128.448 159.589 1.00 75.25 C

ATOM 4359 OD1 ASP B 654 170.071 128.841 158.771 1.00 75.25 O
ATOM 4360 OD2 ASP B 654 169.343 127.405 160.263 1.00 75.25 O
ATOM 4361 N PRO B 655 168.004 132.086 161.639 1.00 63.65 N
ATOM 4362 CA PRO B 655 168.391 132.375 163.020 1.00 63.65 C
ATOM 4363 C PRO B 655 168.432 131.086 163.826 1.00 63.65 C
ATOM 4364 O PRO B 655 167.969 130.032 163.390 1.00 63.65 O
ATOM 4365 CB PRO B 655 167.292 133.322 163.503 1.00 63.65 C
ATOM 4366 CG PRO B 655 166.741 133.924 162.240 1.00 63.65 C
ATOM 4367 CD PRO B 655 166.798 132.825 161.236 1.00 63.65 C
ATOM 4368 N LEU B 656 168.995 131.175 165.027 1.00 51.88 N
ATOM 4369 CA LEU B 656 169.348 129.983 165.783 1.00 51.88 C
ATOM 4370 C LEU B 656 168.407 129.678 166.945 1.00 51.88 C
ATOM 4371 O LEU B 656 168.678 128.746 167.708 1.00 51.88 O
ATOM 4372 CB LEU B 656 170.782 130.089 166.295 1.00 51.88 C
ATOM 4373 CG LEU B 656 171.792 129.290 165.482 1.00 51.88 C
ATOM 4374 CD1 LEU B 656 173.121 129.266 166.195 1.00 51.88 C
ATOM 4375 CD2 LEU B 656 171.276 127.889 165.261 1.00 51.88 C
ATOM 4376 N GLU B 657 167.311 130.415 167.105 1.00 50.59 N
ATOM 4377 CA GLU B 657 166.329 130.087 168.138 1.00 50.59 C
ATOM 4378 C GLU B 657 166.976 130.105 169.528 1.00 50.59 C
ATOM 4379 O GLU B 657 167.091 129.090 170.213 1.00 50.59 O
ATOM 4380 CB GLU B 657 165.689 128.728 167.840 1.00 50.59 C
ATOM 4381 CG GLU B 657 164.699 128.242 168.873 1.00 50.59 C
ATOM 4382 CD GLU B 657 163.784 127.165 168.327 1.00 50.59 C
ATOM 4383 OE1 GLU B 657 163.321 127.305 167.177 1.00 50.59 O
ATOM 4384 OE2 GLU B 657 163.528 126.176 169.041 1.00 50.59 O
ATOM 4385 N ASN B 658 167.417 131.300 169.914 1.00 47.73 N
ATOM 4386 CA ASN B 658 168.121 131.484 171.174 1.00 47.73 C
ATOM 4387 C ASN B 658 167.183 131.293 172.363 1.00 47.73 C
ATOM 4388 O ASN B 658 165.958 131.336 172.238 1.00 47.73 O
ATOM 4389 CB ASN B 658 168.746 132.875 171.235 1.00 47.73 C
ATOM 4390 CG ASN B 658 169.626 133.164 170.048 1.00 47.73 C
ATOM 4391 OD1 ASN B 658 170.352 132.295 169.576 1.00 47.73 O
ATOM 4392 ND2 ASN B 658 169.568 134.391 169.555 1.00 47.73 N

ATOM 4393 N THR B 659 167.781 131.082 173.534 1.00 49.56 N
ATOM 4394 CA THR B 659 167.054 130.892 174.781 1.00 49.56 C
ATOM 4395 C THR B 659 167.619 131.823 175.845 1.00 49.56 C
ATOM 4396 O THR B 659 168.526 132.619 175.590 1.00 49.56 O
ATOM 4397 CB THR B 659 167.122 129.436 175.255 1.00 49.56 C
ATOM 4398 OG1 THR B 659 166.362 129.289 176.458 1.00 49.56 O
ATOM 4399 CG2 THR B 659 168.555 129.041 175.526 1.00 49.56 C
ATOM 4400 N ASP B 660 167.072 131.715 177.055 1.00 54.68 N
ATOM 4401 CA ASP B 660 167.443 132.591 178.161 1.00 54.68 C
ATOM 4402 C ASP B 660 166.994 131.983 179.485 1.00 54.68 C
ATOM 4403 O ASP B 660 165.808 131.698 179.665 1.00 54.68 O
ATOM 4404 CB ASP B 660 166.823 133.973 177.973 1.00 54.68 C
ATOM 4405 CG ASP B 660 167.447 135.009 178.867 1.00 54.68 C
ATOM 4406 OD1 ASP B 660 167.885 134.642 179.974 1.00 54.68 O
ATOM 4407 OD2 ASP B 660 167.511 136.186 178.460 1.00 54.68 O
ATOM 4408 N PHE B 661 167.921 131.787 180.424 1.00 54.71 N
ATOM 4409 CA PHE B 661 167.621 131.009 181.616 1.00 54.71 C
ATOM 4410 C PHE B 661 167.428 131.833 182.879 1.00 54.71 C
ATOM 4411 O PHE B 661 166.890 131.305 183.855 1.00 54.71 O
ATOM 4412 CB PHE B 661 168.725 129.973 181.866 1.00 54.71 C
ATOM 4413 CG PHE B 661 168.647 128.780 180.961 1.00 54.71 C
ATOM 4414 CD1 PHE B 661 167.642 127.848 181.112 1.00 54.71 C
ATOM 4415 CD2 PHE B 661 169.576 128.596 179.957 1.00 54.71 C
ATOM 4416 CE1 PHE B 661 167.568 126.754 180.280 1.00 54.71 C
ATOM 4417 CE2 PHE B 661 169.503 127.503 179.125 1.00 54.71 C
ATOM 4418 CZ PHE B 661 168.498 126.582 179.287 1.00 54.71 C
ATOM 4419 N ARG B 662 167.844 133.098 182.896 1.00 59.66 N
ATOM 4420 CA ARG B 662 167.648 133.916 184.089 1.00 59.66 C
ATOM 4421 C ARG B 662 166.232 134.475 184.148 1.00 59.66 C
ATOM 4422 O ARG B 662 165.505 134.259 185.125 1.00 59.66 O
ATOM 4423 CB ARG B 662 168.675 135.049 184.129 1.00 59.66 C
ATOM 4424 CG ARG B 662 170.119 134.585 184.156 1.00 59.66 C
ATOM 4425 CD ARG B 662 170.553 134.208 185.558 1.00 59.66 C
ATOM 4426 NE ARG B 662 171.888 134.709 185.870 1.00 59.66 N

ATOM 4427 CZ ARG B 662 173.014 134.119 185.486 1.00 59.66 C
ATOM 4428 NH1 ARG B 662 172.967 133.004 184.772 1.00 59.66 N
ATOM 4429 NH2 ARG B 662 174.187 134.642 185.815 1.00 59.66 N
ATOM 4430 N VAL B 663 165.822 135.200 183.106 1.00 59.08 N
ATOM 4431 CA VAL B 663 164.486 135.785 183.103 1.00 59.08 C
ATOM 4432 C VAL B 663 163.424 134.699 183.108 1.00 59.08 C
ATOM 4433 O VAL B 663 162.341 134.882 183.674 1.00 59.08 O
ATOM 4434 CB VAL B 663 164.313 136.732 181.901 1.00 59.08 C
ATOM 4435 CG1 VAL B 663 165.361 137.825 181.937 1.00 59.08 C
ATOM 4436 CG2 VAL B 663 164.376 135.958 180.606 1.00 59.08 C
ATOM 4437 N LEU B 664 163.701 133.556 182.480 1.00 57.60 N
ATOM 4438 CA LEU B 664 162.742 132.460 182.519 1.00 57.60 C
ATOM 4439 C LEU B 664 162.516 131.983 183.947 1.00 57.60 C
ATOM 4440 O LEU B 664 161.379 131.723 184.351 1.00 57.60 O
ATOM 4441 CB LEU B 664 163.218 131.311 181.636 1.00 57.60 C
ATOM 4442 CG LEU B 664 162.892 131.441 180.152 1.00 57.60 C
ATOM 4443 CD1 LEU B 664 163.146 130.130 179.440 1.00 57.60 C
ATOM 4444 CD2 LEU B 664 161.455 131.873 179.977 1.00 57.60 C
ATOM 4445 N GLU B 665 163.589 131.867 184.731 1.00 63.50 N
ATOM 4446 CA GLU B 665 163.432 131.491 186.131 1.00 63.50 C
ATOM 4447 C GLU B 665 162.710 132.578 186.910 1.00 63.50 C
ATOM 4448 O GLU B 665 161.874 132.283 187.772 1.00 63.50 O
ATOM 4449 CB GLU B 665 164.795 131.205 186.756 1.00 63.50 C
ATOM 4450 CG GLU B 665 165.512 130.020 186.149 1.00 63.50 C
ATOM 4451 CD GLU B 665 166.877 129.796 186.760 1.00 63.50 C
ATOM 4452 OE1 GLU B 665 167.486 130.777 187.234 1.00 63.50 O
ATOM 4453 OE2 GLU B 665 167.341 128.638 186.769 1.00 63.50 O
ATOM 4454 N LEU B 666 163.017 133.844 186.623 1.00 66.79 N
ATOM 4455 CA LEU B 666 162.322 134.938 187.293 1.00 66.79 C
ATOM 4456 C LEU B 666 160.823 134.892 187.035 1.00 66.79 C
ATOM 4457 O LEU B 666 160.030 135.167 187.940 1.00 66.79 O
ATOM 4458 CB LEU B 666 162.898 136.275 186.836 1.00 66.79 C
ATOM 4459 CG LEU B 666 162.409 137.535 187.545 1.00 66.79 C
ATOM 4460 CD1 LEU B 666 163.477 138.608 187.486 1.00 66.79 C

ATOM 4461 CD2 LEU B 666 161.125 138.034 186.917 1.00 66.79 C
ATOM 4462 N TYR B 667 160.418 134.549 185.815 1.00 64.73 N
ATOM 4463 CA TYR B 667 159.007 134.465 185.465 1.00 64.73 C
ATOM 4464 C TYR B 667 158.367 133.146 185.869 1.00 64.73 C
ATOM 4465 O TYR B 667 157.136 133.048 185.866 1.00 64.73 O
ATOM 4466 CB TYR B 667 158.819 134.655 183.958 1.00 64.73 C
ATOM 4467 CG TYR B 667 158.988 136.072 183.472 1.00 64.73 C
ATOM 4468 CD1 TYR B 667 158.299 137.116 184.062 1.00 64.73 C
ATOM 4469 CD2 TYR B 667 159.828 136.363 182.411 1.00 64.73 C
ATOM 4470 CE1 TYR B 667 158.448 138.409 183.612 1.00 64.73 C
ATOM 4471 CE2 TYR B 667 159.985 137.652 181.957 1.00 64.73 C
ATOM 4472 CZ TYR B 667 159.291 138.671 182.560 1.00 64.73 C
ATOM 4473 OH TYR B 667 159.444 139.957 182.108 1.00 64.73 O
ATOM 4474 N SER B 668 159.167 132.129 186.195 1.00 71.63 N
ATOM 4475 CA SER B 668 158.606 130.835 186.575 1.00 71.63 C
ATOM 4476 C SER B 668 157.714 130.967 187.801 1.00 71.63 C
ATOM 4477 O SER B 668 156.509 130.700 187.744 1.00 71.63 O
ATOM 4478 CB SER B 668 159.731 129.835 186.835 1.00 71.63 C
ATOM 4479 OG SER B 668 160.152 129.892 188.186 1.00 71.63 O
ATOM 4480 N GLN B 669 158.297 131.375 188.929 1.00 78.96 N
ATOM 4481 CA GLN B 669 157.540 131.606 190.158 1.00 78.96 C
ATOM 4482 C GLN B 669 156.809 132.937 190.021 1.00 78.96 C
ATOM 4483 O GLN B 669 157.198 133.965 190.578 1.00 78.96 O
ATOM 4484 CB GLN B 669 158.462 131.583 191.371 1.00 78.96 C
ATOM 4485 CG GLN B 669 159.775 132.331 191.187 1.00 78.96 C
ATOM 4486 CD GLN B 669 159.737 133.737 191.751 1.00 78.96 C
ATOM 4487 OE1 GLN B 669 158.866 134.074 192.549 1.00 78.96 O
ATOM 4488 NE2 GLN B 669 160.692 134.563 191.345 1.00 78.96 N
ATOM 4489 N LYS B 670 155.719 132.912 189.257 1.00 81.07 N
ATOM 4490 CA LYS B 670 154.998 134.132 188.899 1.00 81.07 C
ATOM 4491 C LYS B 670 153.578 134.073 189.448 1.00 81.07 C
ATOM 4492 O LYS B 670 152.632 133.689 188.758 1.00 81.07 O
ATOM 4493 CB LYS B 670 155.003 134.347 187.388 1.00 81.07 C
ATOM 4494 CG LYS B 670 154.553 135.738 186.971 1.00 81.07 C

ATOM 4495 CD LYS B 670 155.144 136.819 187.868 1.00 81.07 C
ATOM 4496 CE LYS B 670 156.621 136.579 188.154 1.00 81.07 C
ATOM 4497 NZ LYS B 670 157.128 137.437 189.261 1.00 81.07 N
ATOM 4498 N GLU B 671 153.442 134.462 190.710 1.00 92.28 N
ATOM 4499 CA GLU B 671 152.184 134.948 191.254 1.00 92.28 C
ATOM 4500 C GLU B 671 152.365 136.206 192.086 1.00 92.28 C
ATOM 4501 O GLU B 671 151.402 136.970 192.234 1.00 92.28 O
ATOM 4502 CB GLU B 671 151.493 133.863 192.094 1.00 92.28 C
ATOM 4503 CG GLU B 671 150.619 132.927 191.265 1.00 92.28 C
ATOM 4504 CD GLU B 671 150.129 131.724 192.046 1.00 92.28 C
ATOM 4505 OE1 GLU B 671 149.162 131.872 192.822 1.00 92.28 O
ATOM 4506 OE2 GLU B 671 150.701 130.627 191.874 1.00 92.28 O
ATOM 4507 N LEU B 672 153.557 136.447 192.625 1.00 90.54 N
ATOM 4508 CA LEU B 672 153.974 137.768 193.085 1.00 90.54 C
ATOM 4509 C LEU B 672 154.542 138.487 191.867 1.00 90.54 C
ATOM 4510 O LEU B 672 155.658 138.206 191.427 1.00 90.54 O
ATOM 4511 CB LEU B 672 154.995 137.656 194.213 1.00 90.54 C
ATOM 4512 CG LEU B 672 156.405 137.167 193.859 1.00 90.54 C
ATOM 4513 CD1 LEU B 672 157.385 137.473 194.979 1.00 90.54 C
ATOM 4514 CD2 LEU B 672 156.397 135.680 193.545 1.00 90.54 C
ATOM 4515 N ARG B 673 153.768 139.415 191.309 1.00 82.28 N
ATOM 4516 CA ARG B 673 154.111 139.974 190.009 1.00 82.28 C
ATOM 4517 C ARG B 673 155.302 140.920 190.094 1.00 82.28 C
ATOM 4518 O ARG B 673 155.159 142.134 189.921 1.00 82.28 O
ATOM 4519 CB ARG B 673 152.906 140.688 189.400 1.00 82.28 C
ATOM 4520 CG ARG B 673 152.374 141.836 190.228 1.00 82.28 C
ATOM 4521 CD ARG B 673 150.971 142.187 189.788 1.00 82.28 C
ATOM 4522 NE ARG B 673 150.117 141.007 189.748 1.00 82.28 N
ATOM 4523 CZ ARG B 673 148.889 140.996 189.247 1.00 82.28 C
ATOM 4524 NH1 ARG B 673 148.372 142.104 188.738 1.00 82.28 N
ATOM 4525 NH2 ARG B 673 148.179 139.877 189.251 1.00 82.28 N
ATOM 4526 N SER B 674 156.486 140.362 190.356 1.00 81.50 N
ATOM 4527 CA SER B 674 157.748 141.073 190.207 1.00 81.50 C
ATOM 4528 C SER B 674 158.286 140.974 188.790 1.00 81.50 C

ATOM 4529 O SER B 674 159.499 141.097 188.573 1.00 81.50 O
ATOM 4530 CB SER B 674 158.779 140.544 191.204 1.00 81.50 C
ATOM 4531 OG SER B 674 159.149 139.211 190.896 1.00 81.50 O
ATOM 4532 N SER B 675 157.403 140.744 187.820 1.00 71.50 N
ATOM 4533 CA SER B 675 157.830 140.360 186.481 1.00 71.50 C
ATOM 4534 C SER B 675 158.663 141.450 185.819 1.00 71.50 C
ATOM 4535 O SER B 675 159.786 141.192 185.371 1.00 71.50 O
ATOM 4536 CB SER B 675 156.608 140.022 185.628 1.00 71.50 C
ATOM 4537 OG SER B 675 155.866 138.958 186.194 1.00 71.50 O
ATOM 4538 N ASN B 676 158.129 142.668 185.740 1.00 69.14 N
ATOM 4539 CA ASN B 676 158.744 143.728 184.949 1.00 69.14 C
ATOM 4540 C ASN B 676 160.258 143.718 185.105 1.00 69.14 C
ATOM 4541 O ASN B 676 160.781 143.770 186.221 1.00 69.14 O
ATOM 4542 CB ASN B 676 158.187 145.091 185.364 1.00 69.14 C
ATOM 4543 CG ASN B 676 158.517 146.183 184.362 1.00 69.14 C
ATOM 4544 OD1 ASN B 676 158.017 146.181 183.238 1.00 69.14 O
ATOM 4545 ND2 ASN B 676 159.373 147.120 184.763 1.00 69.14 N
ATOM 4546 N VAL B 677 160.928 143.438 184.003 1.00 66.21 N
ATOM 4547 CA VAL B 677 162.354 143.343 184.022 1.00 66.21 C
ATOM 4548 C VAL B 677 163.002 144.538 183.380 1.00 66.21 C
ATOM 4549 O VAL B 677 163.621 145.316 184.078 1.00 66.21 O
ATOM 4550 CB VAL B 677 162.835 142.068 183.330 1.00 66.21 C
ATOM 4551 CG1 VAL B 677 163.011 140.960 184.346 1.00 66.21 C
ATOM 4552 CG2 VAL B 677 161.850 141.649 182.263 1.00 66.21 C
ATOM 4553 N PHE B 678 162.813 144.747 182.084 1.00 59.19 N
ATOM 4554 CA PHE B 678 163.535 145.846 181.494 1.00 59.19 C
ATOM 4555 C PHE B 678 162.999 146.770 180.407 1.00 59.19 C
ATOM 4556 O PHE B 678 163.493 147.891 180.337 1.00 59.19 O
ATOM 4557 CB PHE B 678 164.845 145.293 180.997 1.00 59.19 C
ATOM 4558 CG PHE B 678 165.977 145.545 181.910 1.00 59.19 C
ATOM 4559 CD1 PHE B 678 166.080 146.727 182.564 1.00 59.19 C
ATOM 4560 CD2 PHE B 678 166.918 144.589 182.121 1.00 59.19 C
ATOM 4561 CE1 PHE B 678 167.123 146.968 183.416 1.00 59.19 C
ATOM 4562 CE2 PHE B 678 167.966 144.813 182.966 1.00 59.19 C

ATOM 4563 CZ PHE B 678 168.072 146.009 183.622 1.00 59.19 C
ATOM 4564 N ASP B 679 162.011 146.345 179.614 1.00 58.15 N
ATOM 4565 CA ASP B 679 161.506 147.102 178.451 1.00 58.15 C
ATOM 4566 C ASP B 679 162.715 147.469 177.651 1.00 58.15 C
ATOM 4567 O ASP B 679 162.988 148.641 177.448 1.00 58.15 O
ATOM 4568 CB ASP B 679 160.739 148.364 178.786 1.00 58.15 C
ATOM 4569 CG ASP B 679 159.894 148.193 179.935 1.00 58.15 C
ATOM 4570 OD1 ASP B 679 159.483 147.054 180.157 1.00 58.15 O
ATOM 4571 OD2 ASP B 679 159.648 149.183 180.625 1.00 58.15 O
ATOM 4572 N LEU B 680 163.412 146.450 177.154 1.00 57.21 N
ATOM 4573 CA LEU B 680 164.686 146.618 176.450 1.00 57.21 C
ATOM 4574 C LEU B 680 164.841 147.771 175.503 1.00 57.21 C
ATOM 4575 O LEU B 680 165.874 148.422 175.552 1.00 57.21 O
ATOM 4576 CB LEU B 680 165.285 145.316 175.961 1.00 57.21 C
ATOM 4577 CG LEU B 680 166.162 144.990 177.159 1.00 57.21 C
ATOM 4578 CD1 LEU B 680 166.200 143.530 177.537 1.00 57.21 C
ATOM 4579 CD2 LEU B 680 167.534 145.608 177.095 1.00 57.21 C
ATOM 4580 N GLU B 681 163.837 148.039 174.677 1.00 59.13 N
ATOM 4581 CA GLU B 681 163.880 149.221 173.842 1.00 59.13 C
ATOM 4582 C GLU B 681 162.501 149.689 173.435 1.00 59.13 C
ATOM 4583 O GLU B 681 162.119 150.813 173.742 1.00 59.13 O
ATOM 4584 CB GLU B 681 164.793 149.085 172.612 1.00 59.13 C
ATOM 4585 CG GLU B 681 165.625 150.344 172.331 1.00 59.13 C
ATOM 4586 CD GLU B 681 166.719 150.621 173.365 1.00 59.13 C
ATOM 4587 OE1 GLU B 681 167.647 149.801 173.510 1.00 59.13 O
ATOM 4588 OE2 GLU B 681 166.667 151.673 174.035 1.00 59.13 O
ATOM 4589 N GLU B 682 161.766 148.812 172.773 1.00 56.52 N
ATOM 4590 CA GLU B 682 160.468 149.132 172.223 1.00 56.52 C
ATOM 4591 C GLU B 682 159.528 149.930 173.074 1.00 56.52 C
ATOM 4592 O GLU B 682 159.344 149.619 174.218 1.00 56.52 O
ATOM 4593 CB GLU B 682 159.774 147.861 171.778 1.00 56.52 C
ATOM 4594 CG GLU B 682 159.883 146.714 172.747 1.00 56.52 C
ATOM 4595 CD GLU B 682 159.402 145.418 172.133 1.00 56.52 C
ATOM 4596 OE1 GLU B 682 160.251 144.569 171.793 1.00 56.52 O

ATOM 4597 OE2 GLU B 682 158.180 145.252 171.978 1.00 56.52 O
ATOM 4598 N ILE B 683 158.982 151.001 172.519 1.00 55.18 N
ATOM 4599 CA ILE B 683 157.999 151.757 173.279 1.00 55.18 C
ATOM 4600 C ILE B 683 156.690 150.983 173.273 1.00 55.18 C
ATOM 4601 O ILE B 683 155.785 151.258 174.056 1.00 55.18 O
ATOM 4602 CB ILE B 683 157.776 153.165 172.696 1.00 55.18 C
ATOM 4603 CG1 ILE B 683 158.827 153.483 171.635 1.00 55.18 C
ATOM 4604 CG2 ILE B 683 157.826 154.210 173.798 1.00 55.18 C
ATOM 4605 CD1 ILE B 683 159.079 154.964 171.460 1.00 55.18 C
ATOM 4606 N MET B 684 156.598 150.010 172.373 1.00 57.49 N
ATOM 4607 CA MET B 684 155.414 149.161 172.269 1.00 57.49 C
ATOM 4608 C MET B 684 155.107 148.454 173.581 1.00 57.49 C
ATOM 4609 O MET B 684 153.993 148.547 174.104 1.00 57.49 O
ATOM 4610 CB MET B 684 155.597 148.140 171.147 1.00 57.49 C
ATOM 4611 CG MET B 684 154.411 147.213 170.962 1.00 57.49 C
ATOM 4612 SD MET B 684 152.913 148.097 170.501 1.00 57.49 S
ATOM 4613 CE MET B 684 151.889 146.744 169.931 1.00 57.49 C
ATOM 4614 N ARG B 685 156.086 147.736 174.130 1.00 57.53 N
ATOM 4615 CA ARG B 685 155.923 147.029 175.391 1.00 57.53 C
ATOM 4616 C ARG B 685 156.194 147.919 176.590 1.00 57.53 C
ATOM 4617 O ARG B 685 156.510 147.412 177.670 1.00 57.53 O
ATOM 4618 CB ARG B 685 156.831 145.801 175.437 1.00 57.53 C
ATOM 4619 CG ARG B 685 156.276 144.651 176.266 1.00 57.53 C
ATOM 4620 CD ARG B 685 154.979 144.092 175.679 1.00 57.53 C
ATOM 4621 NE ARG B 685 155.095 143.767 174.259 1.00 57.53 N
ATOM 4622 CZ ARG B 685 154.059 143.625 173.436 1.00 57.53 C
ATOM 4623 NH1 ARG B 685 152.822 143.777 173.887 1.00 57.53 N
ATOM 4624 NH2 ARG B 685 154.259 143.331 172.160 1.00 57.53 N
ATOM 4625 N GLU B 686 156.087 149.234 176.419 1.00 56.76 N
ATOM 4626 CA GLU B 686 156.276 150.185 177.500 1.00 56.76 C
ATOM 4627 C GLU B 686 155.040 151.030 177.759 1.00 56.76 C
ATOM 4628 O GLU B 686 155.023 151.792 178.730 1.00 56.76 O
ATOM 4629 CB GLU B 686 157.479 151.090 177.205 1.00 56.76 C
ATOM 4630 CG GLU B 686 157.690 152.190 178.208 1.00 56.76 C

ATOM 4631 CD GLU B 686 157.055 153.480 177.766 1.00 56.76 C
ATOM 4632 OE1 GLU B 686 157.077 153.757 176.552 1.00 56.76 O
ATOM 4633 OE2 GLU B 686 156.515 154.206 178.622 1.00 56.76 O
ATOM 4634 N PHE B 687 154.005 150.923 176.927 1.00 56.69 N
ATOM 4635 CA PHE B 687 152.699 151.467 177.273 1.00 56.69 C
ATOM 4636 C PHE B 687 151.673 150.361 177.468 1.00 56.69 C
ATOM 4637 O PHE B 687 150.473 150.644 177.540 1.00 56.69 O
ATOM 4638 CB PHE B 687 152.215 152.477 176.228 1.00 56.69 C
ATOM 4639 CG PHE B 687 151.855 151.876 174.904 1.00 56.69 C
ATOM 4640 CD1 PHE B 687 152.819 151.675 173.936 1.00 56.69 C
ATOM 4641 CD2 PHE B 687 150.542 151.563 174.609 1.00 56.69 C
ATOM 4642 CE1 PHE B 687 152.485 151.139 172.707 1.00 56.69 C
ATOM 4643 CE2 PHE B 687 150.202 151.030 173.384 1.00 56.69 C
ATOM 4644 CZ PHE B 687 151.173 150.818 172.432 1.00 56.69 C
ATOM 4645 N ASN B 688 152.121 149.110 177.539 1.00 54.26 N
ATOM 4646 CA ASN B 688 151.331 148.032 178.110 1.00 54.26 C
ATOM 4647 C ASN B 688 151.481 147.951 179.620 1.00 54.26 C
ATOM 4648 O ASN B 688 150.671 147.294 180.279 1.00 54.26 O
ATOM 4649 CB ASN B 688 151.738 146.692 177.496 1.00 54.26 C
ATOM 4650 CG ASN B 688 150.836 146.275 176.359 1.00 54.26 C
ATOM 4651 OD1 ASN B 688 149.622 146.461 176.417 1.00 54.26 O
ATOM 4652 ND2 ASN B 688 151.423 145.705 175.316 1.00 54.26 N
ATOM 4653 N SER B 689 152.502 148.606 180.176 1.00 54.91 N
ATOM 4654 CA SER B 689 152.784 148.578 181.602 1.00 54.91 C
ATOM 4655 C SER B 689 152.482 149.891 182.310 1.00 54.91 C
ATOM 4656 O SER B 689 152.503 149.924 183.543 1.00 54.91 O
ATOM 4657 CB SER B 689 154.255 148.222 181.841 1.00 54.91 C
ATOM 4658 OG SER B 689 154.532 146.892 181.449 1.00 54.91 O
ATOM 4659 N TYR B 690 152.209 150.965 181.572 1.00 55.06 N
ATOM 4660 CA TYR B 690 152.092 152.278 182.198 1.00 55.06 C
ATOM 4661 C TYR B 690 150.928 152.332 183.182 1.00 55.06 C
ATOM 4662 O TYR B 690 151.057 152.892 184.280 1.00 55.06 O
ATOM 4663 CB TYR B 690 151.940 153.351 181.124 1.00 55.06 C
ATOM 4664 CG TYR B 690 152.124 154.754 181.639 1.00 55.06 C

ATOM 4665 CD1 TYR B 690 153.358 155.195 182.078 1.00 55.06 C
ATOM 4666 CD2 TYR B 690 151.062 155.639 181.683 1.00 55.06 C
ATOM 4667 CE1 TYR B 690 153.527 156.475 182.549 1.00 55.06 C
ATOM 4668 CE2 TYR B 690 151.222 156.919 182.151 1.00 55.06 C
ATOM 4669 CZ TYR B 690 152.455 157.332 182.582 1.00 55.06 C
ATOM 4670 OH TYR B 690 152.615 158.612 183.050 1.00 55.06 O
ATOM 4671 N LYS B 691 149.784 151.760 182.809 1.00 55.14 N
ATOM 4672 CA LYS B 691 148.612 151.787 183.676 1.00 55.14 C
ATOM 4673 C LYS B 691 148.791 150.963 184.938 1.00 55.14 C
ATOM 4674 O LYS B 691 147.874 150.924 185.761 1.00 55.14 O
ATOM 4675 CB LYS B 691 147.386 151.293 182.917 1.00 55.14 C
ATOM 4676 CG LYS B 691 146.946 152.207 181.803 1.00 55.14 C
ATOM 4677 CD LYS B 691 146.017 151.482 180.854 1.00 55.14 C
ATOM 4678 CE LYS B 691 146.636 150.192 180.355 1.00 55.14 C
ATOM 4679 NZ LYS B 691 147.952 150.432 179.711 1.00 55.14 N
ATOM 4680 N GLN B 692 149.934 150.304 185.107 1.00 59.71 N
ATOM 4681 CA GLN B 692 150.244 149.607 186.346 1.00 59.71 C
ATOM 4682 C GLN B 692 151.062 150.477 187.292 1.00 59.71 C
ATOM 4683 O GLN B 692 150.816 150.480 188.502 1.00 59.71 O
ATOM 4684 CB GLN B 692 150.991 148.311 186.039 1.00 59.71 C
ATOM 4685 CG GLN B 692 151.184 147.419 187.237 1.00 59.71 C
ATOM 4686 CD GLN B 692 152.471 146.630 187.163 1.00 59.71 C
ATOM 4687 OE1 GLN B 692 153.242 146.770 186.214 1.00 59.71 O
ATOM 4688 NE2 GLN B 692 152.713 145.794 188.167 1.00 59.71 N
ATOM 4689 N ARG B 693 152.031 151.225 186.763 1.00 59.66 N
ATOM 4690 CA ARG B 693 152.724 152.213 187.581 1.00 59.66 C
ATOM 4691 C ARG B 693 151.779 153.326 188.006 1.00 59.66 C
ATOM 4692 O ARG B 693 151.901 153.869 189.111 1.00 59.66 O
ATOM 4693 CB ARG B 693 153.910 152.795 186.818 1.00 59.66 C
ATOM 4694 CG ARG B 693 154.770 151.766 186.135 1.00 59.66 C
ATOM 4695 CD ARG B 693 155.608 151.014 187.137 1.00 59.66 C
ATOM 4696 NE ARG B 693 156.087 149.754 186.585 1.00 59.66 N
ATOM 4697 CZ ARG B 693 156.666 148.800 187.303 1.00 59.66 C
ATOM 4698 NH1 ARG B 693 156.839 148.962 188.607 1.00 59.66 N

ATOM 4699 NH2 ARG B 693 157.070 147.685 186.716 1.00 59.66 N
ATOM 4700 N VAL B 694 150.833 153.686 187.139 1.00 59.74 N
ATOM 4701 CA VAL B 694 149.891 154.755 187.448 1.00 59.74 C
ATOM 4702 C VAL B 694 149.152 154.440 188.742 1.00 59.74 C
ATOM 4703 O VAL B 694 148.639 155.345 189.408 1.00 59.74 O
ATOM 4704 CB VAL B 694 148.901 154.981 186.291 1.00 59.74 C
ATOM 4705 CG1 VAL B 694 147.888 156.041 186.663 1.00 59.74 C
ATOM 4706 CG2 VAL B 694 149.641 155.397 185.040 1.00 59.74 C
ATOM 4707 N LYS B 695 149.095 153.161 189.114 1.00 63.20 N
ATOM 4708 CA LYS B 695 148.451 152.746 190.354 1.00 63.20 C
ATOM 4709 C LYS B 695 149.432 152.370 191.450 1.00 63.20 C
ATOM 4710 O LYS B 695 149.131 152.582 192.626 1.00 63.20 O
ATOM 4711 CB LYS B 695 147.517 151.558 190.106 1.00 63.20 C
ATOM 4712 CG LYS B 695 146.621 151.236 191.286 1.00 63.20 C
ATOM 4713 CD LYS B 695 147.246 150.197 192.201 1.00 63.20 C
ATOM 4714 CE LYS B 695 147.257 148.822 191.556 1.00 63.20 C
ATOM 4715 NZ LYS B 695 147.773 147.779 192.484 1.00 63.20 N
ATOM 4716 N TYR B 696 150.575 151.783 191.098 1.00 67.56 N
ATOM 4717 CA TYR B 696 151.655 151.636 192.067 1.00 67.56 C
ATOM 4718 C TYR B 696 151.891 152.946 192.801 1.00 67.56 C
ATOM 4719 O TYR B 696 151.945 152.986 194.034 1.00 67.56 O
ATOM 4720 CB TYR B 696 152.939 151.190 191.367 1.00 67.56 C
ATOM 4721 CG TYR B 696 153.111 149.699 191.255 1.00 67.56 C
ATOM 4722 CD1 TYR B 696 152.035 148.845 191.410 1.00 67.56 C
ATOM 4723 CD2 TYR B 696 154.355 149.147 190.992 1.00 67.56 C
ATOM 4724 CE1 TYR B 696 152.191 147.481 191.305 1.00 67.56 C
ATOM 4725 CE2 TYR B 696 154.522 147.788 190.886 1.00 67.56 C
ATOM 4726 CZ TYR B 696 153.435 146.957 191.044 1.00 67.56 C
ATOM 4727 OH TYR B 696 153.585 145.593 190.942 1.00 67.56 O
ATOM 4728 N VAL B 697 152.029 154.040 192.048 1.00 69.28 N
ATOM 4729 CA VAL B 697 152.315 155.340 192.642 1.00 69.28 C
ATOM 4730 C VAL B 697 151.165 155.881 193.475 1.00 69.28 C
ATOM 4731 O VAL B 697 151.371 156.814 194.257 1.00 69.28 O
ATOM 4732 CB VAL B 697 152.679 156.363 191.548 1.00 69.28 C

ATOM 4733 CG1 VAL B 697 153.001 157.706 192.165 1.00 69.28 C
ATOM 4734 CG2 VAL B 697 153.850 155.861 190.734 1.00 69.28 C
ATOM 4735 N GLU B 698 149.964 155.326 193.336 1.00 73.64 N
ATOM 4736 CA GLU B 698 148.824 155.792 194.114 1.00 73.64 C
ATOM 4737 C GLU B 698 148.578 154.975 195.369 1.00 73.64 C
ATOM 4738 O GLU B 698 148.151 155.534 196.382 1.00 73.64 O
ATOM 4739 CB GLU B 698 147.549 155.784 193.268 1.00 73.64 C
ATOM 4740 CG GLU B 698 146.284 155.867 194.098 1.00 73.64 C
ATOM 4741 CD GLU B 698 145.048 156.114 193.260 1.00 73.64 C
ATOM 4742 OE1 GLU B 698 145.189 156.312 192.036 1.00 73.64 O
ATOM 4743 OE2 GLU B 698 143.937 156.111 193.827 1.00 73.64 O
ATOM 4744 N ASP B 699 148.827 153.667 195.332 1.00 75.05 N
ATOM 4745 CA ASP B 699 148.731 152.876 196.552 1.00 75.05 C
ATOM 4746 C ASP B 699 149.821 153.223 197.554 1.00 75.05 C
ATOM 4747 O ASP B 699 149.722 152.817 198.715 1.00 75.05 O
ATOM 4748 CB ASP B 699 148.787 151.385 196.228 1.00 75.05 C
ATOM 4749 CG ASP B 699 148.370 150.521 197.399 1.00 75.05 C
ATOM 4750 OD1 ASP B 699 149.234 150.196 198.240 1.00 75.05 O
ATOM 4751 OD2 ASP B 699 147.176 150.170 197.483 1.00 75.05 O
ATOM 4752 N LYS B 700 150.854 153.953 197.133 1.00 76.59 N
ATOM 4753 CA LYS B 700 151.915 154.402 198.021 1.00 76.59 C
ATOM 4754 C LYS B 700 151.742 155.844 198.464 1.00 76.59 C
ATOM 4755 O LYS B 700 152.410 156.268 199.410 1.00 76.59 O
ATOM 4756 CB LYS B 700 153.282 154.258 197.341 1.00 76.59 C
ATOM 4757 CG LYS B 700 153.809 152.834 197.251 1.00 76.59 C
ATOM 4758 CD LYS B 700 152.800 151.898 196.600 1.00 76.59 C
ATOM 4759 CE LYS B 700 153.483 150.762 195.858 1.00 76.59 C
ATOM 4760 NZ LYS B 700 152.510 149.748 195.361 1.00 76.59 N
ATOM 4761 N VAL B 701 150.882 156.604 197.796 1.00 78.43 N
ATOM 4762 CA VAL B 701 150.620 157.989 198.153 1.00 78.43 C
ATOM 4763 C VAL B 701 149.397 158.104 199.061 1.00 78.43 C
ATOM 4764 O VAL B 701 148.880 159.200 199.269 1.00 78.43 O
ATOM 4765 CB VAL B 701 150.472 158.870 196.903 1.00 78.43 C
ATOM 4766 CG1 VAL B 701 149.226 158.483 196.129 1.00 78.43 C

ATOM 4767 CG2 VAL B 701 150.418 160.331 197.287 1.00 78.43 C
ATOM 4768 N VAL B 702 148.922 156.988 199.601 1.00 80.83 N
ATOM 4769 CA VAL B 702 147.829 157.007 200.560 1.00 80.83 C
ATOM 4770 C VAL B 702 148.299 156.741 201.982 1.00 80.83 C
ATOM 4771 O VAL B 702 147.640 157.201 202.927 1.00 80.83 O
ATOM 4772 CB VAL B 702 146.727 156.003 200.169 1.00 80.83 C
ATOM 4773 CG1 VAL B 702 145.604 156.034 201.188 1.00 80.83 C
ATOM 4774 CG2 VAL B 702 146.200 156.312 198.781 1.00 80.83 C
ATOM 4775 N ASP B 703 149.396 156.017 202.171 1.00 85.56 N
ATOM 4776 CA ASP B 703 149.937 155.793 203.504 1.00 85.56 C
ATOM 4777 C ASP B 703 150.667 157.039 203.996 1.00 85.56 C
ATOM 4778 O ASP B 703 150.295 157.605 205.031 1.00 85.56 O
ATOM 4779 CB ASP B 703 150.868 154.581 203.503 1.00 85.56 C
ATOM 4780 CG ASP B 703 150.268 153.389 202.787 1.00 85.56 C
ATOM 4781 OD1 ASP B 703 149.033 153.364 202.612 1.00 85.56 O
ATOM 4782 OD2 ASP B 703 151.027 152.479 202.399 1.00 85.56 O
ATOM 4783 N PRO B 704 151.702 157.501 203.287 1.00 87.45 N
ATOM 4784 CA PRO B 704 152.441 158.683 203.751 1.00 87.45 C
ATOM 4785 C PRO B 704 151.593 159.942 203.757 1.00 87.45 C
ATOM 4786 O PRO B 704 151.524 160.644 204.770 1.00 87.45 O
ATOM 4787 CB PRO B 704 153.592 158.796 202.742 1.00 87.45 C
ATOM 4788 CG PRO B 704 153.749 157.429 202.197 1.00 87.45 C
ATOM 4789 CD PRO B 704 152.359 156.872 202.132 1.00 87.45 C
ATOM 4790 N LEU B 705 150.946 160.236 202.631 1.00 92.73 N
ATOM 4791 CA LEU B 705 150.141 161.444 202.509 1.00 92.73 C
ATOM 4792 C LEU B 705 149.121 161.489 203.637 1.00 92.73 C
ATOM 4793 O LEU B 705 148.888 160.471 204.301 1.00 92.73 O
ATOM 4794 CB LEU B 705 149.463 161.514 201.142 1.00 92.73 C
ATOM 4795 CG LEU B 705 150.321 162.176 200.064 1.00 92.73 C
ATOM 4796 CD1 LEU B 705 150.534 163.638 200.402 1.00 92.73 C
ATOM 4797 CD2 LEU B 705 151.656 161.467 199.930 1.00 92.73 C
ATOM 4798 N PRO B 706 148.489 162.635 203.874 1.00101.21 N
ATOM 4799 CA PRO B 706 147.847 162.880 205.170 1.00101.21 C
ATOM 4800 C PRO B 706 146.898 161.760 205.553 1.00101.21 C

ATOM 4801 O PRO B 706 145.841 161.581 204.931 1.00101.21 O
ATOM 4802 CB PRO B 706 147.090 164.200 204.947 1.00101.21 C
ATOM 4803 CG PRO B 706 146.980 164.341 203.463 1.00101.21 C
ATOM 4804 CD PRO B 706 148.222 163.719 202.915 1.00101.21 C
ATOM 4805 N PRO B 707 147.245 160.985 206.576 1.00101.72 N
ATOM 4806 CA PRO B 707 146.247 160.138 207.234 1.00101.72 C
ATOM 4807 C PRO B 707 145.355 160.995 208.112 1.00101.72 C
ATOM 4808 O PRO B 707 145.448 162.225 208.070 1.00101.72 O
ATOM 4809 CB PRO B 707 147.093 159.153 208.053 1.00101.72 C
ATOM 4810 CG PRO B 707 148.495 159.294 207.519 1.00101.72 C
ATOM 4811 CD PRO B 707 148.599 160.717 207.079 1.00101.72 C
ATOM 4812 N TYR B 708 144.487 160.376 208.903 1.00105.59 N
ATOM 4813 CA TYR B 708 143.537 161.134 209.701 1.00105.59 C
ATOM 4814 C TYR B 708 143.440 160.558 211.102 1.00105.59 C
ATOM 4815 O TYR B 708 143.311 159.344 211.275 1.00105.59 O
ATOM 4816 CB TYR B 708 142.151 161.123 209.057 1.00105.59 C
ATOM 4817 CG TYR B 708 141.598 159.732 208.869 1.00105.59 C
ATOM 4818 CD1 TYR B 708 141.937 158.974 207.760 1.00105.59 C
ATOM 4819 CD2 TYR B 708 140.747 159.172 209.808 1.00105.59 C
ATOM 4820 CE1 TYR B 708 141.436 157.704 207.587 1.00105.59 C
ATOM 4821 CE2 TYR B 708 140.243 157.903 209.644 1.00105.59 C
ATOM 4822 CZ TYR B 708 140.591 157.173 208.532 1.00105.59 C
ATOM 4823 OH TYR B 708 140.091 155.904 208.359 1.00105.59 O
ATOM 4824 N LEU B 709 143.495 161.442 212.096 1.00105.14 N
ATOM 4825 CA LEU B 709 143.014 161.102 213.427 1.00105.14 C
ATOM 4826 C LEU B 709 143.638 159.805 213.928 1.00105.14 C
ATOM 4827 O LEU B 709 142.937 158.805 214.112 1.00105.14 O
ATOM 4828 CB LEU B 709 141.490 161.005 213.392 1.00105.14 C
ATOM 4829 CG LEU B 709 140.875 162.178 212.623 1.00105.14 C
ATOM 4830 CD1 LEU B 709 139.359 162.121 212.603 1.00105.14 C
ATOM 4831 CD2 LEU B 709 141.348 163.481 213.222 1.00105.14 C
ATOM 4832 N LYS B 710 144.957 159.822 214.139 1.00107.58 N
ATOM 4833 CA LYS B 710 145.750 158.626 214.410 1.00107.58 C
ATOM 4834 C LYS B 710 144.973 157.542 215.154 1.00107.58 C

ATOM 4835 O LYS B 710 144.901 156.392 214.707 1.00107.58 O
ATOM 4836 CB LYS B 710 146.997 159.029 215.211 1.00107.58 C
ATOM 4837 CG LYS B 710 147.762 160.215 214.626 1.00107.58 C
ATOM 4838 CD LYS B 710 148.418 159.867 213.301 1.00107.58 C
ATOM 4839 CE LYS B 710 148.364 161.030 212.326 1.00107.58 C
ATOM 4840 NZ LYS B 710 148.618 160.572 210.933 1.00107.58 N
ATOM 4841 N GLY B 711 144.379 157.897 216.292 1.00103.26 N
ATOM 4842 CA GLY B 711 143.638 156.938 217.085 1.00103.26 C
ATOM 4843 C GLY B 711 142.157 156.890 216.774 1.00103.26 C
ATOM 4844 O GLY B 711 141.330 156.941 217.688 1.00103.26 O
ATOM 4845 N LEU B 712 141.807 156.796 215.491 1.00 99.05 N
ATOM 4846 CA LEU B 712 140.411 156.689 215.072 1.00 99.05 C
ATOM 4847 C LEU B 712 140.133 155.531 214.130 1.00 99.05 C
ATOM 4848 O LEU B 712 138.977 155.106 214.035 1.00 99.05 O
ATOM 4849 CB LEU B 712 139.951 157.986 214.391 1.00 99.05 C
ATOM 4850 CG LEU B 712 138.609 157.911 213.668 1.00 99.05 C
ATOM 4851 CD1 LEU B 712 137.529 157.474 214.632 1.00 99.05 C
ATOM 4852 CD2 LEU B 712 138.258 159.242 213.043 1.00 99.05 C
ATOM 4853 N ASP B 713 141.141 155.009 213.430 1.00101.08 N
ATOM 4854 CA ASP B 713 140.911 153.913 212.496 1.00101.08 C
ATOM 4855 C ASP B 713 140.299 152.699 213.184 1.00101.08 C
ATOM 4856 O ASP B 713 139.629 151.889 212.531 1.00101.08 O
ATOM 4857 CB ASP B 713 142.223 153.541 211.806 1.00101.08 C
ATOM 4858 CG ASP B 713 142.045 152.486 210.746 1.00101.08 C
ATOM 4859 OD1 ASP B 713 141.789 151.321 211.108 1.00101.08 O
ATOM 4860 OD2 ASP B 713 142.164 152.815 209.547 1.00101.08 O
ATOM 4861 N ASP B 714 140.506 152.552 214.494 1.00102.95 N
ATOM 4862 CA ASP B 714 139.955 151.392 215.186 1.00102.95 C
ATOM 4863 C ASP B 714 138.435 151.456 215.250 1.00102.95 C
ATOM 4864 O ASP B 714 137.757 150.449 215.023 1.00102.95 O
ATOM 4865 CB ASP B 714 140.545 151.276 216.588 1.00102.95 C
ATOM 4866 CG ASP B 714 140.502 149.852 217.120 1.00102.95 C
ATOM 4867 OD1 ASP B 714 141.310 149.024 216.655 1.00102.95 O
ATOM 4868 OD2 ASP B 714 139.664 149.558 217.996 1.00102.95 O

ATOM 4869 N LEU B 715 137.878 152.628 215.562 1.00 99.17 N
ATOM 4870 CA LEU B 715 136.425 152.749 215.605 1.00 99.17 C
ATOM 4871 C LEU B 715 135.804 152.312 214.288 1.00 99.17 C
ATOM 4872 O LEU B 715 134.796 151.597 214.275 1.00 99.17 O
ATOM 4873 CB LEU B 715 136.015 154.182 215.936 1.00 99.17 C
ATOM 4874 CG LEU B 715 134.521 154.367 216.196 1.00 99.17 C
ATOM 4875 CD1 LEU B 715 134.048 153.430 217.291 1.00 99.17 C
ATOM 4876 CD2 LEU B 715 134.212 155.805 216.554 1.00 99.17 C
ATOM 4877 N MET B 716 136.395 152.725 213.167 1.00102.19 N
ATOM 4878 CA MET B 716 135.911 152.265 211.874 1.00102.19 C
ATOM 4879 C MET B 716 136.182 150.786 211.654 1.00102.19 C
ATOM 4880 O MET B 716 135.456 150.146 210.888 1.00102.19 O
ATOM 4881 CB MET B 716 136.543 153.081 210.748 1.00102.19 C
ATOM 4882 CG MET B 716 136.107 152.650 209.360 1.00102.19 C
ATOM 4883 SD MET B 716 137.175 151.383 208.652 1.00102.19 S
ATOM 4884 CE MET B 716 138.645 152.345 208.308 1.00102.19 C
ATOM 4885 N SER B 717 137.205 150.229 212.298 1.00100.46 N
ATOM 4886 CA SER B 717 137.485 148.804 212.193 1.00100.46 C
ATOM 4887 C SER B 717 137.044 148.019 213.419 1.00100.46 C
ATOM 4888 O SER B 717 137.052 146.785 213.381 1.00100.46 O
ATOM 4889 CB SER B 717 138.977 148.573 211.946 1.00100.46 C
ATOM 4890 OG SER B 717 139.346 147.256 212.311 1.00100.46 O
ATOM 4891 N GLY B 718 136.664 148.693 214.499 1.00102.91 N
ATOM 4892 CA GLY B 718 136.177 148.012 215.681 1.00102.91 C
ATOM 4893 C GLY B 718 134.667 148.031 215.733 1.00102.91 C
ATOM 4894 O GLY B 718 134.050 147.402 216.598 1.00102.91 O
ATOM 4895 N LEU B 719 134.065 148.764 214.798 1.00105.23 N
ATOM 4896 CA LEU B 719 132.620 148.797 214.625 1.00105.23 C
ATOM 4897 C LEU B 719 132.169 148.371 213.240 1.00105.23 C
ATOM 4898 O LEU B 719 131.033 147.900 213.105 1.00105.23 O
ATOM 4899 CB LEU B 719 132.071 150.203 214.910 1.00105.23 C
ATOM 4900 CG LEU B 719 130.569 150.411 214.714 1.00105.23 C
ATOM 4901 CD1 LEU B 719 129.793 149.255 215.306 1.00105.23 C
ATOM 4902 CD2 LEU B 719 130.128 151.720 215.339 1.00105.23 C

ATOM 4903 N GLY B 720 133.005 148.513 212.215 1.00107.68 N
ATOM 4904 CA GLY B 720 132.699 148.021 210.892 1.00107.68 C
ATOM 4905 C GLY B 720 132.749 146.520 210.750 1.00107.68 C
ATOM 4906 O GLY B 720 132.727 146.010 209.627 1.00107.68 O
ATOM 4907 N ALA B 721 132.831 145.792 211.862 1.00111.43 N
ATOM 4908 CA ALA B 721 132.792 144.333 211.836 1.00111.43 C
ATOM 4909 C ALA B 721 131.892 143.715 212.892 1.00111.43 C
ATOM 4910 O ALA B 721 131.663 142.502 212.836 1.00111.43 O
ATOM 4911 CB ALA B 721 134.203 143.756 211.992 1.00111.43 C
ATOM 4912 N ALA B 722 131.379 144.480 213.852 1.00112.69 N
ATOM 4913 CA ALA B 722 130.477 143.963 214.875 1.00112.69 C
ATOM 4914 C ALA B 722 130.032 145.136 215.738 1.00112.69 C
ATOM 4915 O ALA B 722 130.616 146.222 215.692 1.00112.69 O
ATOM 4916 CB ALA B 722 131.136 142.879 215.728 1.00112.69 C
ATOM 4917 N GLY B 723 128.988 144.902 216.529 1.00115.66 N
ATOM 4918 CA GLY B 723 128.439 145.931 217.391 1.00115.66 C
ATOM 4919 C GLY B 723 127.244 146.621 216.766 1.00115.66 C
ATOM 4920 O GLY B 723 127.400 147.451 215.865 1.00115.66 O
ATOM 4921 N LYS B 724 126.041 146.294 217.239 1.00114.28 N
ATOM 4922 CA LYS B 724 124.833 146.788 216.588 1.00114.28 C
ATOM 4923 C LYS B 724 124.483 148.199 217.048 1.00114.28 C
ATOM 4924 O LYS B 724 124.470 149.141 216.248 1.00114.28 O
ATOM 4925 CB LYS B 724 123.671 145.828 216.854 1.00114.28 C
ATOM 4926 CG LYS B 724 123.833 144.466 216.196 1.00114.28 C
ATOM 4927 CD LYS B 724 123.726 144.568 214.684 1.00114.28 C
ATOM 4928 CE LYS B 724 124.162 143.276 214.011 1.00114.28 C
ATOM 4929 NZ LYS B 724 125.635 143.079 214.093 1.00114.28 N
ATOM 4930 N ALA B 725 124.202 148.366 218.341 1.00112.61 N
ATOM 4931 CA ALA B 725 123.759 149.643 218.876 1.00112.61 C
ATOM 4932 C ALA B 725 124.656 150.200 219.969 1.00112.61 C
ATOM 4933 O ALA B 725 124.553 151.393 220.277 1.00112.61 O
ATOM 4934 CB ALA B 725 122.327 149.529 219.421 1.00112.61 C
ATOM 4935 N VAL B 726 125.521 149.383 220.567 1.00110.97 N
ATOM 4936 CA VAL B 726 126.401 149.881 221.618 1.00110.97 C

ATOM 4937 C VAL B 726 127.585 150.626 221.020 1.00110.97 C
ATOM 4938 O VAL B 726 128.020 151.650 221.557 1.00110.97 O
ATOM 4939 CB VAL B 726 126.855 148.723 222.523 1.00110.97 C
ATOM 4940 CG1 VAL B 726 125.651 148.023 223.130 1.00110.97 C
ATOM 4941 CG2 VAL B 726 127.709 147.742 221.739 1.00110.97 C
ATOM 4942 N GLY B 727 128.122 150.127 219.907 1.00109.35 N
ATOM 4943 CA GLY B 727 129.262 150.736 219.250 1.00109.35 C
ATOM 4944 C GLY B 727 129.206 152.247 219.200 1.00109.35 C
ATOM 4945 O GLY B 727 130.217 152.922 219.416 1.00109.35 O
ATOM 4946 N VAL B 728 128.022 152.792 218.921 1.00105.49 N
ATOM 4947 CA VAL B 728 127.874 154.242 218.862 1.00105.49 C
ATOM 4948 C VAL B 728 128.217 154.870 220.207 1.00105.49 C
ATOM 4949 O VAL B 728 128.847 155.930 220.268 1.00105.49 O
ATOM 4950 CB VAL B 728 126.453 154.619 218.407 1.00105.49 C
ATOM 4951 CG1 VAL B 728 126.277 156.126 218.424 1.00105.49 C
ATOM 4952 CG2 VAL B 728 126.179 154.056 217.024 1.00105.49 C
ATOM 4953 N ALA B 729 127.822 154.223 221.306 1.00103.77 N
ATOM 4954 CA ALA B 729 128.086 154.792 222.626 1.00103.77 C
ATOM 4955 C ALA B 729 129.570 154.735 222.973 1.00103.77 C
ATOM 4956 O ALA B 729 130.127 155.698 223.517 1.00103.77 O
ATOM 4957 CB ALA B 729 127.258 154.067 223.684 1.00103.77 C
ATOM 4958 N ILE B 730 130.220 153.604 222.691 1.00102.68 N
ATOM 4959 CA ILE B 730 131.663 153.518 222.893 1.00102.68 C
ATOM 4960 C ILE B 730 132.372 154.593 222.084 1.00102.68 C
ATOM 4961 O ILE B 730 133.300 155.246 222.573 1.00102.68 O
ATOM 4962 CB ILE B 730 132.174 152.110 222.539 1.00102.68 C
ATOM 4963 CG1 ILE B 730 131.610 151.079 223.515 1.00102.68 C
ATOM 4964 CG2 ILE B 730 133.686 152.079 222.544 1.00102.68 C
ATOM 4965 CD1 ILE B 730 131.877 149.651 223.109 1.00102.68 C
ATOM 4966 N GLY B 731 131.954 154.790 220.835 1.00101.03 N
ATOM 4967 CA GLY B 731 132.541 155.848 220.033 1.00101.03 C
ATOM 4968 C GLY B 731 132.304 157.224 220.623 1.00101.03 C
ATOM 4969 O GLY B 731 133.192 158.077 220.608 1.00101.03 O
ATOM 4970 N ALA B 732 131.106 157.456 221.161 1.00101.79 N

ATOM 4971 CA ALA B 732 130.791 158.763 221.726 1.00101.79 C
ATOM 4972 C ALA B 732 131.614 159.052 222.973 1.00101.79 C
ATOM 4973 O ALA B 732 131.968 160.209 223.225 1.00101.79 O
ATOM 4974 CB ALA B 732 129.301 158.853 222.045 1.00101.79 C
ATOM 4975 N VAL B 733 131.919 158.026 223.766 1.00 99.72 N
ATOM 4976 CA VAL B 733 132.770 158.239 224.934 1.00 99.72 C
ATOM 4977 C VAL B 733 134.225 158.410 224.515 1.00 99.72 C
ATOM 4978 O VAL B 733 134.939 159.278 225.037 1.00 99.72 O
ATOM 4979 CB VAL B 733 132.601 157.088 225.939 1.00 99.72 C
ATOM 4980 CG1 VAL B 733 133.590 157.238 227.075 1.00 99.72 C
ATOM 4981 CG2 VAL B 733 131.184 157.064 226.474 1.00 99.72 C
ATOM 4982 N GLY B 734 134.690 157.588 223.574 1.00 99.14 N
ATOM 4983 CA GLY B 734 136.023 157.780 223.037 1.00 99.14 C
ATOM 4984 C GLY B 734 136.223 159.160 222.450 1.00 99.14 C
ATOM 4985 O GLY B 734 137.323 159.706 222.506 1.00 99.14 O
ATOM 4986 N GLY B 735 135.169 159.740 221.880 1.00100.79 N
ATOM 4987 CA GLY B 735 135.286 161.082 221.337 1.00100.79 C
ATOM 4988 C GLY B 735 135.879 162.063 222.326 1.00100.79 C
ATOM 4989 O GLY B 735 136.681 162.924 221.958 1.00100.79 O
ATOM 4990 N ALA B 736 135.498 161.943 223.596 1.00101.41 N
ATOM 4991 CA ALA B 736 136.024 162.810 224.641 1.00101.41 C
ATOM 4992 C ALA B 736 137.294 162.251 225.267 1.00101.41 C
ATOM 4993 O ALA B 736 138.210 163.013 225.589 1.00101.41 O
ATOM 4994 CB ALA B 736 134.965 163.033 225.723 1.00101.41 C
ATOM 4995 N VAL B 737 137.373 160.929 225.441 1.00100.83 N
ATOM 4996 CA VAL B 737 138.554 160.350 226.074 1.00100.83 C
ATOM 4997 C VAL B 737 139.796 160.465 225.198 1.00100.83 C
ATOM 4998 O VAL B 737 140.917 160.396 225.713 1.00100.83 O
ATOM 4999 CB VAL B 737 138.297 158.882 226.458 1.00100.83 C
ATOM 5000 CG1 VAL B 737 139.602 158.181 226.779 1.00100.83 C
ATOM 5001 CG2 VAL B 737 137.360 158.811 227.646 1.00100.83 C
ATOM 5002 N ALA B 738 139.638 160.650 223.889 1.00100.01 N
ATOM 5003 CA ALA B 738 140.765 160.787 222.979 1.00100.01 C
ATOM 5004 C ALA B 738 141.093 162.239 222.669 1.00100.01 C

ATOM 5005 O ALA B 738 141.874 162.504 221.751 1.00100.01 O
ATOM 5006 CB ALA B 738 140.495 160.025 221.683 1.00100.01 C
ATOM 5007 N SER B 739 140.508 163.180 223.402 1.00101.86 N
ATOM 5008 CA SER B 739 140.898 164.579 223.310 1.00101.86 C
ATOM 5009 C SER B 739 141.909 164.967 224.376 1.00101.86 C
ATOM 5010 O SER B 739 142.508 166.043 224.279 1.00101.86 O
ATOM 5011 CB SER B 739 139.667 165.482 223.420 1.00101.86 C
ATOM 5012 OG SER B 739 140.001 166.828 223.134 1.00101.86 O
ATOM 5013 N VAL B 740 142.105 164.123 225.383 1.00101.64 N
ATOM 5014 CA VAL B 740 143.120 164.358 226.404 1.00101.64 C
ATOM 5015 C VAL B 740 144.426 163.663 226.049 1.00101.64 C
ATOM 5016 O VAL B 740 145.510 164.215 226.264 1.00101.64 O
ATOM 5017 CB VAL B 740 142.592 163.898 227.776 1.00101.64 C
ATOM 5018 CG1 VAL B 740 143.693 163.961 228.813 1.00101.64 C
ATOM 5019 CG2 VAL B 740 141.411 164.747 228.197 1.00101.64 C
ATOM 5020 N VAL B 741 144.343 162.442 225.518 1.00100.21 N
ATOM 5021 CA VAL B 741 145.550 161.722 225.134 1.00100.21 C
ATOM 5022 C VAL B 741 146.300 162.470 224.044 1.00100.21 C
ATOM 5023 O VAL B 741 147.533 162.470 224.020 1.00100.21 O
ATOM 5024 CB VAL B 741 145.206 160.287 224.696 1.00100.21 C
ATOM 5025 CG1 VAL B 741 146.364 159.681 223.933 1.00100.21 C
ATOM 5026 CG2 VAL B 741 144.865 159.439 225.904 1.00100.21 C
ATOM 5027 N GLU B 742 145.581 163.130 223.135 1.00102.36 N
ATOM 5028 CA GLU B 742 146.261 163.901 222.099 1.00102.36 C
ATOM 5029 C GLU B 742 147.036 165.066 222.699 1.00102.36 C
ATOM 5030 O GLU B 742 148.185 165.319 222.316 1.00102.36 O
ATOM 5031 CB GLU B 742 145.258 164.397 221.063 1.00102.36 C
ATOM 5032 CG GLU B 742 144.661 163.288 220.228 1.00102.36 C
ATOM 5033 CD GLU B 742 145.705 162.590 219.385 1.00102.36 C
ATOM 5034 OE1 GLU B 742 146.685 163.254 218.988 1.00102.36 O
ATOM 5035 OE2 GLU B 742 145.552 161.379 219.122 1.00102.36 O
ATOM 5036 N GLY B 743 146.424 165.791 223.634 1.00103.83 N
ATOM 5037 CA GLY B 743 147.142 166.864 224.300 1.00103.83 C
ATOM 5038 C GLY B 743 148.351 166.361 225.062 1.00103.83 C

ATOM 5039 O GLY B 743 149.407 166.998 225.061 1.00103.83 O
ATOM 5040 N VAL B 744 148.217 165.208 225.720 1.00100.88 N
ATOM 5041 CA VAL B 744 149.336 164.672 226.488 1.00100.88 C
ATOM 5042 C VAL B 744 150.421 164.129 225.567 1.00100.88 C
ATOM 5043 O VAL B 744 151.585 164.023 225.966 1.00100.88 O
ATOM 5044 CB VAL B 744 148.843 163.595 227.470 1.00100.88 C
ATOM 5045 CG1 VAL B 744 150.018 162.855 228.073 1.00100.88 C
ATOM 5046 CG2 VAL B 744 148.001 164.230 228.561 1.00100.88 C
ATOM 5047 N ALA B 745 150.068 163.775 224.330 1.00100.69 N
ATOM 5048 CA ALA B 745 151.069 163.278 223.394 1.00100.69 C
ATOM 5049 C ALA B 745 151.812 164.418 222.712 1.00100.69 C
ATOM 5050 O ALA B 745 153.037 164.363 222.565 1.00100.69 O
ATOM 5051 CB ALA B 745 150.414 162.372 222.354 1.00100.69 C
ATOM 5052 N THR B 746 151.093 165.459 222.286 1.00103.62 N
ATOM 5053 CA THR B 746 151.756 166.626 221.717 1.00103.62 C
ATOM 5054 C THR B 746 152.730 167.259 222.699 1.00103.62 C
ATOM 5055 O THR B 746 153.658 167.956 222.276 1.00103.62 O
ATOM 5056 CB THR B 746 150.724 167.660 221.271 1.00103.62 C
ATOM 5057 OG1 THR B 746 149.887 167.093 220.256 1.00103.62 O
ATOM 5058 CG2 THR B 746 151.412 168.893 220.720 1.00103.62 C
ATOM 5059 N PHE B 747 152.541 167.032 223.998 1.00100.32 N
ATOM 5060 CA PHE B 747 153.462 167.534 225.007 1.00100.32 C
ATOM 5061 C PHE B 747 154.780 166.773 225.022 1.00100.32 C
ATOM 5062 O PHE B 747 155.769 167.287 225.550 1.00100.32 O
ATOM 5063 CB PHE B 747 152.801 167.464 226.385 1.00100.32 C
ATOM 5064 CG PHE B 747 153.627 168.048 227.493 1.00100.32 C
ATOM 5065 CD1 PHE B 747 154.533 167.268 228.185 1.00100.32 C
ATOM 5066 CD2 PHE B 747 153.479 169.372 227.859 1.00100.32 C
ATOM 5067 CE1 PHE B 747 155.287 167.801 229.208 1.00100.32 C
ATOM 5068 CE2 PHE B 747 154.230 169.910 228.882 1.00100.32 C
ATOM 5069 CZ PHE B 747 155.133 169.122 229.557 1.00100.32 C
ATOM 5070 N LEU B 748 154.816 165.566 224.455 1.00100.74 N
ATOM 5071 CA LEU B 748 156.028 164.759 224.393 1.00100.74 C
ATOM 5072 C LEU B 748 156.750 164.902 223.057 1.00100.74 C

ATOM 5073 O LEU B 748 157.459 163.985 222.632 1.00100.74 O
ATOM 5074 CB LEU B 748 155.704 163.290 224.665 1.00100.74 C
ATOM 5075 CG LEU B 748 155.094 162.965 226.029 1.00100.74 C
ATOM 5076 CD1 LEU B 748 154.849 161.475 226.165 1.00100.74 C
ATOM 5077 CD2 LEU B 748 155.989 163.460 227.145 1.00100.74 C
ATOM 5078 N LYS B 749 156.578 166.038 222.383 1.00101.31 N
ATOM 5079 CA LYS B 749 157.290 166.328 221.148 1.00101.31 C
ATOM 5080 C LYS B 749 158.216 167.528 221.269 1.00101.31 C
ATOM 5081 O LYS B 749 158.946 167.827 220.318 1.00101.31 O
ATOM 5082 CB LYS B 749 156.299 166.560 220.001 1.00101.31 C
ATOM 5083 CG LYS B 749 155.187 165.532 219.926 1.00101.31 C
ATOM 5084 CD LYS B 749 155.719 164.181 219.493 1.00101.31 C
ATOM 5085 CE LYS B 749 154.592 163.258 219.067 1.00101.31 C
ATOM 5086 NZ LYS B 749 153.810 163.822 217.935 1.00101.31 N
ATOM 5087 N ASN B 750 158.204 168.223 222.402 1.00 99.22 N
ATOM 5088 CA ASN B 750 159.104 169.331 222.659 1.00 99.22 C
ATOM 5089 C ASN B 750 160.230 168.870 223.564 1.00 99.22 C
ATOM 5090 O ASN B 750 159.960 168.354 224.657 1.00 99.22 O
ATOM 5091 CB ASN B 750 158.359 170.490 223.317 1.00 99.22 C
ATOM 5092 CG ASN B 750 157.176 170.952 222.505 1.00 99.22 C
ATOM 5093 OD1 ASN B 750 156.366 170.144 222.054 1.00 99.22 O
ATOM 5094 ND2 ASN B 750 157.069 172.257 222.308 1.00 99.22 N
ATOM 5095 N PRO B 751 161.489 169.018 223.151 1.00100.73 N
ATOM 5096 CA PRO B 751 162.593 168.642 224.048 1.00100.73 C
ATOM 5097 C PRO B 751 162.400 169.146 225.467 1.00100.73 C
ATOM 5098 O PRO B 751 162.467 168.358 226.419 1.00100.73 O
ATOM 5099 CB PRO B 751 163.810 169.270 223.362 1.00100.73 C
ATOM 5100 CG PRO B 751 163.450 169.278 221.925 1.00100.73 C
ATOM 5101 CD PRO B 751 161.972 169.530 221.859 1.00100.73 C
ATOM 5102 N PHE B 752 162.148 170.445 225.637 1.00101.71 N
ATOM 5103 CA PHE B 752 161.872 170.979 226.963 1.00101.71 C
ATOM 5104 C PHE B 752 160.600 170.407 227.568 1.00101.71 C
ATOM 5105 O PHE B 752 160.381 170.568 228.773 1.00101.71 O
ATOM 5106 CB PHE B 752 161.772 172.502 226.907 1.00101.71 C

ATOM 5107 CG PHE B 752 162.716 173.137 225.931 1.00101.71 C
ATOM 5108 CD1 PHE B 752 164.084 173.023 226.099 1.00101.71 C
ATOM 5109 CD2 PHE B 752 162.238 173.845 224.845 1.00101.71 C
ATOM 5110 CE1 PHE B 752 164.955 173.606 225.202 1.00101.71 C
ATOM 5111 CE2 PHE B 752 163.103 174.428 223.948 1.00101.71 C
ATOM 5112 CZ PHE B 752 164.464 174.308 224.127 1.00101.71 C
ATOM 5113 N GLY B 753 159.759 169.754 226.771 1.00101.58 N
ATOM 5114 CA GLY B 753 158.567 169.124 227.295 1.00101.58 C
ATOM 5115 C GLY B 753 158.828 167.708 227.758 1.00101.58 C
ATOM 5116 O GLY B 753 158.528 167.353 228.901 1.00101.58 O
ATOM 5117 N ALA B 754 159.394 166.886 226.874 1.00102.92 N
ATOM 5118 CA ALA B 754 159.723 165.513 227.225 1.00102.92 C
ATOM 5119 C ALA B 754 160.881 165.416 228.205 1.00102.92 C
ATOM 5120 O ALA B 754 161.151 164.322 228.708 1.00102.92 O
ATOM 5121 CB ALA B 754 160.053 164.711 225.966 1.00102.92 C
ATOM 5122 N PHE B 755 161.566 166.522 228.487 1.00103.84 N
ATOM 5123 CA PHE B 755 162.688 166.502 229.414 1.00103.84 C
ATOM 5124 C PHE B 755 162.263 166.665 230.865 1.00103.84 C
ATOM 5125 O PHE B 755 163.035 166.311 231.763 1.00103.84 O
ATOM 5126 CB PHE B 755 163.688 167.602 229.047 1.00103.84 C
ATOM 5127 CG PHE B 755 164.852 167.704 229.986 1.00103.84 C
ATOM 5128 CD1 PHE B 755 165.897 166.803 229.913 1.00103.84 C
ATOM 5129 CD2 PHE B 755 164.904 168.708 230.937 1.00103.84 C
ATOM 5130 CE1 PHE B 755 166.971 166.898 230.773 1.00103.84 C
ATOM 5131 CE2 PHE B 755 165.976 168.807 231.799 1.00103.84 C
ATOM 5132 CZ PHE B 755 167.010 167.901 231.718 1.00103.84 C
ATOM 5133 N THR B 756 161.061 167.186 231.117 1.00104.91 N
ATOM 5134 CA THR B 756 160.595 167.338 232.490 1.00104.91 C
ATOM 5135 C THR B 756 160.085 166.025 233.069 1.00104.91 C
ATOM 5136 O THR B 756 160.145 165.824 234.287 1.00104.91 O
ATOM 5137 CB THR B 756 159.496 168.397 232.562 1.00104.91 C
ATOM 5138 OG1 THR B 756 159.118 168.604 233.927 1.00104.91 O
ATOM 5139 CG2 THR B 756 158.280 167.951 231.775 1.00104.91 C
ATOM 5140 N ILE B 757 159.575 165.127 232.224 1.00104.67 N

ATOM 5141 CA ILE B 757 159.140 163.823 232.711 1.00104.67 C
ATOM 5142 C ILE B 757 160.329 163.024 233.224 1.00104.67 C
ATOM 5143 O ILE B 757 160.226 162.296 234.219 1.00104.67 O
ATOM 5144 CB ILE B 757 158.383 163.066 231.606 1.00104.67 C
ATOM 5145 CG1 ILE B 757 157.158 163.862 231.159 1.00104.67 C
ATOM 5146 CG2 ILE B 757 157.977 161.688 232.091 1.00104.67 C
ATOM 5147 CD1 ILE B 757 156.385 164.478 232.299 1.00104.67 C
ATOM 5148 N ILE B 758 161.475 163.141 232.550 1.00104.92 N
ATOM 5149 CA ILE B 758 162.666 162.420 232.977 1.00104.92 C
ATOM 5150 C ILE B 758 163.202 162.961 234.293 1.00104.92 C
ATOM 5151 O ILE B 758 163.974 162.275 234.971 1.00104.92 O
ATOM 5152 CB ILE B 758 163.742 162.477 231.879 1.00104.92 C
ATOM 5153 CG1 ILE B 758 163.207 161.868 230.584 1.00104.92 C
ATOM 5154 CG2 ILE B 758 164.996 161.752 232.324 1.00104.92 C
ATOM 5155 CD1 ILE B 758 164.274 161.588 229.558 1.00104.92 C
ATOM 5156 N LEU B 759 162.813 164.177 234.675 1.00107.20 N
ATOM 5157 CA LEU B 759 163.164 164.716 235.983 1.00107.20 C
ATOM 5158 C LEU B 759 162.137 164.340 237.041 1.00107.20 C
ATOM 5159 O LEU B 759 162.498 164.064 238.189 1.00107.20 O
ATOM 5160 CB LEU B 759 163.300 166.237 235.909 1.00107.20 C
ATOM 5161 CG LEU B 759 164.449 166.771 235.057 1.00107.20 C
ATOM 5162 CD1 LEU B 759 164.510 168.282 235.141 1.00107.20 C
ATOM 5163 CD2 LEU B 759 165.760 166.157 235.502 1.00107.20 C
ATOM 5164 N VAL B 760 160.856 164.320 236.671 1.00109.62 N
ATOM 5165 CA VAL B 760 159.816 163.912 237.611 1.00109.62 C
ATOM 5166 C VAL B 760 160.023 162.464 238.032 1.00109.62 C
ATOM 5167 O VAL B 760 160.004 162.133 239.226 1.00109.62 O
ATOM 5168 CB VAL B 760 158.422 164.125 236.995 1.00109.62 C
ATOM 5169 CG1 VAL B 760 157.401 163.242 237.688 1.00109.62 C
ATOM 5170 CG2 VAL B 760 158.021 165.584 237.093 1.00109.62 C
ATOM 5171 N ALA B 761 160.206 161.573 237.056 1.00111.45 N
ATOM 5172 CA ALA B 761 160.415 160.161 237.352 1.00111.45 C
ATOM 5173 C ALA B 761 161.779 159.878 237.957 1.00111.45 C
ATOM 5174 O ALA B 761 162.046 158.729 238.321 1.00111.45 O

ATOM 5175 CB ALA B 761 160.230 159.326 236.084 1.00111.45 C
ATOM 5176 N ILE B 762 162.644 160.884 238.071 1.00112.60 N
ATOM 5177 CA ILE B 762 163.947 160.709 238.698 1.00112.60 C
ATOM 5178 C ILE B 762 163.859 161.197 240.135 1.00112.60 C
ATOM 5179 O ILE B 762 164.512 160.655 241.033 1.00112.60 O
ATOM 5180 CB ILE B 762 165.048 161.454 237.924 1.00112.60 C
ATOM 5181 CG1 ILE B 762 165.550 160.596 236.762 1.00112.60 C
ATOM 5182 CG2 ILE B 762 166.189 161.832 238.852 1.00112.60 C
ATOM 5183 CD1 ILE B 762 166.619 161.264 235.929 1.00112.60 C
ATOM 5184 N ALA B 763 163.048 162.230 240.359 1.00116.58 N
ATOM 5185 CA ALA B 763 162.834 162.731 241.710 1.00116.58 C
ATOM 5186 C ALA B 763 161.903 161.831 242.510 1.00116.58 C
ATOM 5187 O ALA B 763 162.045 161.735 243.735 1.00116.58 O
ATOM 5188 CB ALA B 763 162.275 164.153 241.664 1.00116.58 C
ATOM 5189 N VAL B 764 160.948 161.175 241.849 1.00119.21 N
ATOM 5190 CA VAL B 764 160.021 160.310 242.574 1.00119.21 C
ATOM 5191 C VAL B 764 160.776 159.163 243.238 1.00119.21 C
ATOM 5192 O VAL B 764 160.500 158.796 244.385 1.00119.21 O
ATOM 5193 CB VAL B 764 158.914 159.797 241.635 1.00119.21 C
ATOM 5194 CG1 VAL B 764 159.433 158.679 240.747 1.00119.21 C
ATOM 5195 CG2 VAL B 764 157.712 159.334 242.438 1.00119.21 C
ATOM 5196 N VAL B 765 161.754 158.593 242.533 1.00120.59 N
ATOM 5197 CA VAL B 765 162.510 157.469 243.082 1.00120.59 C
ATOM 5198 C VAL B 765 163.346 157.926 244.270 1.00120.59 C
ATOM 5199 O VAL B 765 163.456 157.228 245.285 1.00120.59 O
ATOM 5200 CB VAL B 765 163.383 156.822 241.995 1.00120.59 C
ATOM 5201 CG1 VAL B 765 164.230 155.715 242.593 1.00120.59 C
ATOM 5202 CG2 VAL B 765 162.515 156.284 240.873 1.00120.59 C
ATOM 5203 N ILE B 766 163.964 159.098 244.152 1.00122.89 N
ATOM 5204 CA ILE B 766 164.733 159.675 245.248 1.00122.89 C
ATOM 5205 C ILE B 766 163.832 159.813 246.465 1.00122.89 C
ATOM 5206 O ILE B 766 164.178 159.364 247.564 1.00122.89 O
ATOM 5207 CB ILE B 766 165.344 161.032 244.855 1.00122.89 C
ATOM 5208 CG1 ILE B 766 166.436 160.835 243.804 1.00122.89 C

ATOM 5209 CG2 ILE B 766 165.895 161.742 246.079 1.00122.89 C
ATOM 5210 CD1 ILE B 766 167.520 159.874 244.234 1.00122.89 C
ATOM 5211 N ILE B 767 162.666 160.434 246.278 1.00124.95 N
ATOM 5212 CA ILE B 767 161.731 160.608 247.388 1.00124.95 C
ATOM 5213 C ILE B 767 161.387 159.259 248.006 1.00124.95 C
ATOM 5214 O ILE B 767 161.320 159.113 249.232 1.00124.95 O
ATOM 5215 CB ILE B 767 160.469 161.351 246.918 1.00124.95 C
ATOM 5216 CG1 ILE B 767 160.834 162.745 246.408 1.00124.95 C
ATOM 5217 CG2 ILE B 767 159.461 161.445 248.046 1.00124.95 C
ATOM 5218 CD1 ILE B 767 161.794 163.488 247.305 1.00124.95 C
ATOM 5219 N ILE B 768 161.161 158.251 247.162 1.00128.30 N
ATOM 5220 CA ILE B 768 160.822 156.920 247.664 1.00128.30 C
ATOM 5221 C ILE B 768 161.931 156.396 248.567 1.00128.30 C
ATOM 5222 O ILE B 768 161.699 156.046 249.729 1.00128.30 O
ATOM 5223 CB ILE B 768 160.550 155.956 246.497 1.00128.30 C
ATOM 5224 CG1 ILE B 768 159.357 156.437 245.673 1.00128.30 C
ATOM 5225 CG2 ILE B 768 160.308 154.551 247.018 1.00128.30 C
ATOM 5226 CD1 ILE B 768 158.052 156.383 246.418 1.00128.30 C
ATOM 5227 N TYR B 769 163.149 156.330 248.039 1.00134.80 N
ATOM 5228 CA TYR B 769 164.284 155.755 248.759 1.00134.80 C
ATOM 5229 C TYR B 769 164.393 156.283 250.183 1.00134.80 C
ATOM 5230 O TYR B 769 165.123 155.731 251.005 1.00134.80 O
ATOM 5231 CB TYR B 769 165.584 156.037 248.007 1.00134.80 C
ATOM 5232 CG TYR B 769 166.818 155.465 248.668 1.00134.80 C
ATOM 5233 CD1 TYR B 769 167.128 154.117 248.555 1.00134.80 C
ATOM 5234 CD2 TYR B 769 167.673 156.273 249.403 1.00134.80 C
ATOM 5235 CE1 TYR B 769 168.257 153.590 249.155 1.00134.80 C
ATOM 5236 CE2 TYR B 769 168.804 155.757 250.007 1.00134.80 C
ATOM 5237 CZ TYR B 769 169.092 154.415 249.879 1.00134.80 C
ATOM 5238 OH TYR B 769 170.216 153.895 250.479 1.00134.80 O
ATOM 5239 N LEU B 770 163.518 159.106 250.283 1.00141.15 N
ATOM 5240 CA LEU B 770 164.147 159.030 251.596 1.00141.15 C
ATOM 5241 C LEU B 770 163.212 158.386 252.611 1.00141.15 C
ATOM 5242 O LEU B 770 163.581 158.177 253.766 1.00141.15 O

ATOM 5243 CB LEU B 770 164.563 160.422 252.068 1.00141.15 C
ATOM 5244 CG LEU B 770 165.321 161.257 251.036 1.00141.15 C
ATOM 5245 CD1 LEU B 770 165.335 162.724 251.433 1.00141.15 C
ATOM 5246 CD2 LEU B 770 166.735 160.730 250.857 1.00141.15 C
ATOM 5247 N ILE B 771 161.995 158.068 252.165 1.00142.28 N
ATOM 5248 CA ILE B 771 160.975 157.551 253.075 1.00142.28 C
ATOM 5249 C ILE B 771 161.411 156.218 253.671 1.00142.28 C
ATOM 5250 O ILE B 771 161.303 155.991 254.881 1.00142.28 O
ATOM 5251 CB ILE B 771 159.625 157.426 252.348 1.00142.28 C
ATOM 5252 CG1 ILE B 771 159.177 158.792 251.826 1.00142.28 C
ATOM 5253 CG2 ILE B 771 158.578 156.830 253.272 1.00142.28 C
ATOM 5254 CD1 ILE B 771 157.750 158.819 251.337 1.00142.28 C
ATOM 5255 N TYR B 772 161.907 155.313 252.825 1.00146.80 N
ATOM 5256 CA TYR B 772 162.254 153.974 253.292 1.00146.80 C
ATOM 5257 C TYR B 772 163.277 154.027 254.419 1.00146.80 C
ATOM 5258 O TYR B 772 163.155 153.313 255.420 1.00146.80 O
ATOM 5259 CB TYR B 772 162.777 153.134 252.127 1.00146.80 C
ATOM 5260 CG TYR B 772 163.027 151.687 252.479 1.00146.80 C
ATOM 5261 CD1 TYR B 772 161.992 150.762 252.472 1.00146.80 C
ATOM 5262 CD2 TYR B 772 164.298 151.243 252.814 1.00146.80 C
ATOM 5263 CE1 TYR B 772 162.215 149.436 252.791 1.00146.80 C
ATOM 5264 CE2 TYR B 772 164.532 149.920 253.134 1.00146.80 C
ATOM 5265 CZ TYR B 772 163.487 149.022 253.121 1.00146.80 C
ATOM 5266 OH TYR B 772 163.717 147.703 253.440 1.00146.80 O
ATOM 5267 N THR B 773 164.299 154.871 254.272 1.00149.19 N
ATOM 5268 CA THR B 773 165.308 154.997 255.319 1.00149.19 C
ATOM 5269 C THR B 773 164.691 155.505 256.615 1.00149.19 C
ATOM 5270 O THR B 773 164.912 154.934 257.689 1.00149.19 O
ATOM 5271 CB THR B 773 166.432 155.927 254.861 1.00149.19 C
ATOM 5272 OG1 THR B 773 166.000 157.289 254.967 1.00149.19 O
ATOM 5273 CG2 THR B 773 166.815 155.630 253.421 1.00149.19 C
ATOM 5274 N ARG B 774 163.914 156.589 256.533 1.00151.10 N
ATOM 5275 CA ARG B 774 163.292 157.150 257.729 1.00151.10 C
ATOM 5276 C ARG B 774 162.532 156.087 258.510 1.00151.10 C

ATOM 5277 O ARG B 774 162.550 156.083 259.746 1.00151.10 O
ATOM 5278 CB ARG B 774 162.363 158.301 257.344 1.00151.10 C
ATOM 5279 CG ARG B 774 162.985 159.303 256.386 1.00151.10 C
ATOM 5280 CD ARG B 774 164.263 159.889 256.957 1.00151.10 C
ATOM 5281 NE ARG B 774 164.991 160.688 255.976 1.00151.10 N
ATOM 5282 CZ ARG B 774 164.813 161.991 255.792 1.00151.10 C
ATOM 5283 NH1 ARG B 774 163.922 162.650 256.522 1.00151.10 N
ATOM 5284 NH2 ARG B 774 165.521 162.638 254.878 1.00151.10 N
ATOM 5285 N GLN B 775 161.857 155.174 257.808 1.00154.55 N
ATOM 5286 CA GLN B 775 161.136 154.109 258.494 1.00154.55 C
ATOM 5287 C GLN B 775 162.086 153.153 259.204 1.00154.55 C
ATOM 5288 O GLN B 775 161.800 152.716 260.324 1.00154.55 O
ATOM 5289 CB GLN B 775 160.257 153.347 257.501 1.00154.55 C
ATOM 5290 CG GLN B 775 159.599 152.096 258.070 1.00154.55 C
ATOM 5291 CD GLN B 775 160.490 150.872 257.984 1.00154.55 C
ATOM 5292 OE1 GLN B 775 160.992 150.529 256.914 1.00154.55 O
ATOM 5293 NE2 GLN B 775 160.698 150.211 259.116 1.00154.55 N
ATOM 5294 N ARG B 776 163.216 152.820 258.576 1.00157.83 N
ATOM 5295 CA ARG B 776 164.125 151.844 259.168 1.00157.83 C
ATOM 5296 C ARG B 776 164.790 152.395 260.422 1.00157.83 C
ATOM 5297 O ARG B 776 165.023 151.654 261.384 1.00157.83 O
ATOM 5298 CB ARG B 776 165.174 151.418 258.141 1.00157.83 C
ATOM 5299 CG ARG B 776 166.309 150.591 258.717 1.00157.83 C
ATOM 5300 CD ARG B 776 166.996 149.775 257.635 1.00157.83 C
ATOM 5301 NE ARG B 776 166.101 148.777 257.055 1.00157.83 N
ATOM 5302 CZ ARG B 776 166.488 147.822 256.216 1.00157.83 C
ATOM 5303 NH1 ARG B 776 167.760 147.731 255.853 1.00157.83 N
ATOM 5304 NH2 ARG B 776 165.603 146.958 255.739 1.00157.83 N
ATOM 5305 N ARG B 777 165.104 153.693 260.434 1.00159.57 N
ATOM 5306 CA ARG B 777 165.677 154.292 261.634 1.00159.57 C
ATOM 5307 C ARG B 777 164.687 154.282 262.791 1.00159.57 C
ATOM 5308 O ARG B 777 165.096 154.227 263.956 1.00159.57 O
ATOM 5309 CB ARG B 777 166.140 155.719 261.345 1.00159.57 C
ATOM 5310 CG ARG B 777 166.634 156.466 262.575 1.00159.57 C

```
ATOM   5311  CD  ARG B 777     167.044 157.889 262.236  1.00159.57           C
ATOM   5312  NE  ARG B 777     165.890 158.737 261.954  1.00159.57           N
ATOM   5313  CZ  ARG B 777     165.963 159.935 261.385  1.00159.57           C
ATOM   5314  NH1 ARG B 777     167.141 160.433 261.033  1.00159.57           N
ATOM   5315  NH2 ARG B 777     164.859 160.637 261.166  1.00159.57           N
ATOM   5316  N   LEU B 778     163.390 154.338 262.493  1.00161.40           N
ATOM   5317  CA  LEU B 778     162.338 154.316 263.507  1.00161.40           C
ATOM   5318  C   LEU B 778     161.624 152.973 263.554  1.00161.40           C
ATOM   5319  O   LEU B 778     160.410 152.911 263.767  1.00161.40           O
ATOM   5320  CB  LEU B 778     161.340 155.444 263.257  1.00161.40           C
ATOM   5321  CG  LEU B 778     161.842 156.861 263.539  1.00161.40           C
ATOM   5322  CD1 LEU B 778     160.677 157.797 263.818  1.00161.40           C
ATOM   5323  CD2 LEU B 778     162.824 156.860 264.700  1.00161.40           C
ATOM   5324  N   CYS B 779     162.357 151.882 263.352  1.00163.89           N
ATOM   5325  CA  CYS B 779     161.774 150.544 263.373  1.00163.89           C
ATOM   5326  C   CYS B 779     160.997 150.297 264.660  1.00163.89           C
ATOM   5327  O   CYS B 779     159.799 150.573 264.734  1.00163.89           O
ATOM   5328  CB  CYS B 779     162.865 149.485 263.209  1.00163.89           C
ATOM   5329  SG  CYS B 779     162.342 147.804 263.617  1.00163.89           S
TER

HETATM 5330  C1  NAG B1001     177.393 202.524 200.576  1.00103.19           C
HETATM 5331  C2  NAG B1001     178.431 203.313 199.785  1.00103.19           C
HETATM 5332  C3  NAG B1001     177.758 204.095 198.663  1.00103.19           C
HETATM 5333  C4  NAG B1001     176.894 203.173 197.814  1.00103.19           C
HETATM 5334  C5  NAG B1001     175.943 202.367 198.696  1.00103.19           C
HETATM 5335  C6  NAG B1001     175.161 201.328 197.928  1.00103.19           C
HETATM 5336  C7  NAG B1001     180.403 203.910 201.117  1.00103.19           C
HETATM 5337  C8  NAG B1001     181.037 204.942 201.998  1.00103.19           C
HETATM 5338  N2  NAG B1001     179.184 204.203 200.653  1.00103.19           N
HETATM 5339  O3  NAG B1001     178.758 204.694 197.848  1.00103.19           O
HETATM 5340  O4  NAG B1001     176.141 203.945 196.885  1.00103.19           O
HETATM 5341  O5  NAG B1001     176.684 201.663 199.703  1.00103.19           O
HETATM 5342  O6  NAG B1001     174.997 200.138 198.687  1.00103.19           O
```

HETATM 5343 O7 NAG B1001 180.970 202.858 200.835 1.00103.19 O
HETATM 5344 H1 NAG B1001 176.764 203.147 200.985 1.00103.19 H
HETATM 5345 H2 NAG B1001 179.056 202.690 199.372 1.00103.19 H
HETATM 5346 H3 NAG B1001 177.195 204.792 199.050 1.00103.19 H
HETATM 5347 H4 NAG B1001 177.474 202.559 197.327 1.00103.19 H
HETATM 5348 H5 NAG B1001 175.320 202.975 199.137 1.00103.19 H
HETATM 5349 H61 NAG B1001 175.639 201.116 197.105 1.00103.19 H
HETATM 5350 H62 NAG B1001 174.282 201.689 197.705 1.00103.19 H
HETATM 5351 H81 NAG B1001 180.406 205.205 202.695 1.00103.19 H
HETATM 5352 H82 NAG B1001 181.278 205.722 201.463 1.00103.19 H
HETATM 5353 H83 NAG B1001 181.839 204.568 202.409 1.00103.19 H
HETATM 5354 HN2 NAG B1001 178.805 204.999 200.891 1.00103.19 H
HETATM 5355 HO3 NAG B1001 178.714 204.356 197.028 1.00103.19 H
HETATM 5356 HO6 NAG B1001 175.640 200.088 199.297 1.00103.19 H
HETATM 5357 C1 NAG B1002 176.178 204.911 195.908 1.00101.43 C
HETATM 5358 C2 NAG B1002 175.551 206.272 196.088 1.00101.43 C
HETATM 5359 C3 NAG B1002 175.831 207.128 194.867 1.00101.43 C
HETATM 5360 C4 NAG B1002 177.190 206.787 194.267 1.00101.43 C
HETATM 5361 C5 NAG B1002 178.151 206.162 195.285 1.00101.43 C
HETATM 5362 C6 NAG B1002 178.589 207.133 196.357 1.00101.43 C
HETATM 5363 C7 NAG B1002 173.594 205.427 197.302 1.00101.43 C
HETATM 5364 C8 NAG B1002 172.098 205.430 197.398 1.00101.43 C
HETATM 5365 N2 NAG B1002 174.119 206.163 196.317 1.00101.43 N
HETATM 5366 O3 NAG B1002 175.787 208.504 195.225 1.00101.43 O
HETATM 5367 O4 NAG B1002 177.021 205.895 193.171 1.00101.43 O
HETATM 5368 O5 NAG B1002 177.581 205.027 195.963 1.00101.43 O
HETATM 5369 O6 NAG B1002 179.994 207.075 196.564 1.00101.43 O
HETATM 5370 O7 NAG B1002 174.293 204.787 198.079 1.00101.43 O
HETATM 5371 H1 NAG B1002 175.918 204.552 195.040 1.00101.43 H
HETATM 5372 H2 NAG B1002 175.959 206.701 196.863 1.00101.43 H
HETATM 5373 H3 NAG B1002 175.145 206.949 194.198 1.00101.43 H
HETATM 5374 H4 NAG B1002 177.590 207.610 193.932 1.00101.43 H
HETATM 5375 H5 NAG B1002 178.943 205.861 194.803 1.00101.43 H
HETATM 5376 H61 NAG B1002 178.136 206.909 197.190 1.00101.43 H

HETATM	5377	H62	NAG	B1002	178.340	208.038	196.092	1.00	101.43	H
HETATM	5378	H81	NAG	B1002	171.739	204.669	196.903	1.00	101.43	H
HETATM	5379	H82	NAG	B1002	171.749	206.258	197.019	1.00	101.43	H
HETATM	5380	H83	NAG	B1002	171.832	205.362	198.335	1.00	101.43	H
HETATM	5381	HN2	NAG	B1002	173.558	206.624	195.766	1.00	101.43	H
HETATM	5382	HO4	NAG	B1002	177.113	206.350	192.414	1.00	101.43	H
HETATM	5383	HO6	NAG	B1002	180.318	206.337	196.192	1.00	101.43	H
HETATM	5384	C1	NAG	B1003	173.194	208.563	193.845	1.00	100.02	C
HETATM	5385	C2	NAG	B1003	173.569	208.738	192.379	1.00	100.02	C
HETATM	5386	C3	NAG	B1003	172.663	209.779	191.724	1.00	100.02	C
HETATM	5387	C4	NAG	B1003	171.200	209.424	191.948	1.00	100.02	C
HETATM	5388	C5	NAG	B1003	170.934	209.207	193.434	1.00	100.02	C
HETATM	5389	C6	NAG	B1003	169.532	208.726	193.720	1.00	100.02	C
HETATM	5390	C7	NAG	B1003	175.853	208.398	191.545	1.00	100.02	C
HETATM	5391	C8	NAG	B1003	177.250	208.939	191.506	1.00	100.02	C
HETATM	5392	N2	NAG	B1003	174.965	209.116	192.240	1.00	100.02	N
HETATM	5393	O3	NAG	B1003	172.935	209.845	190.329	1.00	100.02	O
HETATM	5394	O4	NAG	B1003	170.364	210.470	191.468	1.00	100.02	O
HETATM	5395	O5	NAG	B1003	171.825	208.207	193.949	1.00	100.02	O
HETATM	5396	O6	NAG	B1003	169.499	207.897	194.873	1.00	100.02	O
HETATM	5397	O7	NAG	B1003	175.543	207.360	190.970	1.00	100.02	O
HETATM	5398	H1	NAG	B1003	173.351	209.401	194.318	1.00	100.02	H
HETATM	5399	H2	NAG	B1003	173.427	207.885	191.928	1.00	100.02	H
HETATM	5400	H3	NAG	B1003	172.842	210.651	192.123	1.00	100.02	H
HETATM	5401	H4	NAG	B1003	170.990	208.605	191.462	1.00	100.02	H
HETATM	5402	H5	NAG	B1003	171.089	210.046	193.909	1.00	100.02	H
HETATM	5403	H61	NAG	B1003	169.208	208.221	192.950	1.00	100.02	H
HETATM	5404	H62	NAG	B1003	168.952	209.498	193.861	1.00	100.02	H
HETATM	5405	H81	NAG	B1003	177.529	209.187	192.407	1.00	100.02	H
HETATM	5406	H82	NAG	B1003	177.276	209.725	190.928	1.00	100.02	H
HETATM	5407	H83	NAG	B1003	177.852	208.256	191.157	1.00	100.02	H
HETATM	5408	HN2	NAG	B1003	175.249	209.881	192.649	1.00	100.02	H
HETATM	5409	HO3	NAG	B1003	172.241	210.210	189.913	1.00	100.02	H
HETATM	5410	HO4	NAG	B1003	169.567	210.139	191.257	1.00	100.02	H

HETATM 5411 HO6 NAG B1003 170.327 207.764 195.165 1.00100.02 H
HETATM 5412 C1 NAG B1004 164.769 208.955 163.021 1.00 83.30 C
HETATM 5413 C2 NAG B1004 165.910 209.896 162.685 1.00 83.30 C
HETATM 5414 C3 NAG B1004 165.618 210.618 161.379 1.00 83.30 C
HETATM 5415 C4 NAG B1004 165.329 209.608 160.278 1.00 83.30 C
HETATM 5416 C5 NAG B1004 164.245 208.628 160.721 1.00 83.30 C
HETATM 5417 C6 NAG B1004 164.047 207.494 159.744 1.00 83.30 C
HETATM 5418 C7 NAG B1004 166.828 210.547 164.858 1.00 83.30 C
HETATM 5419 C8 NAG B1004 166.963 211.643 165.864 1.00 83.30 C
HETATM 5420 N2 NAG B1004 166.134 210.847 163.759 1.00 83.30 N
HETATM 5421 O3 NAG B1004 166.738 211.419 161.023 1.00 83.30 O
HETATM 5422 O4 NAG B1004 164.896 210.286 159.105 1.00 83.30 O
HETATM 5423 O5 NAG B1004 164.600 208.024 161.973 1.00 83.30 O
HETATM 5424 O6 NAG B1004 162.800 207.590 159.072 1.00 83.30 O
HETATM 5425 O7 NAG B1004 167.324 209.439 165.032 1.00 83.30 O
HETATM 5426 H1 NAG B1004 163.951 209.474 163.124 1.00 83.30 H
HETATM 5427 H2 NAG B1004 166.720 209.366 162.567 1.00 83.30 H
HETATM 5428 H3 NAG B1004 164.836 211.190 161.500 1.00 83.30 H
HETATM 5429 H4 NAG B1004 166.145 209.113 160.081 1.00 83.30 H
HETATM 5430 H5 NAG B1004 163.406 209.114 160.834 1.00 83.30 H
HETATM 5431 H61 NAG B1004 164.084 206.650 160.232 1.00 83.30 H
HETATM 5432 H62 NAG B1004 164.771 207.514 159.091 1.00 83.30 H
HETATM 5433 H81 NAG B1004 166.153 211.683 166.406 1.00 83.30 H
HETATM 5434 H82 NAG B1004 167.083 212.489 165.395 1.00 83.30 H
HETATM 5435 H83 NAG B1004 167.737 211.469 166.430 1.00 83.30 H
HETATM 5436 HN2 NAG B1004 165.786 211.686 163.679 1.00 83.30 H
HETATM 5437 HO3 NAG B1004 167.410 210.893 160.781 1.00 83.30 H
HETATM 5438 HO4 NAG B1004 164.953 211.163 159.235 1.00 83.30 H
HETATM 5439 HO6 NAG B1004 162.461 208.403 159.191 1.00 83.30 H
HETATM 5440 C1 NAG B1005 152.089 210.593 162.951 1.00122.28 C
HETATM 5441 C2 NAG B1005 152.139 210.460 164.466 1.00122.28 C
HETATM 5442 C3 NAG B1005 151.643 211.747 165.117 1.00122.28 C
HETATM 5443 C4 NAG B1005 152.447 212.933 164.603 1.00122.28 C
HETATM 5444 C5 NAG B1005 152.416 212.971 163.077 1.00122.28 C

HETATM	5445	C6	NAG B1005	153.315	214.039	162.500	1.00122.28	C
HETATM	5446	C7	NAG B1005	151.360	208.896	166.189	1.00122.28	C
HETATM	5447	C8	NAG B1005	150.506	207.701	166.482	1.00122.28	C
HETATM	5448	N2	NAG B1005	151.362	209.319	164.921	1.00122.28	N
HETATM	5449	O3	NAG B1005	151.769	211.656	166.532	1.00122.28	O
HETATM	5450	O4	NAG B1005	151.911	214.146	165.117	1.00122.28	O
HETATM	5451	O5	NAG B1005	152.869	211.718	162.541	1.00122.28	O
HETATM	5452	O6	NAG B1005	152.766	214.598	161.315	1.00122.28	O
HETATM	5453	O7	NAG B1005	152.014	209.457	167.063	1.00122.28	O
HETATM	5454	H1	NAG B1005	151.164	210.724	162.673	1.00122.28	H
HETATM	5455	H2	NAG B1005	153.071	210.329	164.726	1.00122.28	H
HETATM	5456	H3	NAG B1005	150.705	211.878	164.887	1.00122.28	H
HETATM	5457	H4	NAG B1005	153.372	212.843	164.898	1.00122.28	H
HETATM	5458	H5	NAG B1005	151.499	213.131	162.785	1.00122.28	H
HETATM	5459	H61	NAG B1005	154.185	213.645	162.296	1.00122.28	H
HETATM	5460	H62	NAG B1005	153.432	214.746	163.162	1.00122.28	H
HETATM	5461	H81	NAG B1005	149.570	207.926	166.325	1.00122.28	H
HETATM	5462	H82	NAG B1005	150.626	207.438	167.414	1.00122.28	H
HETATM	5463	H83	NAG B1005	150.770	206.966	165.897	1.00122.28	H
HETATM	5464	HN2	NAG B1005	150.861	208.864	164.310	1.00122.28	H
HETATM	5465	HO3	NAG B1005	151.095	212.087	166.916	1.00122.28	H
HETATM	5466	HO4	NAG B1005	152.512	214.537	165.641	1.00122.28	H
HETATM	5467	HO6	NAG B1005	151.948	214.901	161.485	1.00122.28	H
HETATM	5468	C1	NAG B1007	155.322	196.342	130.477	1.00138.87	C
HETATM	5469	C2	NAG B1007	154.332	197.497	130.636	1.00138.87	C
HETATM	5470	C3	NAG B1007	154.616	198.589	129.605	1.00138.87	C
HETATM	5471	C4	NAG B1007	156.082	198.998	129.647	1.00138.87	C
HETATM	5472	C5	NAG B1007	156.976	197.771	129.519	1.00138.87	C
HETATM	5473	C6	NAG B1007	158.444	198.096	129.661	1.00138.87	C
HETATM	5474	C7	NAG B1007	151.894	197.817	130.507	1.00138.87	C
HETATM	5475	C8	NAG B1007	150.567	197.137	130.371	1.00138.87	C
HETATM	5476	N2	NAG B1007	152.965	197.016	130.511	1.00138.87	N
HETATM	5477	O3	NAG B1007	153.805	199.728	129.872	1.00138.87	O
HETATM	5478	O4	NAG B1007	156.364	199.899	128.581	1.00138.87	O

HETATM 5479 O5 NAG B1007 156.654 196.837 130.558 1.00138.87 O
HETATM 5480 O6 NAG B1007 158.883 197.938 131.003 1.00138.87 O
HETATM 5481 O7 NAG B1007 151.993 199.035 130.606 1.00138.87 O
HETATM 5482 H1 NAG B1007 155.186 195.918 129.609 1.00138.87 H
HETATM 5483 H2 NAG B1007 154.447 197.882 131.525 1.00138.87 H
HETATM 5484 H3 NAG B1007 154.406 198.247 128.715 1.00138.87 H
HETATM 5485 H4 NAG B1007 156.263 199.441 130.497 1.00138.87 H
HETATM 5486 H5 NAG B1007 156.819 197.353 128.651 1.00138.87 H
HETATM 5487 H61 NAG B1007 158.593 199.020 129.384 1.00138.87 H
HETATM 5488 H62 NAG B1007 158.960 197.505 129.081 1.00138.87 H
HETATM 5489 H81 NAG B1007 150.473 196.782 129.466 1.00138.87 H
HETATM 5490 H82 NAG B1007 149.853 197.779 130.546 1.00138.87 H
HETATM 5491 H83 NAG B1007 150.511 196.405 131.013 1.00138.87 H
HETATM 5492 HN2 NAG B1007 152.830 196.117 130.435 1.00138.87 H
HETATM 5493 HO4 NAG B1007 155.632 200.021 128.096 1.00138.87 H
HETATM 5494 HO6 NAG B1007 159.760 197.803 131.015 1.00138.87 H
HETATM 5495 C1 NAG B1008 154.051 201.053 130.146 1.00142.45 C
HETATM 5496 C2 NAG B1008 154.790 202.224 130.795 1.00142.45 C
HETATM 5497 C3 NAG B1008 154.495 203.516 130.039 1.00142.45 C
HETATM 5498 C4 NAG B1008 154.819 203.347 128.562 1.00142.45 C
HETATM 5499 C5 NAG B1008 154.068 202.143 128.003 1.00142.45 C
HETATM 5500 C6 NAG B1008 154.421 201.848 126.566 1.00142.45 C
HETATM 5501 C7 NAG B1008 154.617 201.393 133.099 1.00142.45 C
HETATM 5502 C8 NAG B1008 154.184 201.709 134.500 1.00142.45 C
HETATM 5503 N2 NAG B1008 154.430 202.361 132.197 1.00142.45 N
HETATM 5504 O3 NAG B1008 155.260 204.579 130.596 1.00142.45 O
HETATM 5505 O4 NAG B1008 154.444 204.512 127.835 1.00142.45 O
HETATM 5506 O5 NAG B1008 154.400 200.970 128.760 1.00142.45 O
HETATM 5507 O6 NAG B1008 153.487 202.436 125.671 1.00142.45 O
HETATM 5508 O7 NAG B1008 155.109 200.310 132.799 1.00142.45 O
HETATM 5509 H1 NAG B1008 153.090 201.196 130.224 1.00142.45 H
HETATM 5510 H2 NAG B1008 155.750 202.051 130.737 1.00142.45 H
HETATM 5511 H3 NAG B1008 153.546 203.728 130.133 1.00142.45 H
HETATM 5512 H4 NAG B1008 155.777 203.197 128.454 1.00142.45 H

HETATM 5513 H5 NAG B1008 153.109 202.305 128.074 1.00142.45 H
HETATM 5514 H61 NAG B1008 154.433 200.881 126.434 1.00142.45 H
HETATM 5515 H62 NAG B1008 155.310 202.207 126.383 1.00142.45 H
HETATM 5516 H81 NAG B1008 153.214 201.625 134.569 1.00142.45 H
HETATM 5517 H82 NAG B1008 154.445 202.623 134.722 1.00142.45 H
HETATM 5518 H83 NAG B1008 154.608 201.087 135.120 1.00142.45 H
HETATM 5519 HN2 NAG B1008 154.061 203.149 132.474 1.00142.45 H
HETATM 5520 HO3 NAG B1008 154.923 204.799 131.388 1.00142.45 H
HETATM 5521 HO4 NAG B1008 154.873 204.524 127.057 1.00142.45 H
HETATM 5522 HO6 NAG B1008 152.907 202.929 126.128 1.00142.45 H
HETATM 5523 C1 NAG B1009 160.069 188.834 120.771 1.00114.80 C
HETATM 5524 C2 NAG B1009 158.889 189.785 120.900 1.00114.80 C
HETATM 5525 C3 NAG B1009 158.729 190.598 119.621 1.00114.80 C
HETATM 5526 C4 NAG B1009 160.037 191.294 119.270 1.00114.80 C
HETATM 5527 C5 NAG B1009 161.191 190.294 119.248 1.00114.80 C
HETATM 5528 C6 NAG B1009 162.537 190.957 119.076 1.00114.80 C
HETATM 5529 C7 NAG B1009 157.273 188.800 122.458 1.00114.80 C
HETATM 5530 C8 NAG B1009 155.986 188.049 122.597 1.00114.80 C
HETATM 5531 N2 NAG B1009 157.665 189.066 121.208 1.00114.80 N
HETATM 5532 O3 NAG B1009 157.698 191.562 119.802 1.00114.80 O
HETATM 5533 O4 NAG B1009 159.931 191.909 117.992 1.00114.80 O
HETATM 5534 O5 NAG B1009 161.247 189.572 120.488 1.00114.80 O
HETATM 5535 O6 NAG B1009 163.240 191.028 120.309 1.00114.80 O
HETATM 5536 O7 NAG B1009 157.932 189.147 123.432 1.00114.80 O
HETATM 5537 H1 NAG B1009 159.901 188.206 120.042 1.00114.80 H
HETATM 5538 H2 NAG B1009 159.077 190.406 121.628 1.00114.80 H
HETATM 5539 H3 NAG B1009 158.477 189.999 118.893 1.00114.80 H
HETATM 5540 H4 NAG B1009 160.220 191.981 119.939 1.00114.80 H
HETATM 5541 H5 NAG B1009 161.050 189.662 118.519 1.00114.80 H
HETATM 5542 H61 NAG B1009 162.406 191.860 118.731 1.00114.80 H
HETATM 5543 H62 NAG B1009 163.065 190.443 118.436 1.00114.80 H
HETATM 5544 H81 NAG B1009 156.144 187.102 122.422 1.00114.80 H
HETATM 5545 H82 NAG B1009 155.340 188.396 121.954 1.00114.80 H
HETATM 5546 H83 NAG B1009 155.643 188.164 123.503 1.00114.80 H

```
HETATM 5547  HN2 NAG B1009     157.139 188.785 120.518  1.00114.80          H
HETATM 5548  HO3 NAG B1009     157.316 191.734 119.019  1.00114.80          H
HETATM 5549  HO4 NAG B1009     160.593 191.624 117.473  1.00114.80          H
HETATM 5550  HO6 NAG B1009     162.872 190.465 120.888  1.00114.80          H
HETATM 5551  C1  NAG B1010     191.318 172.997 175.822  1.00 67.96          C
HETATM 5552  C2  NAG B1010     192.434 172.234 176.503  1.00 67.96          C
HETATM 5553  C3  NAG B1010     193.669 173.112 176.608  1.00 67.96          C
HETATM 5554  C4  NAG B1010     194.050 173.645 175.234  1.00 67.96          C
HETATM 5555  C5  NAG B1010     192.846 174.286 174.546  1.00 67.96          C
HETATM 5556  C6  NAG B1010     193.117 174.637 173.103  1.00 67.96          C
HETATM 5557  C7  NAG B1010     192.747 170.900 178.537  1.00 67.96          C
HETATM 5558  C8  NAG B1010     192.172 170.518 179.867  1.00 67.96          C
HETATM 5559  N2  NAG B1010     192.024 171.761 177.814  1.00 67.96          N
HETATM 5560  O3  NAG B1010     194.745 172.357 177.151  1.00 67.96          O
HETATM 5561  O4  NAG B1010     195.084 174.614 175.363  1.00 67.96          O
HETATM 5562  O5  NAG B1010     191.729 173.385 174.540  1.00 67.96          O
HETATM 5563  O6  NAG B1010     191.910 174.895 172.399  1.00 67.96          O
HETATM 5564  O7  NAG B1010     193.816 170.454 178.138  1.00 67.96          O
HETATM 5565  H1  NAG B1010     191.111 173.794 176.342  1.00 67.96          H
HETATM 5566  H2  NAG B1010     192.656 171.461 175.950  1.00 67.96          H
HETATM 5567  H3  NAG B1010     193.474 173.862 177.199  1.00 67.96          H
HETATM 5568  H4  NAG B1010     194.370 172.904 174.685  1.00 67.96          H
HETATM 5569  H5  NAG B1010     192.593 175.093 175.033  1.00 67.96          H
HETATM 5570  H61 NAG B1010     193.577 173.886 172.680  1.00 67.96          H
HETATM 5571  H62 NAG B1010     193.690 175.425 173.064  1.00 67.96          H
HETATM 5572  H81 NAG B1010     191.740 171.294 180.272  1.00 67.96          H
HETATM 5573  H82 NAG B1010     192.887 170.207 180.453  1.00 67.96          H
HETATM 5574  H83 NAG B1010     191.518 169.804 179.747  1.00 67.96          H
HETATM 5575  HN2 NAG B1010     191.234 172.064 178.151  1.00 67.96          H
HETATM 5576  HO3 NAG B1010     194.712 172.398 178.038  1.00 67.96          H
HETATM 5577  HO4 NAG B1010     195.568 174.632 174.618  1.00 67.96          H
HETATM 5578  HO6 NAG B1010     191.740 174.216 171.852  1.00 67.96          H
HETATM 5579  C1  NAG B1011     188.557 181.169 174.427  1.00 74.66          C
HETATM 5580  C2  NAG B1011     189.950 181.578 173.979  1.00 74.66          C
```

```
HETATM 5581  C3  NAG B1011     189.868 182.388 172.694  1.00 74.66           C
HETATM 5582  C4  NAG B1011     189.092 181.616 171.636  1.00 74.66           C
HETATM 5583  C5  NAG B1011     187.742 181.162 172.186  1.00 74.66           C
HETATM 5584  C6  NAG B1011     186.996 180.254 171.237  1.00 74.66           C
HETATM 5585  C7  NAG B1011     191.361 181.744 175.977  1.00 74.66           C
HETATM 5586  C8  NAG B1011     192.004 182.667 176.967  1.00 74.66           C
HETATM 5587  N2  NAG B1011     190.637 182.329 175.017  1.00 74.66           N
HETATM 5588  O3  NAG B1011     191.181 182.670 172.225  1.00 74.66           O
HETATM 5589  O4  NAG B1011     188.884 182.439 170.494  1.00 74.66           O
HETATM 5590  O5  NAG B1011     187.926 180.423 173.401  1.00 74.66           O
HETATM 5591  O6  NAG B1011     185.613 180.189 171.557  1.00 74.66           O
HETATM 5592  O7  NAG B1011     191.490 180.527 176.044  1.00 74.66           O
HETATM 5593  H1  NAG B1011     188.034 181.974 174.602  1.00 74.66           H
HETATM 5594  H2  NAG B1011     190.460 180.767 173.790  1.00 74.66           H
HETATM 5595  H3  NAG B1011     189.405 183.227 172.878  1.00 74.66           H
HETATM 5596  H4  NAG B1011     189.610 180.831 171.376  1.00 74.66           H
HETATM 5597  H5  NAG B1011     187.195 181.948 172.376  1.00 74.66           H
HETATM 5598  H61 NAG B1011     187.381 179.360 171.289  1.00 74.66           H
HETATM 5599  H62 NAG B1011     187.099 180.591 170.327  1.00 74.66           H
HETATM 5600  H81 NAG B1011     191.311 183.159 177.447  1.00 74.66           H
HETATM 5601  H82 NAG B1011     192.585 183.294 176.496  1.00 74.66           H
HETATM 5602  H83 NAG B1011     192.530 182.145 177.601  1.00 74.66           H
HETATM 5603  HN2 NAG B1011     190.572 183.238 175.010  1.00 74.66           H
HETATM 5604  HO3 NAG B1011     191.718 182.812 172.918  1.00 74.66           H
HETATM 5605  HO4 NAG B1011     189.429 183.138 170.536  1.00 74.66           H
HETATM 5606  HO6 NAG B1011     185.419 180.820 172.150  1.00 74.66           H
HETATM 5607  C1  NAG B1012     174.143 199.920 150.723  1.00131.36           C
HETATM 5608  C2  NAG B1012     174.490 201.402 150.619  1.00131.36           C
HETATM 5609  C3  NAG B1012     175.857 201.578 149.964  1.00131.36           C
HETATM 5610  C4  NAG B1012     176.906 200.756 150.698  1.00131.36           C
HETATM 5611  C5  NAG B1012     176.455 199.302 150.813  1.00131.36           C
HETATM 5612  C6  NAG B1012     177.390 198.461 151.650  1.00131.36           C
HETATM 5613  C7  NAG B1012     173.476 203.457 149.735  1.00131.36           C
HETATM 5614  C8  NAG B1012     172.347 204.036 148.940  1.00131.36           C
```

HETATM	5615	N2	NAG B1012	173.470	202.127	149.878	1.00131.36	N
HETATM	5616	O3	NAG B1012	176.225	202.954	149.983	1.00131.36	O
HETATM	5617	O4	NAG B1012	178.141	200.811	149.993	1.00131.36	O
HETATM	5618	O5	NAG B1012	175.168	199.237	151.442	1.00131.36	O
HETATM	5619	O6	NAG B1012	177.550	199.006	152.952	1.00131.36	O
HETATM	5620	O7	NAG B1012	174.357	204.158	150.222	1.00131.36	O
HETATM	5621	H1	NAG B1012	174.069	199.539	149.828	1.00131.36	H
HETATM	5622	H2	NAG B1012	174.537	201.769	151.522	1.00131.36	H
HETATM	5623	H3	NAG B1012	175.810	201.276	149.037	1.00131.36	H
HETATM	5624	H4	NAG B1012	177.033	201.123	151.594	1.00131.36	H
HETATM	5625	H5	NAG B1012	176.394	198.917	149.918	1.00131.36	H
HETATM	5626	H61	NAG B1012	178.262	198.420	151.212	1.00131.36	H
HETATM	5627	H62	NAG B1012	177.027	197.559	151.724	1.00131.36	H
HETATM	5628	H81	NAG B1012	171.501	203.694	149.283	1.00131.36	H
HETATM	5629	H82	NAG B1012	172.446	203.782	148.002	1.00131.36	H
HETATM	5630	H83	NAG B1012	172.363	205.008	149.017	1.00131.36	H
HETATM	5631	HN2	NAG B1012	172.792	201.652	149.495	1.00131.36	H
HETATM	5632	HO3	NAG B1012	177.066	203.037	149.712	1.00131.36	H
HETATM	5633	HO4	NAG B1012	178.070	201.384	149.319	1.00131.36	H
HETATM	5634	HO6	NAG B1012	178.031	198.450	153.450	1.00131.36	H
HETATM	5635	C1	NAG B1013	176.275	176.996	121.874	1.00111.93	C
HETATM	5636	C2	NAG B1013	177.591	177.260	122.597	1.00111.93	C
HETATM	5637	C3	NAG B1013	178.767	177.017	121.656	1.00111.93	C
HETATM	5638	C4	NAG B1013	178.671	175.631	121.031	1.00111.93	C
HETATM	5639	C5	NAG B1013	177.298	175.423	120.398	1.00111.93	C
HETATM	5640	C6	NAG B1013	177.093	174.012	119.899	1.00111.93	C
HETATM	5641	C7	NAG B1013	177.104	178.949	124.309	1.00111.93	C
HETATM	5642	C8	NAG B1013	177.232	180.391	124.700	1.00111.93	C
HETATM	5643	N2	NAG B1013	177.631	178.614	123.128	1.00111.93	N
HETATM	5644	O3	NAG B1013	179.985	177.134	122.383	1.00111.93	O
HETATM	5645	O4	NAG B1013	179.665	175.484	120.024	1.00111.93	O
HETATM	5646	O5	NAG B1013	176.268	175.670	121.366	1.00111.93	O
HETATM	5647	O6	NAG B1013	178.332	173.342	119.715	1.00111.93	O
HETATM	5648	O7	NAG B1013	176.548	178.128	125.030	1.00111.93	O

HETATM 5649 H1 NAG B1013 176.187 177.624 121.132 1.00111.93 H
HETATM 5650 H2 NAG B1013 177.664 176.632 123.340 1.00111.93 H
HETATM 5651 H3 NAG B1013 178.751 177.687 120.946 1.00111.93 H
HETATM 5652 H4 NAG B1013 178.810 174.957 121.722 1.00111.93 H
HETATM 5653 H5 NAG B1013 177.194 176.047 119.655 1.00111.93 H
HETATM 5654 H61 NAG B1013 176.615 174.041 119.049 1.00111.93 H
HETATM 5655 H62 NAG B1013 176.559 173.521 120.552 1.00111.93 H
HETATM 5656 H81 NAG B1013 176.722 180.943 124.078 1.00111.93 H
HETATM 5657 H82 NAG B1013 178.172 180.651 124.670 1.00111.93 H
HETATM 5658 H83 NAG B1013 176.886 180.515 125.604 1.00111.93 H
HETATM 5659 HN2 NAG B1013 178.033 179.265 122.631 1.00111.93 H
HETATM 5660 HO3 NAG B1013 180.116 176.399 122.864 1.00111.93 H
HETATM 5661 HO4 NAG B1013 179.300 175.638 119.228 1.00111.93 H
HETATM 5662 HO6 NAG B1013 178.181 172.487 119.532 1.00111.93 H
HETATM 5663 C1 NAG B1014 142.644 177.775 123.540 1.00129.17 C
HETATM 5664 C2 NAG B1014 141.735 177.084 122.530 1.00129.17 C
HETATM 5665 C3 NAG B1014 142.031 177.588 121.121 1.00129.17 C
HETATM 5666 C4 NAG B1014 141.962 179.110 121.072 1.00129.17 C
HETATM 5667 C5 NAG B1014 142.858 179.713 122.150 1.00129.17 C
HETATM 5668 C6 NAG B1014 142.747 181.218 122.243 1.00129.17 C
HETATM 5669 C7 NAG B1014 140.872 174.785 122.439 1.00129.17 C
HETATM 5670 C8 NAG B1014 141.214 173.328 122.540 1.00129.17 C
HETATM 5671 N2 NAG B1014 141.889 175.639 122.598 1.00129.17 N
HETATM 5672 O3 NAG B1014 141.088 177.033 120.212 1.00129.17 O
HETATM 5673 O4 NAG B1014 142.386 179.573 119.795 1.00129.17 O
HETATM 5674 O5 NAG B1014 142.492 179.191 123.435 1.00129.17 O
HETATM 5675 O6 NAG B1014 142.276 181.627 123.520 1.00129.17 O
HETATM 5676 O7 NAG B1014 139.727 175.172 122.221 1.00129.17 O
HETATM 5677 H1 NAG B1014 143.570 177.535 123.347 1.00129.17 H
HETATM 5678 H2 NAG B1014 140.811 177.311 122.745 1.00129.17 H
HETATM 5679 H3 NAG B1014 142.928 177.304 120.864 1.00129.17 H
HETATM 5680 H4 NAG B1014 141.041 179.393 121.223 1.00129.17 H
HETATM 5681 H5 NAG B1014 143.786 179.476 121.960 1.00129.17 H
HETATM 5682 H61 NAG B1014 142.130 181.538 121.558 1.00129.17 H

HETATM	5683	H62	NAG	B	1014	143.626 181.612 122.089	1.00	129.17 H
HETATM	5684	H81	NAG	B	1014	142.136 173.228 122.842	1.00	129.17 H
HETATM	5685	H82	NAG	B	1014	141.111 172.909 121.664	1.00	129.17 H
HETATM	5686	H83	NAG	B	1014	140.615 172.896 123.178	1.00	129.17 H
HETATM	5687	HN2	NAG	B	1014	142.720 175.299 122.758	1.00	129.17 H
HETATM	5688	HO3	NAG	B	1014	140.367 176.768 120.658	1.00	129.17 H
HETATM	5689	HO4	NAG	B	1014	142.039 179.055 119.162	1.00	129.17 H
HETATM	5690	HO6	NAG	B	1014	141.843 182.398 123.443	1.00	129.17 H
HETATM	5691	C1	NAG	B	1015	172.415 204.065 157.464	1.00	93.55 C
HETATM	5692	C2	NAG	B	1015	172.102 205.349 158.228	1.00	93.55 C
HETATM	5693	C3	NAG	B	1015	172.972 206.492 157.715	1.00	93.55 C
HETATM	5694	C4	NAG	B	1015	174.443 206.099 157.753	1.00	93.55 C
HETATM	5695	C5	NAG	B	1015	174.654 204.776 157.020	1.00	93.55 C
HETATM	5696	C6	NAG	B	1015	176.069 204.258 157.131	1.00	93.55 C
HETATM	5697	C7	NAG	B	1015	170.065 206.495 158.980	1.00	93.55 C
HETATM	5698	C8	NAG	B	1015	168.609 206.732 158.715	1.00	93.55 C
HETATM	5699	N2	NAG	B	1015	170.693 205.688 158.119	1.00	93.55 N
HETATM	5700	O3	NAG	B	1015	172.759 207.650 158.515	1.00	93.55 O
HETATM	5701	O4	NAG	B	1015	175.231 207.111 157.138	1.00	93.55 O
HETATM	5702	O5	NAG	B	1015	173.802 203.766 157.578	1.00	93.55 O
HETATM	5703	O6	NAG	B	1015	176.113 203.025 157.835	1.00	93.55 O
HETATM	5704	O7	NAG	B	1015	170.648 207.014 159.926	1.00	93.55 O
HETATM	5705	H1	NAG	B	1015	172.189 204.189 156.523	1.00	93.55 H
HETATM	5706	H2	NAG	B	1015	172.317 205.211 159.170	1.00	93.55 H
HETATM	5707	H3	NAG	B	1015	172.722 206.693 156.793	1.00	93.55 H
HETATM	5708	H4	NAG	B	1015	174.722 205.998 158.682	1.00	93.55 H
HETATM	5709	H5	NAG	B	1015	174.430 204.893 156.077	1.00	93.55 H
HETATM	5710	H61	NAG	B	1015	176.613 204.914 157.606	1.00	93.55 H
HETATM	5711	H62	NAG	B	1015	176.433 204.129 156.234	1.00	93.55 H
HETATM	5712	H81	NAG	B	1015	168.255 206.003 158.172	1.00	93.55 H
HETATM	5713	H82	NAG	B	1015	168.499 207.578 158.242	1.00	93.55 H
HETATM	5714	H83	NAG	B	1015	168.127 206.768 159.562	1.00	93.55 H
HETATM	5715	HN2	NAG	B	1015	170.211 205.325 157.433	1.00	93.55 H
HETATM	5716	HO3	NAG	B	1015	172.895 208.377 158.025	1.00	93.55 H

HETATM 5717 HO4 NAG B1015 175.088 207.107 156.261 1.00 93.55 H
HETATM 5718 HO6 NAG B1015 176.466 203.157 158.638 1.00 93.55 H
HETATM 5719 C1 PFE B1101 138.292 145.575 221.765 1.00100.14 C
HETATM 5720 C13 PFE B1101 143.279 145.516 223.301 1.00100.14 C
HETATM 5721 C18 PFE B1101 138.328 149.229 221.560 1.00100.14 C
HETATM 5722 C2 PFE B1101 138.543 146.912 222.454 1.00100.14 C
HETATM 5723 C21 PFE B1101 138.361 151.320 220.177 1.00100.14 C
HETATM 5724 C22 PFE B1101 139.277 152.026 219.410 1.00100.14 C
HETATM 5725 C23 PFE B1101 139.082 153.369 219.150 1.00100.14 C
HETATM 5726 C24 PFE B1101 137.970 154.026 219.654 1.00100.14 C
HETATM 5727 C25 PFE B1101 137.046 153.317 220.409 1.00100.14 C
HETATM 5728 C26 PFE B1101 137.240 151.974 220.668 1.00100.14 C
HETATM 5729 C28 PFE B1101 138.386 156.178 218.491 1.00100.14 C
HETATM 5730 C3 PFE B1101 139.743 146.851 223.377 1.00100.14 C
HETATM 5731 C30 PFE B1101 138.008 157.610 218.555 1.00100.14 C
HETATM 5732 C31 PFE B1101 138.521 158.562 217.735 1.00100.14 C
HETATM 5733 C33 PFE B1101 136.938 159.326 219.335 1.00100.14 C
HETATM 5734 C4 PFE B1101 140.915 146.235 222.955 1.00100.14 C
HETATM 5735 C5 PFE B1101 142.025 146.165 223.787 1.00100.14 C
HETATM 5736 C6 PFE B1101 141.974 146.709 225.064 1.00100.14 C
HETATM 5737 C7 PFE B1101 140.807 147.326 225.496 1.00100.14 C
HETATM 5738 C8 PFE B1101 139.703 147.394 224.655 1.00100.14 C
HETATM 5739 C9 PFE B1101 140.740 147.922 226.865 1.00100.14 C
HETATM 5740 F10 PFE B1101 141.446 147.235 227.755 1.00100.14 F
HETATM 5741 F11 PFE B1101 141.206 149.164 226.906 1.00100.14 F
HETATM 5742 F12 PFE B1101 139.501 147.977 227.340 1.00100.14 F
HETATM 5743 F14 PFE B1101 143.809 144.690 224.198 1.00100.14 F
HETATM 5744 F15 PFE B1101 143.091 144.794 222.202 1.00100.14 F
HETATM 5745 F16 PFE B1101 144.228 146.396 223.002 1.00100.14 F
HETATM 5746 N17 PFE B1101 138.701 147.952 221.435 1.00100.14 N
HETATM 5747 N20 PFE B1101 138.594 149.953 220.454 1.00100.14 N
HETATM 5748 N27 PFE B1101 137.787 155.408 219.422 1.00100.14 N
HETATM 5749 N34 PFE B1101 137.088 158.050 219.487 1.00100.14 N
HETATM 5750 O29 PFE B1101 139.181 155.762 217.653 1.00100.14 O

```
HETATM 5751  S19 PFE B1101     137.627 149.843 222.954  1.00100.14          S
HETATM 5752  S32 PFE B1101     137.853 160.079 218.107  1.00100.14          S
HETATM 5753  HC2 PFE B1101     137.661 147.149 223.046  1.00100.14          H
HETATM 5754  HC4 PFE B1101     140.970 145.800 221.958  1.00100.14          H
HETATM 5755  HC6 PFE B1101     142.838 146.652 225.723  1.00100.14          H
HETATM 5756  HC8 PFE B1101     138.788 147.876 224.997  1.00100.14          H
HETATM 5757 HC1A PFE B1101     138.209 144.775 222.498  1.00100.14          H
HETATM 5758 HC1B PFE B1101     137.359 145.587 221.204  1.00100.14          H
HETATM 5759 HC1C PFE B1101     139.074 145.293 221.062  1.00100.14          H
HETATM 5760 HC22 PFE B1101     140.151 151.527 218.996  1.00100.14          H
HETATM 5761 HC23 PFE B1101     139.822 153.878 218.535  1.00100.14          H
HETATM 5762 HC25 PFE B1101     136.158 153.804 220.806  1.00100.14          H
HETATM 5763 HC26 PFE B1101     136.506 151.432 221.260  1.00100.14          H
HETATM 5764 HC31 PFE B1101     139.256 158.420 216.946  1.00100.14          H
HETATM 5765 HC33 PFE B1101     136.265 159.901 219.967  1.00100.14          H
HETATM 5766 HN17 PFE B1101     139.141 147.622 220.583  1.00100.14          H
HETATM 5767 HN20 PFE B1101     139.040 149.506 219.660  1.00100.14          H
HETATM 5768 HN27 PFE B1101     137.118 155.843 220.047  1.00100.14          H

ATOM      1  N   THR C  86     136.177 181.279 163.957  1.00 68.89           N
ATOM      2  CA  THR C  86     135.924 179.852 164.110  1.00 68.89           C
ATOM      3  C   THR C  86     134.656 179.440 163.375  1.00 68.89           C
ATOM      4  O   THR C  86     133.591 179.317 163.980  1.00 68.89           O
ATOM      5  CB  THR C  86     135.793 179.453 165.589  1.00 68.89           C
ATOM      6  OG1 THR C  86     134.668 180.125 166.168  1.00 68.89           O
ATOM      7  CG2 THR C  86     137.048 179.831 166.354  1.00 68.89           C
ATOM      8  N   THR C  87     134.775 179.228 162.066  1.00 71.95           N
ATOM      9  CA  THR C  87     133.655 178.788 161.246  1.00 71.95           C
ATOM     10  C   THR C  87     133.760 177.338 160.807  1.00 71.95           C
ATOM     11  O   THR C  87     132.733 176.677 160.656  1.00 71.95           O
ATOM     12  CB  THR C  87     133.521 179.670 160.000  1.00 71.95           C
ATOM     13  OG1 THR C  87     133.314 181.031 160.397  1.00 71.95           O
ATOM     14  CG2 THR C  87     132.346 179.213 159.154  1.00 71.95           C
ATOM     15  N   LYS C  88     134.974 176.833 160.597  1.00 66.47           N
```

ATOM 16 CA LYS C 88 135.190 175.424 160.312 1.00 66.47 C
ATOM 17 C LYS C 88 136.002 174.729 161.392 1.00 66.47 C
ATOM 18 O LYS C 88 136.196 173.511 161.314 1.00 66.47 O
ATOM 19 CB LYS C 88 135.879 175.249 158.955 1.00 66.47 C
ATOM 20 CG LYS C 88 137.028 176.206 158.711 1.00 66.47 C
ATOM 21 CD LYS C 88 137.631 175.991 157.334 1.00 66.47 C
ATOM 22 CE LYS C 88 138.074 174.550 157.149 1.00 66.47 C
ATOM 23 NZ LYS C 88 138.758 174.342 155.845 1.00 66.47 N
ATOM 24 N TYR C 89 136.482 175.464 162.395 1.00 60.35 N
ATOM 25 CA TYR C 89 137.189 174.903 163.543 1.00 60.35 C
ATOM 26 C TYR C 89 136.416 175.263 164.806 1.00 60.35 C
ATOM 27 O TYR C 89 136.839 176.131 165.582 1.00 60.35 O
ATOM 28 CB TYR C 89 138.624 175.416 163.626 1.00 60.35 C
ATOM 29 CG TYR C 89 139.470 175.086 162.422 1.00 60.35 C
ATOM 30 CD1 TYR C 89 139.776 173.772 162.104 1.00 60.35 C
ATOM 31 CD2 TYR C 89 139.971 176.090 161.610 1.00 60.35 C
ATOM 32 CE1 TYR C 89 140.553 173.468 161.007 1.00 60.35 C
ATOM 33 CE2 TYR C 89 140.749 175.796 160.511 1.00 60.35 C
ATOM 34 CZ TYR C 89 141.037 174.484 160.214 1.00 60.35 C
ATOM 35 OH TYR C 89 141.813 174.189 159.119 1.00 60.35 O
ATOM 36 N PRO C 90 135.277 174.617 165.041 1.00 51.95 N
ATOM 37 CA PRO C 90 134.479 174.923 166.230 1.00 51.95 C
ATOM 38 C PRO C 90 134.893 174.080 167.424 1.00 51.95 C
ATOM 39 O PRO C 90 135.206 172.895 167.306 1.00 51.95 O
ATOM 40 CB PRO C 90 133.059 174.571 165.772 1.00 51.95 C
ATOM 41 CG PRO C 90 133.265 173.441 164.825 1.00 51.95 C
ATOM 42 CD PRO C 90 134.612 173.635 164.170 1.00 51.95 C
ATOM 43 N TYR C 91 134.899 174.717 168.593 1.00 47.85 N
ATOM 44 CA TYR C 91 135.255 174.027 169.825 1.00 47.85 C
ATOM 45 C TYR C 91 134.502 172.711 169.935 1.00 47.85 C
ATOM 46 O TYR C 91 133.270 172.683 169.921 1.00 47.85 O
ATOM 47 CB TYR C 91 134.945 174.913 171.031 1.00 47.85 C
ATOM 48 CG TYR C 91 135.681 176.231 171.030 1.00 47.85 C
ATOM 49 CD1 TYR C 91 136.959 176.333 171.552 1.00 47.85 C

ATOM 50 CD2 TYR C 91 135.094 177.373 170.512 1.00 47.85 C
ATOM 51 CE1 TYR C 91 137.634 177.534 171.554 1.00 47.85 C
ATOM 52 CE2 TYR C 91 135.762 178.578 170.511 1.00 47.85 C
ATOM 53 CZ TYR C 91 137.033 178.652 171.033 1.00 47.85 C
ATOM 54 OH TYR C 91 137.704 179.851 171.035 1.00 47.85 O
ATOM 55 N ARG C 92 135.250 171.619 170.047 1.00 47.17 N
ATOM 56 CA ARG C 92 134.666 170.289 170.079 1.00 47.17 C
ATOM 57 C ARG C 92 135.428 169.440 171.082 1.00 47.17 C
ATOM 58 O ARG C 92 136.578 169.725 171.414 1.00 47.17 O
ATOM 59 CB ARG C 92 134.696 169.644 168.693 1.00 47.17 C
ATOM 60 CG ARG C 92 136.086 169.551 168.104 1.00 47.17 C
ATOM 61 CD ARG C 92 136.049 169.610 166.592 1.00 47.17 C
ATOM 62 NE ARG C 92 137.316 169.192 166.006 1.00 47.17 N
ATOM 63 CZ ARG C 92 138.320 170.016 165.737 1.00 47.17 C
ATOM 64 NH1 ARG C 92 138.205 171.308 166.000 1.00 47.17 N
ATOM 65 NH2 ARG C 92 139.439 169.549 165.205 1.00 47.17 N
ATOM 66 N VAL C 93 134.774 168.384 171.557 1.00 44.30 N
ATOM 67 CA VAL C 93 135.336 167.490 172.570 1.00 44.30 C
ATOM 68 C VAL C 93 135.120 166.064 172.077 1.00 44.30 C
ATOM 69 O VAL C 93 134.072 165.460 172.322 1.00 44.30 O
ATOM 70 CB VAL C 93 134.698 167.688 173.945 1.00 44.30 C
ATOM 71 CG1 VAL C 93 135.042 166.526 174.849 1.00 44.30 C
ATOM 72 CG2 VAL C 93 135.152 168.991 174.552 1.00 44.30 C
ATOM 73 N CYS C 94 136.120 165.501 171.403 1.00 50.21 N
ATOM 74 CA CYS C 94 136.012 164.137 170.892 1.00 50.21 C
ATOM 75 C CYS C 94 137.236 163.315 171.275 1.00 50.21 C
ATOM 76 O CYS C 94 138.258 163.331 170.584 1.00 50.21 O
ATOM 77 CB CYS C 94 135.782 164.130 169.389 1.00 50.21 C
ATOM 78 SG CYS C 94 137.005 164.917 168.349 1.00 50.21 S
ATOM 79 N SER C 95 137.105 162.595 172.386 1.00 49.61 N
ATOM 80 CA SER C 95 137.990 161.496 172.747 1.00 49.61 C
ATOM 81 C SER C 95 137.239 160.248 173.175 1.00 49.61 C
ATOM 82 O SER C 95 137.866 159.193 173.313 1.00 49.61 O
ATOM 83 CB SER C 95 138.940 161.914 173.873 1.00 49.61 C

```
ATOM   84  OG  SER C  95    138.218 162.287 175.032  1.00 49.61           O
ATOM   85  N   MET C  96    135.927 160.321 173.380  1.00 50.74           N
ATOM   86  CA  MET C  96    135.121 159.187 173.804  1.00 50.74           C
ATOM   87  C   MET C  96    134.531 158.490 172.586  1.00 50.74           C
ATOM   88  O   MET C  96    133.925 159.138 171.730  1.00 50.74           O
ATOM   89  CB  MET C  96    134.002 159.657 174.732  1.00 50.74           C
ATOM   90  CG  MET C  96    133.350 160.950 174.275  1.00 50.74           C
ATOM   91  SD  MET C  96    132.268 161.696 175.505  1.00 50.74           S
ATOM   92  CE  MET C  96    133.346 161.695 176.928  1.00 50.74           C
ATOM   93  N   ALA C  97    134.706 157.169 172.511  1.00 45.76           N
ATOM   94  CA  ALA C  97    134.206 156.415 171.363  1.00 45.76           C
ATOM   95  C   ALA C  97    133.934 154.979 171.808  1.00 45.76           C
ATOM   96  O   ALA C  97    134.864 154.178 171.913  1.00 45.76           O
ATOM   97  CB  ALA C  97    135.190 156.461 170.209  1.00 45.76           C
ATOM   98  N   GLN C  98    132.663 154.672 172.050  1.00 46.20           N
ATOM   99  CA  GLN C  98    132.225 153.303 172.287  1.00 46.20           C
ATOM   100 C   GLN C  98    132.101 152.594 170.947  1.00 46.20           C
ATOM   101 O   GLN C  98    132.616 153.082 169.938  1.00 46.20           O
ATOM   102 CB  GLN C  98    130.901 153.270 173.047  1.00 46.20           C
ATOM   103 CG  GLN C  98    130.722 154.409 174.022  1.00 46.20           C
ATOM   104 CD  GLN C  98    131.641 154.296 175.214  1.00 46.20           C
ATOM   105 OE1 GLN C  98    131.849 153.211 175.750  1.00 46.20           O
ATOM   106 NE2 GLN C  98    132.197 155.421 175.639  1.00 46.20           N
ATOM   107 N   GLY C  99    131.424 151.453 170.916  1.00 43.92           N
ATOM   108 CA  GLY C  99    131.345 150.691 169.686  1.00 43.92           C
ATOM   109 C   GLY C  99    130.374 151.299 168.695  1.00 43.92           C
ATOM   110 O   GLY C  99    130.387 152.513 168.478  1.00 43.92           O
ATOM   111 N   THR C 100    129.531 150.474 168.084  1.00 43.38           N
ATOM   112 CA  THR C 100    128.606 150.806 167.008  1.00 43.38           C
ATOM   113 C   THR C 100    129.292 150.815 165.644  1.00 43.38           C
ATOM   114 O   THR C 100    128.611 151.006 164.637  1.00 43.38           O
ATOM   115 CB  THR C 100    127.895 152.159 167.209  1.00 43.38           C
ATOM   116 OG1 THR C 100    128.849 153.219 167.108  1.00 43.38           O
ATOM   117 CG2 THR C 100    127.239 152.216 168.569  1.00 43.38           C
```

ATOM 118 N ASP C 101 130.610 150.633 165.570 1.00 43.41 N
ATOM 119 CA ASP C 101 131.278 150.303 164.317 1.00 43.41 C
ATOM 120 C ASP C 101 132.760 150.048 164.558 1.00 43.41 C
ATOM 121 O ASP C 101 133.364 150.673 165.432 1.00 43.41 O
ATOM 122 CB ASP C 101 131.069 151.408 163.286 1.00 43.41 C
ATOM 123 CG ASP C 101 131.395 152.765 163.829 1.00 43.41 C
ATOM 124 OD1 ASP C 101 131.908 152.833 164.962 1.00 43.41 O
ATOM 125 OD2 ASP C 101 131.130 153.765 163.133 1.00 43.41 O
ATOM 126 N LEU C 102 133.355 149.147 163.783 1.00 42.15 N
ATOM 127 CA LEU C 102 134.723 148.706 164.000 1.00 42.15 C
ATOM 128 C LEU C 102 135.445 148.625 162.662 1.00 42.15 C
ATOM 129 O LEU C 102 134.815 148.572 161.606 1.00 42.15 O
ATOM 130 CB LEU C 102 134.746 147.346 164.706 1.00 42.15 C
ATOM 131 CG LEU C 102 133.683 147.167 165.793 1.00 42.15 C
ATOM 132 CD1 LEU C 102 133.560 145.716 166.203 1.00 42.15 C
ATOM 133 CD2 LEU C 102 133.997 148.023 166.997 1.00 42.15 C
ATOM 134 N ILE C 103 136.779 148.622 162.705 1.00 44.75 N
ATOM 135 CA ILE C 103 137.582 148.526 161.489 1.00 44.75 C
ATOM 136 C ILE C 103 138.916 147.865 161.806 1.00 44.75 C
ATOM 137 O ILE C 103 139.500 148.082 162.869 1.00 44.75 O
ATOM 138 CB ILE C 103 137.803 149.908 160.835 1.00 44.75 C
ATOM 139 CG1 ILE C 103 138.714 150.768 161.702 1.00 44.75 C
ATOM 140 CG2 ILE C 103 136.488 150.615 160.598 1.00 44.75 C
ATOM 141 CD1 ILE C 103 139.009 152.119 161.102 1.00 44.75 C
ATOM 142 N ARG C 104 139.395 147.049 160.865 1.00 52.23 N
ATOM 143 CA ARG C 104 140.663 146.332 160.908 1.00 52.23 C
ATOM 144 C ARG C 104 141.689 147.004 159.995 1.00 52.23 C
ATOM 145 O ARG C 104 141.471 148.110 159.493 1.00 52.23 O
ATOM 146 CB ARG C 104 140.453 144.875 160.511 1.00 52.23 C
ATOM 147 CG ARG C 104 139.728 144.044 161.529 1.00 52.23 C
ATOM 148 CD ARG C 104 139.790 142.595 161.118 1.00 52.23 C
ATOM 149 NE ARG C 104 139.356 142.420 159.738 1.00 52.23 N
ATOM 150 CZ ARG C 104 139.801 141.466 158.933 1.00 52.23 C
ATOM 151 NH1 ARG C 104 140.704 140.598 159.367 1.00 52.23 N

ATOM 152 NH2 ARG C 104 139.350 141.380 157.692 1.00 52.23 N
ATOM 153 N PHE C 105 142.825 146.325 159.780 1.00 59.53 N
ATOM 154 CA PHE C 105 143.871 146.828 158.892 1.00 59.53 C
ATOM 155 C PHE C 105 144.368 145.798 157.879 1.00 59.53 C
ATOM 156 O PHE C 105 145.483 145.943 157.372 1.00 59.53 O
ATOM 157 CB PHE C 105 145.064 147.361 159.687 1.00 59.53 C
ATOM 158 CG PHE C 105 144.854 148.729 160.262 1.00 59.53 C
ATOM 159 CD1 PHE C 105 145.037 149.855 159.476 1.00 59.53 C
ATOM 160 CD2 PHE C 105 144.494 148.893 161.585 1.00 59.53 C
ATOM 161 CE1 PHE C 105 144.853 151.114 159.997 1.00 59.53 C
ATOM 162 CE2 PHE C 105 144.309 150.151 162.113 1.00 59.53 C
ATOM 163 CZ PHE C 105 144.489 151.264 161.317 1.00 59.53 C
ATOM 164 N GLU C 106 143.586 144.765 157.567 1.00 71.98 N
ATOM 165 CA GLU C 106 143.782 143.980 156.343 1.00 71.98 C
ATOM 166 C GLU C 106 145.215 143.442 156.235 1.00 71.98 C
ATOM 167 O GLU C 106 146.031 143.907 155.439 1.00 71.98 O
ATOM 168 CB GLU C 106 143.410 144.797 155.102 1.00 71.98 C
ATOM 169 CG GLU C 106 143.617 144.044 153.797 1.00 71.98 C
ATOM 170 CD GLU C 106 143.093 142.616 153.840 1.00 71.98 C
ATOM 171 OE1 GLU C 106 142.367 142.264 154.792 1.00 71.98 O
ATOM 172 OE2 GLU C 106 143.411 141.840 152.916 1.00 71.98 O
ATOM 173 N ARG C 107 145.497 142.452 157.079 1.00 79.28 N
ATOM 174 CA ARG C 107 146.834 141.897 157.274 1.00 79.28 C
ATOM 175 C ARG C 107 147.724 141.854 156.033 1.00 79.28 C
ATOM 176 O ARG C 107 148.843 142.375 156.068 1.00 79.28 O
ATOM 177 CB ARG C 107 146.713 140.480 157.835 1.00 79.28 C
ATOM 178 CG ARG C 107 148.043 139.798 158.090 1.00 79.28 C
ATOM 179 CD ARG C 107 147.849 138.339 158.467 1.00 79.28 C
ATOM 180 NE ARG C 107 147.111 138.183 159.716 1.00 79.28 N
ATOM 181 CZ ARG C 107 145.793 138.021 159.790 1.00 79.28 C
ATOM 182 NH1 ARG C 107 145.204 137.887 160.971 1.00 79.28 N
ATOM 183 NH2 ARG C 107 145.064 137.994 158.684 1.00 79.28 N
ATOM 184 N ASN C 108 147.269 141.244 154.938 1.00 84.00 N
ATOM 185 CA ASN C 108 148.158 140.962 153.816 1.00 84.00 C

```
ATOM   186  C   ASN C 108    147.525 141.392 152.499  1.00 84.00          C
ATOM   187  O   ASN C 108    146.318 141.631 152.408  1.00 84.00          O
ATOM   188  CB  ASN C 108    148.528 139.474 153.756  1.00 84.00          C
ATOM   189  CG  ASN C 108    147.427 138.624 153.151  1.00 84.00          C
ATOM   190  OD1 ASN C 108    147.227 138.619 151.937  1.00 84.00          O
ATOM   191  ND2 ASN C 108    146.709 137.896 153.997  1.00 84.00          N
ATOM   192  N   ILE C 109    148.363 141.470 151.467  1.00 86.09          N
ATOM   193  CA  ILE C 109    147.936 141.864 150.127  1.00 86.09          C
ATOM   194  C   ILE C 109    148.932 141.300 149.122  1.00 86.09          C
ATOM   195  O   ILE C 109    150.129 141.199 149.404  1.00 86.09          O
ATOM   196  CB  ILE C 109    147.824 143.401 149.999  1.00 86.09          C
ATOM   197  CG1 ILE C 109    146.623 143.928 150.783  1.00 86.09          C
ATOM   198  CG2 ILE C 109    147.729 143.808 148.538  1.00 86.09          C
ATOM   199  CD1 ILE C 109    146.592 145.432 150.886  1.00 86.09          C
ATOM   200  N   VAL C 110    148.429 140.933 147.943  1.00 93.76          N
ATOM   201  CA  VAL C 110    149.252 140.516 146.811  1.00 93.76          C
ATOM   202  C   VAL C 110    148.769 141.266 145.577  1.00 93.76          C
ATOM   203  O   VAL C 110    147.576 141.235 145.258  1.00 93.76          O
ATOM   204  CB  VAL C 110    149.189 138.994 146.589  1.00 93.76          C
ATOM   205  CG1 VAL C 110    149.759 138.260 147.791  1.00 93.76          C
ATOM   206  CG2 VAL C 110    147.758 138.555 146.321  1.00 93.76          C
ATOM   207  N   CYS C 111    149.692 141.938 144.881  1.00 98.50          N
ATOM   208  CA  CYS C 111    149.271 142.857 143.823  1.00 98.50          C
ATOM   209  C   CYS C 111    148.958 142.123 142.522  1.00 98.50          C
ATOM   210  O   CYS C 111    147.794 142.014 142.122  1.00 98.50          O
ATOM   211  CB  CYS C 111    150.360 143.911 143.586  1.00 98.50          C
ATOM   212  SG  CYS C 111    150.329 145.350 144.683  1.00 98.50          S
ATOM   213  N   THR C 112    149.988 141.603 141.853  1.00105.15          N
ATOM   214  CA  THR C 112    149.796 140.862 140.611  1.00105.15          C
ATOM   215  C   THR C 112    151.136 140.478 139.997  1.00105.15          C
ATOM   216  O   THR C 112    152.191 140.859 140.514  1.00105.15          O
ATOM   217  CB  THR C 112    148.968 141.673 139.614  1.00105.15          C
ATOM   218  OG1 THR C 112    148.572 140.830 138.527  1.00105.15          O
ATOM   219  CG2 THR C 112    149.782 142.832 139.077  1.00105.15          C
```

ATOM 220 N SER C 113 151.108 139.722 138.897 1.00107.97 N
ATOM 221 CA SER C 113 152.291 139.496 138.058 1.00107.97 C
ATOM 222 C SER C 113 151.848 139.657 136.604 1.00107.97 C
ATOM 223 O SER C 113 151.499 138.678 135.939 1.00107.97 O
ATOM 224 CB SER C 113 152.904 138.126 138.316 1.00107.97 C
ATOM 225 OG SER C 113 153.684 137.701 137.212 1.00107.97 O
ATOM 226 N MET C 114 151.863 140.896 136.117 1.00105.04 N
ATOM 227 CA MET C 114 151.325 141.207 134.791 1.00105.04 C
ATOM 228 C MET C 114 152.402 141.242 133.708 1.00105.04 C
ATOM 229 O MET C 114 152.478 142.196 132.937 1.00105.04 O
ATOM 230 CB MET C 114 150.578 142.535 134.841 1.00105.04 C
ATOM 231 CG MET C 114 149.300 142.506 135.657 1.00105.04 C
ATOM 232 SD MET C 114 148.438 144.087 135.655 1.00105.04 S
ATOM 233 CE MET C 114 149.467 145.034 136.772 1.00105.04 C
ATOM 234 N LYS C 115 153.249 140.218 133.627 1.00111.43 N
ATOM 235 CA LYS C 115 154.049 140.078 132.414 1.00111.43 C
ATOM 236 C LYS C 115 154.256 138.617 132.026 1.00111.43 C
ATOM 237 O LYS C 115 155.359 138.245 131.608 1.00111.43 O
ATOM 238 CB LYS C 115 155.399 140.779 132.602 1.00111.43 C
ATOM 239 CG LYS C 115 156.238 140.247 133.761 1.00111.43 C
ATOM 240 CD LYS C 115 157.210 139.164 133.324 1.00111.43 C
ATOM 241 CE LYS C 115 158.086 138.707 134.478 1.00111.43 C
ATOM 242 NZ LYS C 115 159.020 137.621 134.069 1.00111.43 N
ATOM 243 N PRO C 116 153.229 137.763 132.103 1.00118.44 N
ATOM 244 CA PRO C 116 153.455 136.344 131.796 1.00118.44 C
ATOM 245 C PRO C 116 153.407 135.993 130.316 1.00118.44 C
ATOM 246 O PRO C 116 154.265 135.248 129.827 1.00118.44 O
ATOM 247 CB PRO C 116 152.317 135.640 132.553 1.00118.44 C
ATOM 248 CG PRO C 116 151.633 136.722 133.375 1.00118.44 C
ATOM 249 CD PRO C 116 151.869 137.979 132.614 1.00118.44 C
ATOM 250 N ILE C 117 152.426 136.523 129.593 1.00120.01 N
ATOM 251 CA ILE C 117 152.026 135.947 128.312 1.00120.01 C
ATOM 252 C ILE C 117 151.096 136.914 127.597 1.00120.01 C
ATOM 253 O ILE C 117 150.564 137.846 128.210 1.00120.01 O

ATOM 254 CB ILE C 117 151.360 134.563 128.544 1.00120.01 C
ATOM 255 CG1 ILE C 117 150.837 133.974 127.232 1.00120.01 C
ATOM 256 CG2 ILE C 117 150.264 134.680 129.581 1.00120.01 C
ATOM 257 CD1 ILE C 117 150.254 132.588 127.377 1.00120.01 C
ATOM 258 N ASN C 118 150.898 136.688 126.295 1.00118.26 N
ATOM 259 CA ASN C 118 149.870 137.361 125.499 1.00118.26 C
ATOM 260 C ASN C 118 150.146 138.863 125.373 1.00118.26 C
ATOM 261 O ASN C 118 149.398 139.715 125.857 1.00118.26 O
ATOM 262 CB ASN C 118 148.479 137.111 126.092 1.00118.26 C
ATOM 263 CG ASN C 118 147.837 135.843 125.563 1.00118.26 C
ATOM 264 OD1 ASN C 118 147.060 135.879 124.610 1.00118.26 O
ATOM 265 ND2 ASN C 118 148.151 134.715 126.187 1.00118.26 N
ATOM 266 N GLU C 119 151.258 139.164 124.700 1.00108.93 N
ATOM 267 CA GLU C 119 151.600 140.544 124.352 1.00108.93 C
ATOM 268 C GLU C 119 150.700 141.012 123.207 1.00108.93 C
ATOM 269 O GLU C 119 151.134 141.286 122.087 1.00108.93 O
ATOM 270 CB GLU C 119 153.074 140.654 123.988 1.00108.93 C
ATOM 271 CG GLU C 119 153.718 141.976 124.381 1.00108.93 C
ATOM 272 CD GLU C 119 153.280 143.133 123.504 1.00108.93 C
ATOM 273 OE1 GLU C 119 153.013 142.909 122.306 1.00108.93 O
ATOM 274 OE2 GLU C 119 153.208 144.270 124.012 1.00108.93 O
ATOM 275 N ASP C 120 149.400 141.083 123.512 1.00107.36 N
ATOM 276 CA ASP C 120 148.402 141.624 122.597 1.00107.36 C
ATOM 277 C ASP C 120 147.368 142.449 123.352 1.00107.36 C
ATOM 278 O ASP C 120 146.194 142.487 122.968 1.00107.36 O
ATOM 279 CB ASP C 120 147.714 140.510 121.807 1.00107.36 C
ATOM 280 CG ASP C 120 147.204 139.397 122.695 1.00107.36 C
ATOM 281 OD1 ASP C 120 148.037 138.668 123.272 1.00107.36 O
ATOM 282 OD2 ASP C 120 145.971 139.251 122.816 1.00107.36 O
ATOM 283 N LEU C 121 147.791 143.115 124.421 1.00 94.83 N
ATOM 284 CA LEU C 121 146.866 143.762 125.338 1.00 94.83 C
ATOM 285 C LEU C 121 146.010 144.809 124.631 1.00 94.83 C
ATOM 286 O LEU C 121 146.407 145.398 123.624 1.00 94.83 O
ATOM 287 CB LEU C 121 147.644 144.391 126.493 1.00 94.83 C

ATOM 288 CG LEU C 121 148.531 145.588 126.166 1.00 94.83 C
ATOM 289 CD1 LEU C 121 148.974 146.273 127.439 1.00 94.83 C
ATOM 290 CD2 LEU C 121 149.734 145.145 125.365 1.00 94.83 C
ATOM 291 N ASP C 122 144.819 145.031 125.183 1.00 95.17 N
ATOM 292 CA ASP C 122 143.797 145.929 124.655 1.00 95.17 C
ATOM 293 C ASP C 122 143.495 147.015 125.687 1.00 95.17 C
ATOM 294 O ASP C 122 144.044 147.024 126.791 1.00 95.17 O
ATOM 295 CB ASP C 122 142.535 145.140 124.289 1.00 95.17 C
ATOM 296 CG ASP C 122 141.532 145.963 123.507 1.00 95.17 C
ATOM 297 OD1 ASP C 122 141.425 147.178 123.767 1.00 95.17 O
ATOM 298 OD2 ASP C 122 140.843 145.393 122.635 1.00 95.17 O
ATOM 299 N GLU C 123 142.603 147.935 125.322 1.00 95.33 N
ATOM 300 CA GLU C 123 142.239 149.068 126.164 1.00 95.33 C
ATOM 301 C GLU C 123 140.720 149.199 126.222 1.00 95.33 C
ATOM 302 O GLU C 123 139.982 148.405 125.631 1.00 95.33 O
ATOM 303 CB GLU C 123 142.883 150.359 125.647 1.00 95.33 C
ATOM 304 CG GLU C 123 142.652 150.607 124.170 1.00 95.33 C
ATOM 305 CD GLU C 123 143.372 151.841 123.669 1.00 95.33 C
ATOM 306 OE1 GLU C 123 144.011 152.532 124.489 1.00 95.33 O
ATOM 307 OE2 GLU C 123 143.303 152.120 122.454 1.00 95.33 O
ATOM 308 N GLY C 124 140.251 150.209 126.947 1.00 89.93 N
ATOM 309 CA GLY C 124 138.827 150.444 127.064 1.00 89.93 C
ATOM 310 C GLY C 124 138.520 151.390 128.208 1.00 89.93 C
ATOM 311 O GLY C 124 139.420 151.965 128.825 1.00 89.93 O
ATOM 312 N ILE C 125 137.221 151.539 128.474 1.00 87.86 N
ATOM 313 CA ILE C 125 136.700 152.381 129.545 1.00 87.86 C
ATOM 314 C ILE C 125 135.857 151.517 130.468 1.00 87.86 C
ATOM 315 O ILE C 125 135.087 150.670 130.003 1.00 87.86 O
ATOM 316 CB ILE C 125 135.861 153.549 128.994 1.00 87.86 C
ATOM 317 CG1 ILE C 125 134.833 153.024 127.994 1.00 87.86 C
ATOM 318 CG2 ILE C 125 136.750 154.585 128.347 1.00 87.86 C
ATOM 319 CD1 ILE C 125 134.031 154.108 127.318 1.00 87.86 C
ATOM 320 N MET C 126 135.990 151.737 131.774 1.00 85.46 N
ATOM 321 CA MET C 126 135.334 150.889 132.758 1.00 85.46 C

```
ATOM   322  C   MET C 126    134.837 151.724 133.927  1.00 85.46           C
ATOM   323  O   MET C 126    135.380 152.791 134.223  1.00 85.46           O
ATOM   324  CB  MET C 126    136.283 149.801 133.271  1.00 85.46           C
ATOM   325  CG  MET C 126    137.408 150.336 134.133  1.00 85.46           C
ATOM   326  SD  MET C 126    138.329 149.038 134.971  1.00 85.46           S
ATOM   327  CE  MET C 126    139.388 150.013 136.033  1.00 85.46           C
ATOM   328  N   VAL C 127    133.793 151.225 134.585  1.00 84.75           N
ATOM   329  CA  VAL C 127    133.288 151.779 135.838  1.00 84.75           C
ATOM   330  C   VAL C 127    133.092 150.621 136.805  1.00 84.75           C
ATOM   331  O   VAL C 127    132.316 149.700 136.527  1.00 84.75           O
ATOM   332  CB  VAL C 127    131.977 152.557 135.650  1.00 84.75           C
ATOM   333  CG1 VAL C 127    132.173 153.681 134.655  1.00 84.75           C
ATOM   334  CG2 VAL C 127    130.868 151.633 135.195  1.00 84.75           C
ATOM   335  N   VAL C 128    133.795 150.663 137.931  1.00 89.98           N
ATOM   336  CA  VAL C 128    133.804 149.573 138.896  1.00 89.98           C
ATOM   337  C   VAL C 128    133.107 150.020 140.169  1.00 89.98           C
ATOM   338  O   VAL C 128    133.119 151.204 140.522  1.00 89.98           O
ATOM   339  CB  VAL C 128    135.243 149.115 139.207  1.00 89.98           C
ATOM   340  CG1 VAL C 128    136.016 150.246 139.846  1.00 89.98           C
ATOM   341  CG2 VAL C 128    135.226 147.916 140.127  1.00 89.98           C
ATOM   342  N   TYR C 129    132.499 149.064 140.867  1.00 91.70           N
ATOM   343  CA  TYR C 129    132.021 149.323 142.216  1.00 91.70           C
ATOM   344  C   TYR C 129    131.897 148.013 142.981  1.00 91.70           C
ATOM   345  O   TYR C 129    131.975 146.922 142.414  1.00 91.70           O
ATOM   346  CB  TYR C 129    130.701 150.095 142.226  1.00 91.70           C
ATOM   347  CG  TYR C 129    129.658 149.673 141.225  1.00 91.70           C
ATOM   348  CD1 TYR C 129    128.945 148.501 141.388  1.00 91.70           C
ATOM   349  CD2 TYR C 129    129.357 150.476 140.139  1.00 91.70           C
ATOM   350  CE1 TYR C 129    127.979 148.132 140.486  1.00 91.70           C
ATOM   351  CE2 TYR C 129    128.395 150.116 139.235  1.00 91.70           C
ATOM   352  CZ  TYR C 129    127.709 148.943 139.411  1.00 91.70           C
ATOM   353  OH  TYR C 129    126.745 148.579 138.503  1.00 91.70           O
ATOM   354  N   LYS C 130    131.703 148.147 144.291  1.00 95.82           N
ATOM   355  CA  LYS C 130    131.829 147.072 145.259  1.00 95.82           C
```

ATOM 356 C LYS C 130 130.477 146.744 145.888 1.00 95.82 C
ATOM 357 O LYS C 130 129.430 147.254 145.475 1.00 95.82 O
ATOM 358 CB LYS C 130 132.862 147.462 146.316 1.00 95.82 C
ATOM 359 CG LYS C 130 132.463 148.677 147.126 1.00 95.82 C
ATOM 360 CD LYS C 130 133.562 149.098 148.080 1.00 95.82 C
ATOM 361 CE LYS C 130 133.126 150.285 148.921 1.00 95.82 C
ATOM 362 NZ LYS C 130 132.924 151.510 148.103 1.00 95.82 N
ATOM 363 N ARG C 131 130.506 145.879 146.898 1.00 99.74 N
ATOM 364 CA ARG C 131 129.309 145.390 147.568 1.00 99.74 C
ATOM 365 C ARG C 131 129.173 146.050 148.932 1.00 99.74 C
ATOM 366 O ARG C 131 130.136 146.093 149.704 1.00 99.74 O
ATOM 367 CB ARG C 131 129.358 143.868 147.719 1.00 99.74 C
ATOM 368 CG ARG C 131 128.177 143.285 148.467 1.00 99.74 C
ATOM 369 CD ARG C 131 127.973 141.821 148.126 1.00 99.74 C
ATOM 370 NE ARG C 131 126.846 141.246 148.855 1.00 99.74 N
ATOM 371 CZ ARG C 131 125.571 141.449 148.541 1.00 99.74 C
ATOM 372 NH1 ARG C 131 124.611 140.886 149.262 1.00 99.74 N
ATOM 373 NH2 ARG C 131 125.255 142.220 147.510 1.00 99.74 N
ATOM 374 N ASN C 132 127.979 146.565 149.222 1.00 97.19 N
ATOM 375 CA ASN C 132 127.700 147.218 150.493 1.00 97.19 C
ATOM 376 C ASN C 132 126.251 146.976 150.888 1.00 97.19 C
ATOM 377 O ASN C 132 125.356 146.949 150.039 1.00 97.19 O
ATOM 378 CB ASN C 132 127.973 148.723 150.428 1.00 97.19 C
ATOM 379 CG ASN C 132 129.381 149.073 150.844 1.00 97.19 C
ATOM 380 OD1 ASN C 132 129.971 148.407 151.693 1.00 97.19 O
ATOM 381 ND2 ASN C 132 129.930 150.123 150.248 1.00 97.19 N
ATOM 382 N ILE C 133 126.030 146.806 152.190 1.00 87.69 N
ATOM 383 CA ILE C 133 124.696 146.639 152.752 1.00 87.69 C
ATOM 384 C ILE C 133 124.474 147.713 153.808 1.00 87.69 C
ATOM 385 O ILE C 133 125.409 148.153 154.483 1.00 87.69 O
ATOM 386 CB ILE C 133 124.489 145.231 153.349 1.00 87.69 C
ATOM 387 CG1 ILE C 133 124.526 144.173 152.247 1.00 87.69 C
ATOM 388 CG2 ILE C 133 123.178 145.160 154.102 1.00 87.69 C
ATOM 389 CD1 ILE C 133 125.894 143.580 152.024 1.00 87.69 C

ATOM 390 N VAL C 134 123.218 148.133 153.948 1.00 75.15 N
ATOM 391 CA VAL C 134 122.854 149.239 154.827 1.00 75.15 C
ATOM 392 C VAL C 134 122.787 148.780 156.279 1.00 75.15 C
ATOM 393 O VAL C 134 122.725 147.579 156.564 1.00 75.15 O
ATOM 394 CB VAL C 134 121.517 149.863 154.391 1.00 75.15 C
ATOM 395 CG1 VAL C 134 121.644 150.459 153.003 1.00 75.15 C
ATOM 396 CG2 VAL C 134 120.419 148.819 154.420 1.00 75.15 C
ATOM 397 N ALA C 135 122.802 149.738 157.202 1.00 58.42 N
ATOM 398 CA ALA C 135 122.694 149.491 158.628 1.00 58.42 C
ATOM 399 C ALA C 135 121.283 149.838 159.103 1.00 58.42 C
ATOM 400 O ALA C 135 120.371 150.060 158.304 1.00 58.42 O
ATOM 401 CB ALA C 135 123.764 150.285 159.375 1.00 58.42 C
ATOM 402 N HIS C 136 121.093 149.881 160.420 1.00 49.38 N
ATOM 403 CA HIS C 136 119.781 150.139 160.994 1.00 49.38 C
ATOM 404 C HIS C 136 119.963 150.857 162.326 1.00 49.38 C
ATOM 405 O HIS C 136 120.878 150.531 163.083 1.00 49.38 O
ATOM 406 CB HIS C 136 119.015 148.827 161.180 1.00 49.38 C
ATOM 407 CG HIS C 136 117.532 148.969 161.067 1.00 49.38 C
ATOM 408 ND1 HIS C 136 116.655 148.056 161.609 1.00 49.38 N
ATOM 409 CD2 HIS C 136 116.770 149.908 160.459 1.00 49.38 C
ATOM 410 CE1 HIS C 136 115.416 148.433 161.352 1.00 49.38 C
ATOM 411 NE2 HIS C 136 115.458 149.553 160.654 1.00 49.38 N
ATOM 412 N THR C 137 119.098 151.836 162.609 1.00 42.77 N
ATOM 413 CA THR C 137 119.179 152.612 163.845 1.00 42.77 C
ATOM 414 C THR C 137 117.779 152.845 164.397 1.00 42.77 C
ATOM 415 O THR C 137 116.910 153.335 163.672 1.00 42.77 O
ATOM 416 CB THR C 137 119.877 153.953 163.604 1.00 42.77 C
ATOM 417 OG1 THR C 137 118.974 154.845 162.947 1.00 42.77 O
ATOM 418 CG2 THR C 137 121.100 153.765 162.727 1.00 42.77 C
ATOM 419 N PHE C 138 117.551 152.502 165.682 1.00 42.36 N
ATOM 420 CA PHE C 138 116.172 152.458 166.161 1.00 42.36 C
ATOM 421 C PHE C 138 115.921 152.966 167.587 1.00 42.36 C
ATOM 422 O PHE C 138 114.873 152.644 168.157 1.00 42.36 O
ATOM 423 CB PHE C 138 115.630 151.036 166.042 1.00 42.36 C

ATOM 424 CG PHE C 138 116.532 149.994 166.618 1.00 42.36 C
ATOM 425 CD1 PHE C 138 117.646 149.571 165.928 1.00 42.36 C
ATOM 426 CD2 PHE C 138 116.259 149.431 167.845 1.00 42.36 C
ATOM 427 CE1 PHE C 138 118.471 148.617 166.451 1.00 42.36 C
ATOM 428 CE2 PHE C 138 117.081 148.475 168.371 1.00 42.36 C
ATOM 429 CZ PHE C 138 118.190 148.067 167.674 1.00 42.36 C
ATOM 430 N LYS C 139 116.817 153.747 168.192 1.00 37.90 N
ATOM 431 CA LYS C 139 116.446 154.592 169.334 1.00 37.90 C
ATOM 432 C LYS C 139 115.879 153.781 170.510 1.00 37.90 C
ATOM 433 O LYS C 139 114.686 153.822 170.808 1.00 37.90 O
ATOM 434 CB LYS C 139 115.445 155.660 168.882 1.00 37.90 C
ATOM 435 CG LYS C 139 115.059 156.658 169.955 1.00 37.90 C
ATOM 436 CD LYS C 139 116.222 157.565 170.311 1.00 37.90 C
ATOM 437 CE LYS C 139 116.559 158.518 169.178 1.00 37.90 C
ATOM 438 NZ LYS C 139 115.542 159.592 169.039 1.00 37.90 N
ATOM 439 N VAL C 140 116.763 153.021 171.166 1.00 36.42 N
ATOM 440 CA VAL C 140 116.390 152.210 172.329 1.00 36.42 C
ATOM 441 C VAL C 140 116.400 153.027 173.621 1.00 36.42 C
ATOM 442 O VAL C 140 116.949 154.132 173.665 1.00 36.42 O
ATOM 443 CB VAL C 140 117.318 150.993 172.476 1.00 36.42 C
ATOM 444 CG1 VAL C 140 117.273 150.139 171.233 1.00 36.42 C
ATOM 445 CG2 VAL C 140 118.729 151.436 172.768 1.00 36.42 C
ATOM 446 N ARG C 141 115.800 152.479 174.684 1.00 37.17 N
ATOM 447 CA ARG C 141 115.745 153.096 176.006 1.00 37.17 C
ATOM 448 C ARG C 141 116.363 152.176 177.051 1.00 37.17 C
ATOM 449 O ARG C 141 116.389 150.956 176.882 1.00 37.17 O
ATOM 450 CB ARG C 141 114.311 153.410 176.432 1.00 37.17 C
ATOM 451 CG ARG C 141 113.586 154.386 175.546 1.00 37.17 C
ATOM 452 CD ARG C 141 112.135 154.501 175.963 1.00 37.17 C
ATOM 453 NE ARG C 141 111.385 153.293 175.644 1.00 37.17 N
ATOM 454 CZ ARG C 141 110.752 153.089 174.495 1.00 37.17 C
ATOM 455 NH1 ARG C 141 110.776 154.018 173.551 1.00 37.17 N
ATOM 456 NH2 ARG C 141 110.095 151.958 174.289 1.00 37.17 N
ATOM 457 N VAL C 142 116.847 152.767 178.144 1.00 35.61 N

ATOM 458 CA VAL C 142 117.490 152.031 179.228 1.00 35.61 C
ATOM 459 C VAL C 142 116.969 152.540 180.564 1.00 35.61 C
ATOM 460 O VAL C 142 116.871 153.752 180.778 1.00 35.61 O
ATOM 461 CB VAL C 142 119.025 152.165 179.179 1.00 35.61 C
ATOM 462 CG1 VAL C 142 119.651 151.369 180.296 1.00 35.61 C
ATOM 463 CG2 VAL C 142 119.557 151.707 177.843 1.00 35.61 C
ATOM 464 N TYR C 143 116.643 151.619 181.465 1.00 41.95 N
ATOM 465 CA TYR C 143 116.243 151.950 182.824 1.00 41.95 C
ATOM 466 C TYR C 143 117.325 151.511 183.800 1.00 41.95 C
ATOM 467 O TYR C 143 118.164 150.665 183.487 1.00 41.95 O
ATOM 468 CB TYR C 143 114.911 151.288 183.192 1.00 41.95 C
ATOM 469 CG TYR C 143 113.768 151.648 182.278 1.00 41.95 C
ATOM 470 CD1 TYR C 143 113.583 150.991 181.077 1.00 41.95 C
ATOM 471 CD2 TYR C 143 112.872 152.643 182.619 1.00 41.95 C
ATOM 472 CE1 TYR C 143 112.541 151.316 180.241 1.00 41.95 C
ATOM 473 CE2 TYR C 143 111.828 152.974 181.788 1.00 41.95 C
ATOM 474 CZ TYR C 143 111.666 152.306 180.600 1.00 41.95 C
ATOM 475 OH TYR C 143 110.623 152.631 179.766 1.00 41.95 O
ATOM 476 N GLN C 144 117.301 152.094 184.995 1.00 48.15 N
ATOM 477 CA GLN C 144 118.341 151.831 185.984 1.00 48.15 C
ATOM 478 C GLN C 144 117.973 152.559 187.269 1.00 48.15 C
ATOM 479 O GLN C 144 117.049 153.377 187.298 1.00 48.15 O
ATOM 480 CB GLN C 144 119.710 152.276 185.484 1.00 48.15 C
ATOM 481 CG GLN C 144 120.868 151.769 186.301 1.00 48.15 C
ATOM 482 CD GLN C 144 122.167 151.815 185.533 1.00 48.15 C
ATOM 483 OE1 GLN C 144 122.341 152.636 184.636 1.00 48.15 O
ATOM 484 NE2 GLN C 144 123.088 150.927 185.876 1.00 48.15 N
ATOM 485 N LYS C 145 118.714 152.259 188.334 1.00 55.95 N
ATOM 486 CA LYS C 145 118.434 152.838 189.646 1.00 55.95 C
ATOM 487 C LYS C 145 119.687 152.729 190.499 1.00 55.95 C
ATOM 488 O LYS C 145 120.157 151.618 190.758 1.00 55.95 O
ATOM 489 CB LYS C 145 117.263 152.125 190.310 1.00 55.95 C
ATOM 490 CG LYS C 145 116.885 152.680 191.659 1.00 55.95 C
ATOM 491 CD LYS C 145 116.021 151.698 192.418 1.00 55.95 C

ATOM 492 CE LYS C 145 114.568 151.816 192.016 1.00 55.95 C
ATOM 493 NZ LYS C 145 113.964 153.075 192.507 1.00 55.95 N
ATOM 494 N VAL C 146 120.222 153.867 190.934 1.00 61.82 N
ATOM 495 CA VAL C 146 121.470 153.926 191.686 1.00 61.82 C
ATOM 496 C VAL C 146 121.163 154.224 193.146 1.00 61.82 C
ATOM 497 O VAL C 146 120.251 154.998 193.454 1.00 61.82 O
ATOM 498 CB VAL C 146 122.426 154.988 191.112 1.00 61.82 C
ATOM 499 CG1 VAL C 146 123.675 155.083 191.960 1.00 61.82 C
ATOM 500 CG2 VAL C 146 122.783 154.659 189.681 1.00 61.82 C
ATOM 501 N LEU C 147 121.933 153.609 194.043 1.00 71.75 N
ATOM 502 CA LEU C 147 121.815 153.869 195.471 1.00 71.75 C
ATOM 503 C LEU C 147 123.202 153.789 196.090 1.00 71.75 C
ATOM 504 O LEU C 147 123.891 152.777 195.937 1.00 71.75 O
ATOM 505 CB LEU C 147 120.861 152.878 196.146 1.00 71.75 C
ATOM 506 CG LEU C 147 121.351 151.452 196.372 1.00 71.75 C
ATOM 507 CD1 LEU C 147 120.444 150.741 197.352 1.00 71.75 C
ATOM 508 CD2 LEU C 147 121.405 150.700 195.066 1.00 71.75 C
ATOM 509 N THR C 148 123.600 154.849 196.791 1.00 80.47 N
ATOM 510 CA THR C 148 124.965 155.026 197.265 1.00 80.47 C
ATOM 511 C THR C 148 125.013 155.065 198.786 1.00 80.47 C
ATOM 512 O THR C 148 124.114 155.611 199.433 1.00 80.47 O
ATOM 513 CB THR C 148 125.569 156.310 196.703 1.00 80.47 C
ATOM 514 OG1 THR C 148 126.860 156.525 197.283 1.00 80.47 O
ATOM 515 CG2 THR C 148 124.675 157.489 197.012 1.00 80.47 C
ATOM 516 N PHE C 149 126.073 154.488 199.348 1.00 84.21 N
ATOM 517 CA PHE C 149 126.293 154.424 200.785 1.00 84.21 C
ATOM 518 C PHE C 149 127.428 155.358 201.188 1.00 84.21 C
ATOM 519 O PHE C 149 128.265 155.744 200.369 1.00 84.21 O
ATOM 520 CB PHE C 149 126.622 152.995 201.226 1.00 84.21 C
ATOM 521 CG PHE C 149 125.536 152.006 200.932 1.00 84.21 C
ATOM 522 CD1 PHE C 149 124.277 152.158 201.481 1.00 84.21 C
ATOM 523 CD2 PHE C 149 125.774 150.923 200.109 1.00 84.21 C
ATOM 524 CE1 PHE C 149 123.278 151.247 201.214 1.00 84.21 C
ATOM 525 CE2 PHE C 149 124.778 150.010 199.839 1.00 84.21 C

ATOM 526 CZ PHE C 149 123.528 150.173 200.392 1.00 84.21 C
ATOM 527 N ARG C 150 127.449 155.715 202.469 1.00 95.49 N
ATOM 528 CA ARG C 150 128.449 156.650 202.965 1.00 95.49 C
ATOM 529 C ARG C 150 128.369 156.701 204.483 1.00 95.49 C
ATOM 530 O ARG C 150 127.283 156.599 205.060 1.00 95.49 O
ATOM 531 CB ARG C 150 128.242 158.044 202.366 1.00 95.49 C
ATOM 532 CG ARG C 150 128.993 159.151 203.072 1.00 95.49 C
ATOM 533 CD ARG C 150 128.743 160.485 202.396 1.00 95.49 C
ATOM 534 NE ARG C 150 129.313 160.524 201.054 1.00 95.49 N
ATOM 535 CZ ARG C 150 128.606 160.358 199.941 1.00 95.49 C
ATOM 536 NH1 ARG C 150 127.300 160.144 200.011 1.00 95.49 N
ATOM 537 NH2 ARG C 150 129.204 160.407 198.759 1.00 95.49 N
ATOM 538 N ARG C 151 129.529 156.866 205.120 1.00 94.21 N
ATOM 539 CA ARG C 151 129.609 156.929 206.573 1.00 94.21 C
ATOM 540 C ARG C 151 130.728 157.880 206.976 1.00 94.21 C
ATOM 541 O ARG C 151 131.756 157.969 206.301 1.00 94.21 O
ATOM 542 CB ARG C 151 129.841 155.544 207.183 1.00 94.21 C
ATOM 543 CG ARG C 151 131.042 154.812 206.626 1.00 94.21 C
ATOM 544 CD ARG C 151 130.838 153.311 206.699 1.00 94.21 C
ATOM 545 NE ARG C 151 132.099 152.581 206.635 1.00 94.21 N
ATOM 546 CZ ARG C 151 132.766 152.339 205.512 1.00 94.21 C
ATOM 547 NH1 ARG C 151 132.296 152.772 204.352 1.00 94.21 N
ATOM 548 NH2 ARG C 151 133.907 151.667 205.550 1.00 94.21 N
ATOM 549 N SER C 152 130.518 158.588 208.087 1.00 94.56 N
ATOM 550 CA SER C 152 131.449 159.622 208.516 1.00 94.56 C
ATOM 551 C SER C 152 131.399 159.777 210.030 1.00 94.56 C
ATOM 552 O SER C 152 130.544 159.206 210.710 1.00 94.56 O
ATOM 553 CB SER C 152 131.139 160.957 207.837 1.00 94.56 C
ATOM 554 OG SER C 152 129.906 161.478 208.297 1.00 94.56 O
ATOM 555 N TYR C 153 132.337 160.573 210.548 1.00 95.70 N
ATOM 556 CA TYR C 153 132.441 160.905 211.963 1.00 95.70 C
ATOM 557 C TYR C 153 132.592 162.413 212.109 1.00 95.70 C
ATOM 558 O TYR C 153 133.364 163.039 211.377 1.00 95.70 O
ATOM 559 CB TYR C 153 133.629 160.191 212.618 1.00 95.70 C

ATOM 560 CG TYR C 153 133.582 160.170 214.128 1.00 95.70 C
ATOM 561 CD1 TYR C 153 133.754 161.330 214.864 1.00 95.70 C
ATOM 562 CD2 TYR C 153 133.370 158.987 214.818 1.00 95.70 C
ATOM 563 CE1 TYR C 153 133.712 161.315 216.239 1.00 95.70 C
ATOM 564 CE2 TYR C 153 133.327 158.964 216.193 1.00 95.70 C
ATOM 565 CZ TYR C 153 133.499 160.131 216.898 1.00 95.70 C
ATOM 566 OH TYR C 153 133.456 160.116 218.270 1.00 95.70 O
ATOM 567 N ALA C 154 131.862 162.992 213.058 1.00100.46 N
ATOM 568 CA ALA C 154 131.747 164.440 213.194 1.00100.46 C
ATOM 569 C ALA C 154 132.444 164.910 214.466 1.00100.46 C
ATOM 570 O ALA C 154 132.070 164.500 215.569 1.00100.46 O
ATOM 571 CB ALA C 154 130.279 164.864 213.205 1.00100.46 C
ATOM 572 N TYR C 155 133.451 165.769 214.308 1.00100.44 N
ATOM 573 CA TYR C 155 134.109 166.414 215.438 1.00100.44 C
ATOM 574 C TYR C 155 133.411 167.732 215.763 1.00100.44 C
ATOM 575 O TYR C 155 132.323 168.034 215.267 1.00100.44 O
ATOM 576 CB TYR C 155 135.590 166.646 215.152 1.00100.44 C
ATOM 577 CG TYR C 155 136.452 165.415 215.260 1.00100.44 C
ATOM 578 CD1 TYR C 155 135.999 164.284 215.918 1.00100.44 C
ATOM 579 CD2 TYR C 155 137.722 165.387 214.707 1.00100.44 C
ATOM 580 CE1 TYR C 155 136.786 163.158 216.019 1.00100.44 C
ATOM 581 CE2 TYR C 155 138.515 164.266 214.802 1.00100.44 C
ATOM 582 CZ TYR C 155 138.046 163.155 215.457 1.00100.44 C
ATOM 583 OH TYR C 155 138.850 162.042 215.542 1.00100.44 O
ATOM 584 N ILE C 156 134.047 168.532 216.619 1.00105.50 N
ATOM 585 CA ILE C 156 133.572 169.880 216.895 1.00105.50 C
ATOM 586 C ILE C 156 134.096 170.896 215.889 1.00105.50 C
ATOM 587 O ILE C 156 133.539 171.999 215.789 1.00105.50 O
ATOM 588 CB ILE C 156 133.973 170.324 218.311 1.00105.50 C
ATOM 589 CG1 ILE C 156 133.740 169.192 219.311 1.00105.50 C
ATOM 590 CG2 ILE C 156 133.198 171.566 218.713 1.00105.50 C
ATOM 591 CD1 ILE C 156 134.580 169.309 220.562 1.00105.50 C
ATOM 592 N HIS C 157 135.153 170.565 215.151 1.00109.14 N
ATOM 593 CA HIS C 157 135.761 171.480 214.194 1.00109.14 C

ATOM 594 C HIS C 157 135.599 171.023 212.753 1.00109.14 C
ATOM 595 O HIS C 157 135.066 171.767 211.924 1.00109.14 O
ATOM 596 CB HIS C 157 137.251 171.653 214.517 1.00109.14 C
ATOM 597 CG HIS C 157 137.774 173.027 214.237 1.00109.14 C
ATOM 598 ND1 HIS C 157 137.326 174.144 214.907 1.00109.14 N
ATOM 599 CD2 HIS C 157 138.710 173.462 213.361 1.00109.14 C
ATOM 600 CE1 HIS C 157 137.963 175.210 214.455 1.00109.14 C
ATOM 601 NE2 HIS C 157 138.808 174.823 213.516 1.00109.14 N
ATOM 602 N THR C 158 136.045 169.815 212.432 1.00105.54 N
ATOM 603 CA THR C 158 135.996 169.283 211.081 1.00105.54 C
ATOM 604 C THR C 158 135.024 168.107 211.013 1.00105.54 C
ATOM 605 O THR C 158 134.326 167.788 211.981 1.00105.54 O
ATOM 606 CB THR C 158 137.398 168.881 210.622 1.00105.54 C
ATOM 607 OG1 THR C 158 137.926 167.887 211.508 1.00105.54 O
ATOM 608 CG2 THR C 158 138.322 170.086 210.612 1.00105.54 C
ATOM 609 N THR C 159 134.976 167.463 209.850 1.00103.39 N
ATOM 610 CA THR C 159 134.133 166.292 209.644 1.00103.39 C
ATOM 611 C THR C 159 134.844 165.359 208.679 1.00103.39 C
ATOM 612 O THR C 159 135.137 165.750 207.545 1.00103.39 O
ATOM 613 CB THR C 159 132.760 166.686 209.099 1.00103.39 C
ATOM 614 OG1 THR C 159 132.212 167.738 209.901 1.00103.39 O
ATOM 615 CG2 THR C 159 131.818 165.495 209.121 1.00103.39 C
ATOM 616 N TYR C 160 135.120 164.140 209.122 1.00 98.20 N
ATOM 617 CA TYR C 160 135.857 163.172 208.328 1.00 98.20 C
ATOM 618 C TYR C 160 134.907 162.167 207.690 1.00 98.20 C
ATOM 619 O TYR C 160 133.769 161.984 208.128 1.00 98.20 O
ATOM 620 CB TYR C 160 136.894 162.444 209.186 1.00 98.20 C
ATOM 621 CG TYR C 160 137.974 163.350 209.727 1.00 98.20 C
ATOM 622 CD1 TYR C 160 137.696 164.275 210.723 1.00 98.20 C
ATOM 623 CD2 TYR C 160 139.271 163.281 209.243 1.00 98.20 C
ATOM 624 CE1 TYR C 160 138.677 165.104 211.219 1.00 98.20 C
ATOM 625 CE2 TYR C 160 140.259 164.109 209.734 1.00 98.20 C
ATOM 626 CZ TYR C 160 139.955 165.018 210.721 1.00 98.20 C
ATOM 627 OH TYR C 160 140.935 165.845 211.215 1.00 98.20 O

ATOM 628 N LEU C 161 135.395 161.513 206.638 1.00 93.16 N
ATOM 629 CA LEU C 161 134.633 160.509 205.908 1.00 93.16 C
ATOM 630 C LEU C 161 135.477 159.249 205.808 1.00 93.16 C
ATOM 631 O LEU C 161 136.552 159.268 205.202 1.00 93.16 O
ATOM 632 CB LEU C 161 134.243 161.014 204.517 1.00 93.16 C
ATOM 633 CG LEU C 161 133.296 160.133 203.704 1.00 93.16 C
ATOM 634 CD1 LEU C 161 132.479 160.979 202.748 1.00 93.16 C
ATOM 635 CD2 LEU C 161 134.080 159.081 202.945 1.00 93.16 C
ATOM 636 N LEU C 162 134.991 158.160 206.395 1.00 92.08 N
ATOM 637 CA LEU C 162 135.762 156.931 206.506 1.00 92.08 C
ATOM 638 C LEU C 162 135.574 155.991 205.324 1.00 92.08 C
ATOM 639 O LEU C 162 136.141 154.893 205.333 1.00 92.08 O
ATOM 640 CB LEU C 162 135.397 156.201 207.801 1.00 92.08 C
ATOM 641 CG LEU C 162 135.356 157.055 209.066 1.00 92.08 C
ATOM 642 CD1 LEU C 162 134.714 156.290 210.207 1.00 92.08 C
ATOM 643 CD2 LEU C 162 136.754 157.504 209.444 1.00 92.08 C
ATOM 644 N GLY C 163 134.806 156.378 204.322 1.00 92.94 N
ATOM 645 CA GLY C 163 134.619 155.540 203.153 1.00 92.94 C
ATOM 646 C GLY C 163 133.263 155.773 202.525 1.00 92.94 C
ATOM 647 O GLY C 163 132.419 156.497 203.046 1.00 92.94 O
ATOM 648 N SER C 164 133.068 155.136 201.373 1.00 89.54 N
ATOM 649 CA SER C 164 131.815 155.207 200.635 1.00 89.54 C
ATOM 650 C SER C 164 131.925 154.287 199.429 1.00 89.54 C
ATOM 651 O SER C 164 133.025 153.925 199.004 1.00 89.54 O
ATOM 652 CB SER C 164 131.493 156.633 200.191 1.00 89.54 C
ATOM 653 OG SER C 164 132.099 156.924 198.945 1.00 89.54 O
ATOM 654 N ASN C 165 130.771 153.914 198.883 1.00 84.09 N
ATOM 655 CA ASN C 165 130.721 153.056 197.708 1.00 84.09 C
ATOM 656 C ASN C 165 129.374 153.245 197.029 1.00 84.09 C
ATOM 657 O ASN C 165 128.470 153.888 197.568 1.00 84.09 O
ATOM 658 CB ASN C 165 130.952 151.589 198.077 1.00 84.09 C
ATOM 659 CG ASN C 165 129.865 151.033 198.971 1.00 84.09 C
ATOM 660 OD1 ASN C 165 128.913 151.729 199.320 1.00 84.09 O
ATOM 661 ND2 ASN C 165 130.000 149.768 199.343 1.00 84.09 N

ATOM 662 N THR C 166 129.248 152.669 195.837 1.00 77.37 N
ATOM 663 CA THR C 166 128.029 152.760 195.048 1.00 77.37 C
ATOM 664 C THR C 166 127.601 151.365 194.613 1.00 77.37 C
ATOM 665 O THR C 166 128.336 150.388 194.770 1.00 77.37 O
ATOM 666 CB THR C 166 128.221 153.665 193.825 1.00 77.37 C
ATOM 667 OG1 THR C 166 128.988 154.814 194.200 1.00 77.37 O
ATOM 668 CG2 THR C 166 126.880 154.126 193.298 1.00 77.37 C
ATOM 669 N GLU C 167 126.394 151.277 194.064 1.00 73.98 N
ATOM 670 CA GLU C 167 125.860 149.999 193.613 1.00 73.98 C
ATOM 671 C GLU C 167 124.649 150.252 192.729 1.00 73.98 C
ATOM 672 O GLU C 167 123.770 151.035 193.095 1.00 73.98 O
ATOM 673 CB GLU C 167 125.482 149.115 194.801 1.00 73.98 C
ATOM 674 CG GLU C 167 124.926 147.768 194.401 1.00 73.98 C
ATOM 675 CD GLU C 167 125.361 146.662 195.336 1.00 73.98 C
ATOM 676 OE1 GLU C 167 124.540 145.765 195.618 1.00 73.98 O
ATOM 677 OE2 GLU C 167 126.524 146.688 195.787 1.00 73.98 O
ATOM 678 N TYR C 168 124.609 149.587 191.577 1.00 62.72 N
ATOM 679 CA TYR C 168 123.550 149.757 190.591 1.00 62.72 C
ATOM 680 C TYR C 168 122.643 148.537 190.591 1.00 62.72 C
ATOM 681 O TYR C 168 123.116 147.402 190.686 1.00 62.72 O
ATOM 682 CB TYR C 168 124.133 149.962 189.193 1.00 62.72 C
ATOM 683 CG TYR C 168 125.133 151.086 189.106 1.00 62.72 C
ATOM 684 CD1 TYR C 168 126.450 150.899 189.487 1.00 62.72 C
ATOM 685 CD2 TYR C 168 124.761 152.336 188.640 1.00 62.72 C
ATOM 686 CE1 TYR C 168 127.366 151.924 189.409 1.00 62.72 C
ATOM 687 CE2 TYR C 168 125.668 153.366 188.559 1.00 62.72 C
ATOM 688 CZ TYR C 168 126.968 153.155 188.944 1.00 62.72 C
ATOM 689 OH TYR C 168 127.876 154.183 188.864 1.00 62.72 O
ATOM 690 N VAL C 169 121.339 148.771 190.475 1.00 60.29 N
ATOM 691 CA VAL C 169 120.366 147.686 190.488 1.00 60.29 C
ATOM 692 C VAL C 169 119.184 148.082 189.617 1.00 60.29 C
ATOM 693 O VAL C 169 118.830 149.261 189.533 1.00 60.29 O
ATOM 694 CB VAL C 169 119.917 147.354 191.925 1.00 60.29 C
ATOM 695 CG1 VAL C 169 118.983 148.424 192.446 1.00 60.29 C

ATOM 696 CG2 VAL C 169 119.260 145.993 191.965 1.00 60.29 C
ATOM 697 N ALA C 170 118.563 147.079 188.965 1.00 52.81 N
ATOM 698 CA ALA C 170 117.470 147.291 188.019 1.00 52.81 C
ATOM 699 C ALA C 170 116.129 147.242 188.738 1.00 52.81 C
ATOM 700 O ALA C 170 115.874 146.298 189.492 1.00 52.81 O
ATOM 701 CB ALA C 170 117.497 146.241 186.920 1.00 52.81 C
ATOM 702 N PRO C 171 115.253 148.218 188.527 1.00 51.22 N
ATOM 703 CA PRO C 171 114.006 148.280 189.293 1.00 51.22 C
ATOM 704 C PRO C 171 113.128 147.076 189.013 1.00 51.22 C
ATOM 705 O PRO C 171 113.443 146.253 188.142 1.00 51.22 O
ATOM 706 CB PRO C 171 113.348 149.575 188.796 1.00 51.22 C
ATOM 707 CG PRO C 171 113.992 149.865 187.499 1.00 51.22 C
ATOM 708 CD PRO C 171 115.381 149.338 187.583 1.00 51.22 C
ATOM 709 N PRO C 172 112.022 146.933 189.737 1.00 63.84 N
ATOM 710 CA PRO C 172 111.092 145.835 189.478 1.00 63.84 C
ATOM 711 C PRO C 172 110.077 146.197 188.409 1.00 63.84 C
ATOM 712 O PRO C 172 109.736 147.362 188.199 1.00 63.84 O
ATOM 713 CB PRO C 172 110.412 145.647 190.839 1.00 63.84 C
ATOM 714 CG PRO C 172 110.362 147.025 191.391 1.00 63.84 C
ATOM 715 CD PRO C 172 111.591 147.753 190.882 1.00 63.84 C
ATOM 716 N MET C 173 109.584 145.158 187.734 1.00 69.89 N
ATOM 717 CA MET C 173 108.731 145.355 186.568 1.00 69.89 C
ATOM 718 C MET C 173 107.590 146.326 186.856 1.00 69.89 C
ATOM 719 O MET C 173 107.409 147.316 186.140 1.00 69.89 O
ATOM 720 CB MET C 173 108.189 144.009 186.089 1.00 69.89 C
ATOM 721 CG MET C 173 107.749 143.996 184.636 1.00 69.89 C
ATOM 722 SD MET C 173 109.017 144.594 183.502 1.00 69.89 S
ATOM 723 CE MET C 173 110.429 143.632 184.030 1.00 69.89 C
ATOM 724 N TRP C 174 106.816 146.068 187.913 1.00 82.32 N
ATOM 725 CA TRP C 174 105.593 146.833 188.133 1.00 82.32 C
ATOM 726 C TRP C 174 105.836 148.335 188.203 1.00 82.32 C
ATOM 727 O TRP C 174 104.874 149.108 188.134 1.00 82.32 O
ATOM 728 CB TRP C 174 104.887 146.369 189.410 1.00 82.32 C
ATOM 729 CG TRP C 174 105.552 146.799 190.681 1.00 82.32 C

ATOM 730 CD1 TRP C 174 105.432 148.009 191.302 1.00 82.32 C
ATOM 731 CD2 TRP C 174 106.422 146.014 191.500 1.00 82.32 C
ATOM 732 NE1 TRP C 174 106.183 148.029 192.450 1.00 82.32 N
ATOM 733 CE2 TRP C 174 106.801 146.815 192.595 1.00 82.32 C
ATOM 734 CE3 TRP C 174 106.922 144.713 191.412 1.00 82.32 C
ATOM 735 CZ2 TRP C 174 107.655 146.357 193.591 1.00 82.32 C
ATOM 736 CZ3 TRP C 174 107.770 144.261 192.401 1.00 82.32 C
ATOM 737 CH2 TRP C 174 108.129 145.079 193.477 1.00 82.32 C
ATOM 738 N GLU C 175 107.087 148.772 188.343 1.00 70.74 N
ATOM 739 CA GLU C 175 107.382 150.197 188.394 1.00 70.74 C
ATOM 740 C GLU C 175 107.751 150.777 187.037 1.00 70.74 C
ATOM 741 O GLU C 175 107.580 151.985 186.823 1.00 70.74 O
ATOM 742 CB GLU C 175 108.511 150.474 189.388 1.00 70.74 C
ATOM 743 CG GLU C 175 108.648 151.940 189.741 1.00 70.74 C
ATOM 744 CD GLU C 175 109.691 152.189 190.801 1.00 70.74 C
ATOM 745 OE1 GLU C 175 110.521 151.288 191.041 1.00 70.74 O
ATOM 746 OE2 GLU C 175 109.683 153.287 191.394 1.00 70.74 O
ATOM 747 N ILE C 176 108.272 149.954 186.123 1.00 61.03 N
ATOM 748 CA ILE C 176 108.457 150.395 184.749 1.00 61.03 C
ATOM 749 C ILE C 176 107.133 150.625 184.044 1.00 61.03 C
ATOM 750 O ILE C 176 107.116 151.165 182.934 1.00 61.03 O
ATOM 751 CB ILE C 176 109.306 149.378 183.966 1.00 61.03 C
ATOM 752 CG1 ILE C 176 110.628 149.140 184.683 1.00 61.03 C
ATOM 753 CG2 ILE C 176 109.579 149.882 182.575 1.00 61.03 C
ATOM 754 CD1 ILE C 176 111.622 148.372 183.861 1.00 61.03 C
ATOM 755 N HIS C 177 106.020 150.233 184.665 1.00 67.72 N
ATOM 756 CA HIS C 177 104.701 150.543 184.140 1.00 67.72 C
ATOM 757 C HIS C 177 104.174 151.879 184.638 1.00 67.72 C
ATOM 758 O HIS C 177 103.259 152.437 184.022 1.00 67.72 O
ATOM 759 CB HIS C 177 103.707 149.438 184.505 1.00 67.72 C
ATOM 760 CG HIS C 177 103.931 148.158 183.765 1.00 67.72 C
ATOM 761 ND1 HIS C 177 104.830 148.047 182.727 1.00 67.72 N
ATOM 762 CD2 HIS C 177 103.376 146.933 183.914 1.00 67.72 C
ATOM 763 CE1 HIS C 177 104.819 146.810 182.268 1.00 67.72 C

ATOM 764 NE2 HIS C 177 103.946 146.112 182.971 1.00 67.72 N
ATOM 765 N HIS C 178 104.723 152.402 185.733 1.00 65.73 N
ATOM 766 CA HIS C 178 104.420 153.757 186.173 1.00 65.73 C
ATOM 767 C HIS C 178 105.391 154.785 185.624 1.00 65.73 C
ATOM 768 O HIS C 178 104.988 155.923 185.364 1.00 65.73 O
ATOM 769 CB HIS C 178 104.416 153.840 187.700 1.00 65.73 C
ATOM 770 CG HIS C 178 103.067 153.620 188.307 1.00 65.73 C
ATOM 771 ND1 HIS C 178 102.094 154.595 188.325 1.00 65.73 N
ATOM 772 CD2 HIS C 178 102.525 152.535 188.910 1.00 65.73 C
ATOM 773 CE1 HIS C 178 101.011 154.122 188.917 1.00 65.73 C
ATOM 774 NE2 HIS C 178 101.247 152.874 189.282 1.00 65.73 N
ATOM 775 N ILE C 179 106.657 154.414 185.438 1.00 59.23 N
ATOM 776 CA ILE C 179 107.589 155.318 184.772 1.00 59.23 C
ATOM 777 C ILE C 179 107.092 155.650 183.372 1.00 59.23 C
ATOM 778 O ILE C 179 107.182 156.798 182.920 1.00 59.23 O
ATOM 779 CB ILE C 179 109.002 154.711 184.737 1.00 59.23 C
ATOM 780 CG1 ILE C 179 109.545 154.541 186.150 1.00 59.23 C
ATOM 781 CG2 ILE C 179 109.932 155.586 183.922 1.00 59.23 C
ATOM 782 CD1 ILE C 179 111.031 154.296 186.194 1.00 59.23 C
ATOM 783 N ASN C 180 106.558 154.657 182.665 1.00 57.86 N
ATOM 784 CA ASN C 180 106.109 154.811 181.289 1.00 57.86 C
ATOM 785 C ASN C 180 104.682 155.328 181.178 1.00 57.86 C
ATOM 786 O ASN C 180 104.129 155.337 180.077 1.00 57.86 O
ATOM 787 CB ASN C 180 106.223 153.478 180.548 1.00 57.86 C
ATOM 788 CG ASN C 180 107.633 153.176 180.105 1.00 57.86 C
ATOM 789 OD1 ASN C 180 108.427 154.083 179.869 1.00 57.86 O
ATOM 790 ND2 ASN C 180 107.954 151.897 179.989 1.00 57.86 N
ATOM 791 N SER C 181 104.069 155.743 182.283 1.00 59.18 N
ATOM 792 CA SER C 181 102.717 156.282 182.220 1.00 59.18 C
ATOM 793 C SER C 181 102.520 157.558 183.021 1.00 59.18 C
ATOM 794 O SER C 181 101.502 158.225 182.823 1.00 59.18 O
ATOM 795 CB SER C 181 101.703 155.236 182.696 1.00 59.18 C
ATOM 796 OG SER C 181 101.989 153.971 182.128 1.00 59.18 O
ATOM 797 N HIS C 182 103.436 157.919 183.918 1.00 64.81 N

ATOM 798 CA HIS C 182 103.343 159.189 184.624 1.00 64.81 C
ATOM 799 C HIS C 182 104.666 159.929 184.741 1.00 64.81 C
ATOM 800 O HIS C 182 104.649 161.107 185.108 1.00 64.81 O
ATOM 801 CB HIS C 182 102.771 158.982 186.033 1.00 64.81 C
ATOM 802 CG HIS C 182 101.452 158.277 186.055 1.00 64.81 C
ATOM 803 ND1 HIS C 182 101.268 157.064 186.680 1.00 64.81 N
ATOM 804 CD2 HIS C 182 100.251 158.620 185.536 1.00 64.81 C
ATOM 805 CE1 HIS C 182 100.009 156.686 186.542 1.00 64.81 C
ATOM 806 NE2 HIS C 182 99.371 157.613 185.851 1.00 64.81 N
ATOM 807 N SER C 183 105.803 159.299 184.445 1.00 65.46 N
ATOM 808 CA SER C 183 107.112 159.917 184.648 1.00 65.46 C
ATOM 809 C SER C 183 107.370 160.166 186.134 1.00 65.46 C
ATOM 810 O SER C 183 107.702 161.276 186.548 1.00 65.46 O
ATOM 811 CB SER C 183 107.239 161.213 183.847 1.00 65.46 C
ATOM 812 OG SER C 183 107.068 160.976 182.464 1.00 65.46 O
ATOM 813 N GLN C 184 107.211 159.116 186.942 1.00 70.92 N
ATOM 814 CA GLN C 184 107.312 159.254 188.394 1.00 70.92 C
ATOM 815 C GLN C 184 107.872 157.957 188.970 1.00 70.92 C
ATOM 816 O GLN C 184 107.126 156.993 189.159 1.00 70.92 O
ATOM 817 CB GLN C 184 105.955 159.577 189.001 1.00 70.92 C
ATOM 818 CG GLN C 184 105.322 160.841 188.478 1.00 70.92 C
ATOM 819 CD GLN C 184 104.047 161.181 189.212 1.00 70.92 C
ATOM 820 OE1 GLN C 184 103.469 160.336 189.894 1.00 70.92 O
ATOM 821 NE2 GLN C 184 103.602 162.424 189.082 1.00 70.92 N
ATOM 822 N CYS C 185 109.170 157.944 189.261 1.00 74.83 N
ATOM 823 CA CYS C 185 109.731 156.830 190.007 1.00 74.83 C
ATOM 824 C CYS C 185 109.139 156.804 191.414 1.00 74.83 C
ATOM 825 O CYS C 185 108.426 157.716 191.835 1.00 74.83 O
ATOM 826 CB CYS C 185 111.254 156.931 190.075 1.00 74.83 C
ATOM 827 SG CYS C 185 112.084 157.055 188.477 1.00 74.83 S
ATOM 828 N TYR C 186 109.436 155.737 192.143 1.00 85.13 N
ATOM 829 CA TYR C 186 109.057 155.659 193.544 1.00 85.13 C
ATOM 830 C TYR C 186 110.225 156.070 194.435 1.00 85.13 C
ATOM 831 O TYR C 186 111.344 156.304 193.975 1.00 85.13 O

ATOM 832 CB TYR C 186 108.576 154.254 193.900 1.00 85.13 C
ATOM 833 CG TYR C 186 107.208 153.930 193.358 1.00 85.13 C
ATOM 834 CD1 TYR C 186 106.351 154.936 192.941 1.00 85.13 C
ATOM 835 CD2 TYR C 186 106.773 152.617 193.259 1.00 85.13 C
ATOM 836 CE1 TYR C 186 105.100 154.645 192.446 1.00 85.13 C
ATOM 837 CE2 TYR C 186 105.525 152.316 192.762 1.00 85.13 C
ATOM 838 CZ TYR C 186 104.692 153.333 192.357 1.00 85.13 C
ATOM 839 OH TYR C 186 103.445 153.034 191.860 1.00 85.13 O
ATOM 840 N SER C 187 109.951 156.154 195.732 1.00 95.73 N
ATOM 841 CA SER C 187 110.917 156.628 196.713 1.00 95.73 C
ATOM 842 C SER C 187 111.186 155.573 197.777 1.00 95.73 C
ATOM 843 O SER C 187 111.253 155.874 198.969 1.00 95.73 O
ATOM 844 CB SER C 187 110.437 157.925 197.358 1.00 95.73 C
ATOM 845 OG SER C 187 109.133 157.774 197.887 1.00 95.73 O
ATOM 846 N SER C 188 111.342 154.318 197.362 1.00 98.36 N
ATOM 847 CA SER C 188 111.640 153.253 198.308 1.00 98.36 C
ATOM 848 C SER C 188 112.061 152.005 197.547 1.00 98.36 C
ATOM 849 O SER C 188 111.542 151.727 196.464 1.00 98.36 O
ATOM 850 CB SER C 188 110.437 152.944 199.201 1.00 98.36 C
ATOM 851 OG SER C 188 109.340 152.490 198.431 1.00 98.36 O
ATOM 852 N TYR C 189 112.994 151.260 198.130 1.00 99.21 N
ATOM 853 CA TYR C 189 113.531 150.048 197.535 1.00 99.21 C
ATOM 854 C TYR C 189 113.239 148.853 198.432 1.00 99.21 C
ATOM 855 O TYR C 189 112.908 148.998 199.611 1.00 99.21 O
ATOM 856 CB TYR C 189 115.040 150.172 197.301 1.00 99.21 C
ATOM 857 CG TYR C 189 115.583 149.158 196.332 1.00 99.21 C
ATOM 858 CD1 TYR C 189 114.810 148.702 195.278 1.00 99.21 C
ATOM 859 CD2 TYR C 189 116.866 148.659 196.465 1.00 99.21 C
ATOM 860 CE1 TYR C 189 115.295 147.777 194.389 1.00 99.21 C
ATOM 861 CE2 TYR C 189 117.362 147.733 195.577 1.00 99.21 C
ATOM 862 CZ TYR C 189 116.572 147.296 194.542 1.00 99.21 C
ATOM 863 OH TYR C 189 117.054 146.372 193.651 1.00 99.21 O
ATOM 864 N SER C 190 113.368 147.658 197.857 1.00110.74 N
ATOM 865 CA SER C 190 113.095 146.432 198.601 1.00110.74 C

```
ATOM   866  C   SER C 190    113.879 145.300 197.952  1.00110.74          C
ATOM   867  O   SER C 190    113.530 144.859 196.853  1.00110.74          O
ATOM   868  CB  SER C 190    111.602 146.130 198.614  1.00110.74          C
ATOM   869  OG  SER C 190    110.884 147.148 199.290  1.00110.74          O
ATOM   870  N   ARG C 191    114.925 144.836 198.626  1.00119.08          N
ATOM   871  CA  ARG C 191    115.756 143.749 198.139  1.00119.08          C
ATOM   872  C   ARG C 191    115.418 142.460 198.882  1.00119.08          C
ATOM   873  O   ARG C 191    114.555 142.422 199.761  1.00119.08          O
ATOM   874  CB  ARG C 191    117.237 144.096 198.298  1.00119.08          C
ATOM   875  CG  ARG C 191    117.665 144.289 199.743  1.00119.08          C
ATOM   876  CD  ARG C 191    119.177 144.301 199.887  1.00119.08          C
ATOM   877  NE  ARG C 191    119.794 145.461 199.253  1.00119.08          N
ATOM   878  CZ  ARG C 191    120.559 145.401 198.168  1.00119.08          C
ATOM   879  NH1 ARG C 191    120.799 144.234 197.589  1.00119.08          N
ATOM   880  NH2 ARG C 191    121.083 146.508 197.662  1.00119.08          N
ATOM   881  N   VAL C 192    116.111 141.384 198.513  1.00133.53          N
ATOM   882  CA  VAL C 192    116.006 140.105 199.209  1.00133.53          C
ATOM   883  C   VAL C 192    117.256 139.291 198.905  1.00133.53          C
ATOM   884  O   VAL C 192    117.646 139.152 197.741  1.00133.53          O
ATOM   885  CB  VAL C 192    114.731 139.347 198.797  1.00133.53          C
ATOM   886  CG1 VAL C 192    114.800 138.950 197.332  1.00133.53          C
ATOM   887  CG2 VAL C 192    114.535 138.121 199.669  1.00133.53          C
ATOM   888  N   ILE C 193    117.892 138.739 199.938  1.00140.69          N
ATOM   889  CA  ILE C 193    119.130 137.976 199.777  1.00140.69          C
ATOM   890  C   ILE C 193    118.921 136.607 200.422  1.00140.69          C
ATOM   891  O   ILE C 193    119.255 136.387 201.590  1.00140.69          O
ATOM   892  CB  ILE C 193    120.346 138.694 200.373  1.00140.69          C
ATOM   893  CG1 ILE C 193    121.624 137.905 200.089  1.00140.69          C
ATOM   894  CG2 ILE C 193    120.153 138.950 201.866  1.00140.69          C
ATOM   895  CD1 ILE C 193    121.910 137.726 198.616  1.00140.69          C
ATOM   896  N   ALA C 194    118.359 135.676 199.654  1.00143.94          N
ATOM   897  CA  ALA C 194    118.420 134.240 199.904  1.00143.94          C
ATOM   898  C   ALA C 194    117.736 133.796 201.192  1.00143.94          C
ATOM   899  O   ALA C 194    117.534 132.595 201.397  1.00143.94          O
```

```
ATOM   900  CB  ALA C 194     119.880 133.780 199.920  1.00143.94          C
ATOM   901  N   GLY C 195     117.370 134.731 202.067  1.00142.34          N
ATOM   902  CA  GLY C 195     116.588 134.349 203.226  1.00142.34          C
ATOM   903  C   GLY C 195     115.619 135.388 203.748  1.00142.34          C
ATOM   904  O   GLY C 195     114.860 135.111 204.682  1.00142.34          O
ATOM   905  N   THR C 196     115.622 136.581 203.157  1.00139.01          N
ATOM   906  CA  THR C 196     114.791 137.661 203.673  1.00139.01          C
ATOM   907  C   THR C 196     114.969 138.938 202.862  1.00139.01          C
ATOM   908  O   THR C 196     115.835 139.011 201.985  1.00139.01          O
ATOM   909  CB  THR C 196     115.111 137.931 205.146  1.00139.01          C
ATOM   910  OG1 THR C 196     114.161 138.861 205.681  1.00139.01          O
ATOM   911  CG2 THR C 196     116.512 138.506 205.289  1.00139.01          C
ATOM   912  N   VAL C 197     114.164 139.952 203.165  1.00131.92          N
ATOM   913  CA  VAL C 197     114.226 141.248 202.500  1.00131.92          C
ATOM   914  C   VAL C 197     114.937 142.228 203.422  1.00131.92          C
ATOM   915  O   VAL C 197     114.668 142.263 204.629  1.00131.92          O
ATOM   916  CB  VAL C 197     112.822 141.759 202.134  1.00131.92          C
ATOM   917  CG1 VAL C 197     112.841 143.264 201.918  1.00131.92          C
ATOM   918  CG2 VAL C 197     112.300 141.039 200.898  1.00131.92          C
ATOM   919  N   PHE C 198     115.845 143.017 202.857  1.00127.80          N
ATOM   920  CA  PHE C 198     116.513 144.103 203.567  1.00127.80          C
ATOM   921  C   PHE C 198     116.030 145.400 202.924  1.00127.80          C
ATOM   922  O   PHE C 198     116.661 145.934 202.010  1.00127.80          O
ATOM   923  CB  PHE C 198     118.033 143.963 203.506  1.00127.80          C
ATOM   924  CG  PHE C 198     118.742 144.517 204.711  1.00127.80          C
ATOM   925  CD1 PHE C 198     118.490 144.010 205.975  1.00127.80          C
ATOM   926  CD2 PHE C 198     119.657 145.548 204.579  1.00127.80          C
ATOM   927  CE1 PHE C 198     119.137 144.520 207.083  1.00127.80          C
ATOM   928  CE2 PHE C 198     120.309 146.061 205.684  1.00127.80          C
ATOM   929  CZ  PHE C 198     120.048 145.545 206.938  1.00127.80          C
ATOM   930  N   VAL C 199     114.901 145.905 203.415  1.00120.26          N
ATOM   931  CA  VAL C 199     114.233 147.047 202.800  1.00120.26          C
ATOM   932  C   VAL C 199     115.080 148.294 203.034  1.00120.26          C
ATOM   933  O   VAL C 199     115.191 148.780 204.162  1.00120.26          O
```

ATOM 934 CB VAL C 199 112.812 147.226 203.347 1.00120.26 C
ATOM 935 CG1 VAL C 199 112.831 147.285 204.866 1.00120.26 C
ATOM 936 CG2 VAL C 199 112.178 148.482 202.769 1.00120.26 C
ATOM 937 N ALA C 200 115.680 148.811 201.968 1.00114.44 N
ATOM 938 CA ALA C 200 116.411 150.064 202.024 1.00114.44 C
ATOM 939 C ALA C 200 115.436 151.219 201.802 1.00114.44 C
ATOM 940 O ALA C 200 114.217 151.035 201.777 1.00114.44 O
ATOM 941 CB ALA C 200 117.548 150.060 201.004 1.00114.44 C
ATOM 942 N TYR C 201 115.964 152.425 201.636 1.00110.29 N
ATOM 943 CA TYR C 201 115.127 153.608 201.501 1.00110.29 C
ATOM 944 C TYR C 201 115.935 154.700 200.806 1.00110.29 C
ATOM 945 O TYR C 201 117.002 154.434 200.241 1.00110.29 O
ATOM 946 CB TYR C 201 114.616 154.066 202.878 1.00110.29 C
ATOM 947 CG TYR C 201 113.310 153.443 203.317 1.00110.29 C
ATOM 948 CD1 TYR C 201 112.097 153.970 202.900 1.00110.29 C
ATOM 949 CD2 TYR C 201 113.291 152.346 204.165 1.00110.29 C
ATOM 950 CE1 TYR C 201 110.901 153.410 203.303 1.00110.29 C
ATOM 951 CE2 TYR C 201 112.100 151.779 204.572 1.00110.29 C
ATOM 952 CZ TYR C 201 110.907 152.316 204.139 1.00110.29 C
ATOM 953 OH TYR C 201 109.718 151.755 204.542 1.00110.29 O
ATOM 954 N HIS C 202 115.420 155.925 200.856 1.00107.29 N
ATOM 955 CA HIS C 202 116.190 157.133 200.594 1.00107.29 C
ATOM 956 C HIS C 202 117.029 157.383 201.838 1.00107.29 C
ATOM 957 O HIS C 202 117.269 156.451 202.613 1.00107.29 O
ATOM 958 CB HIS C 202 115.280 158.323 200.281 1.00107.29 C
ATOM 959 CG HIS C 202 115.914 159.355 199.400 1.00107.29 C
ATOM 960 ND1 HIS C 202 117.030 160.073 199.776 1.00107.29 N
ATOM 961 CD2 HIS C 202 115.587 159.795 198.161 1.00107.29 C
ATOM 962 CE1 HIS C 202 117.365 160.906 198.808 1.00107.29 C
ATOM 963 NE2 HIS C 202 116.506 160.758 197.817 1.00107.29 N
ATOM 964 N ARG C 203 117.505 158.606 202.049 1.00112.17 N
ATOM 965 CA ARG C 203 118.351 158.824 203.214 1.00112.17 C
ATOM 966 C ARG C 203 117.516 158.659 204.481 1.00112.17 C
ATOM 967 O ARG C 203 117.283 159.620 205.222 1.00112.17 O

ATOM 968 CB ARG C 203 118.993 160.211 203.168 1.00112.17 C
ATOM 969 CG ARG C 203 120.106 160.407 204.181 1.00112.17 C
ATOM 970 CD ARG C 203 120.424 161.884 204.345 1.00112.17 C
ATOM 971 NE ARG C 203 121.795 162.111 204.787 1.00112.17 N
ATOM 972 CZ ARG C 203 122.813 162.314 203.959 1.00112.17 C
ATOM 973 NH1 ARG C 203 122.612 162.305 202.649 1.00112.17 N
ATOM 974 NH2 ARG C 203 124.034 162.516 204.436 1.00112.17 N
ATOM 975 N ASP C 204 117.062 157.424 204.716 1.00118.90 N
ATOM 976 CA ASP C 204 116.348 156.987 205.912 1.00118.90 C
ATOM 977 C ASP C 204 115.263 157.963 206.359 1.00118.90 C
ATOM 978 O ASP C 204 115.075 158.190 207.559 1.00118.90 O
ATOM 979 CB ASP C 204 117.368 156.723 207.021 1.00118.90 C
ATOM 980 CG ASP C 204 118.346 155.631 206.646 1.00118.90 C
ATOM 981 OD1 ASP C 204 118.480 155.369 205.435 1.00118.90 O
ATOM 982 OD2 ASP C 204 118.938 154.996 207.541 1.00118.90 O
ATOM 983 N SER C 205 114.511 158.496 205.392 1.00120.40 N
ATOM 984 CA SER C 205 113.374 159.376 205.633 1.00120.40 C
ATOM 985 C SER C 205 112.058 158.624 205.755 1.00120.40 C
ATOM 986 O SER C 205 111.019 159.251 205.991 1.00120.40 O
ATOM 987 CB SER C 205 113.253 160.408 204.506 1.00120.40 C
ATOM 988 OG SER C 205 114.311 161.347 204.527 1.00120.40 O
ATOM 989 N TYR C 206 112.066 157.308 205.551 1.00121.88 N
ATOM 990 CA TYR C 206 110.899 156.468 205.816 1.00121.88 C
ATOM 991 C TYR C 206 109.688 156.899 204.991 1.00121.88 C
ATOM 992 O TYR C 206 108.544 156.596 205.338 1.00121.88 O
ATOM 993 CB TYR C 206 110.558 156.463 207.308 1.00121.88 C
ATOM 994 CG TYR C 206 111.701 156.033 208.208 1.00121.88 C
ATOM 995 CD1 TYR C 206 112.860 155.476 207.682 1.00121.88 C
ATOM 996 CD2 TYR C 206 111.614 156.178 209.586 1.00121.88 C
ATOM 997 CE1 TYR C 206 113.901 155.083 208.498 1.00121.88 C
ATOM 998 CE2 TYR C 206 112.651 155.785 210.411 1.00121.88 C
ATOM 999 CZ TYR C 206 113.790 155.238 209.862 1.00121.88 C
ATOM 1000 OH TYR C 206 114.822 154.847 210.683 1.00121.88 O
ATOM 1001 N GLU C 207 109.925 157.599 203.884 1.00114.22 N

```
ATOM   1002  CA  GLU C 207     108.859 158.144 203.058  1.00114.22           C
ATOM   1003  C   GLU C 207     108.753 157.378 201.745  1.00114.22           C
ATOM   1004  O   GLU C 207     109.755 156.917 201.190  1.00114.22           O
ATOM   1005  CB  GLU C 207     109.089 159.631 202.776  1.00114.22           C
ATOM   1006  CG  GLU C 207     108.718 160.525 203.940  1.00114.22           C
ATOM   1007  CD  GLU C 207     107.343 160.210 204.486  1.00114.22           C
ATOM   1008  OE1 GLU C 207     106.472 159.795 203.694  1.00114.22           O
ATOM   1009  OE2 GLU C 207     107.137 160.367 205.707  1.00114.22           O
ATOM   1010  N   ASN C 208     107.525 157.250 201.250  1.00103.12           N
ATOM   1011  CA  ASN C 208     107.245 156.514 200.020  1.00103.12           C
ATOM   1012  C   ASN C 208     106.324 157.325 199.115  1.00103.12           C
ATOM   1013  O   ASN C 208     105.307 156.837 198.622  1.00103.12           O
ATOM   1014  CB  ASN C 208     106.641 155.147 200.324  1.00103.12           C
ATOM   1015  CG  ASN C 208     106.662 154.225 199.123  1.00103.12           C
ATOM   1016  OD1 ASN C 208     105.896 154.400 198.177  1.00103.12           O
ATOM   1017  ND2 ASN C 208     107.530 153.225 199.163  1.00103.12           N
ATOM   1018  N   LYS C 209     106.671 158.586 198.894  1.00 96.60           N
ATOM   1019  CA  LYS C 209     105.915 159.438 197.992  1.00 96.60           C
ATOM   1020  C   LYS C 209     106.497 159.318 196.584  1.00 96.60           C
ATOM   1021  O   LYS C 209     107.327 158.451 196.304  1.00 96.60           O
ATOM   1022  CB  LYS C 209     105.913 160.878 198.501  1.00 96.60           C
ATOM   1023  CG  LYS C 209     105.910 161.001 200.016  1.00 96.60           C
ATOM   1024  CD  LYS C 209     104.813 160.150 200.642  1.00 96.60           C
ATOM   1025  CE  LYS C 209     103.432 160.570 200.163  1.00 96.60           C
ATOM   1026  NZ  LYS C 209     102.353 160.031 201.036  1.00 96.60           N
ATOM   1027  N   THR C 210     106.065 160.191 195.682  1.00 84.89           N
ATOM   1028  CA  THR C 210     106.486 160.148 194.291  1.00 84.89           C
ATOM   1029  C   THR C 210     107.528 161.224 194.006  1.00 84.89           C
ATOM   1030  O   THR C 210     107.837 162.070 194.848  1.00 84.89           O
ATOM   1031  CB  THR C 210     105.281 160.318 193.364  1.00 84.89           C
ATOM   1032  OG1 THR C 210     104.688 161.604 193.583  1.00 84.89           O
ATOM   1033  CG2 THR C 210     104.249 159.241 193.639  1.00 84.89           C
ATOM   1034  N   MET C 211     108.072 161.181 192.791  1.00 80.27           N
ATOM   1035  CA  MET C 211     109.086 162.139 192.370  1.00 80.27           C
```

ATOM 1036 C MET C 211 108.828 162.608 190.944 1.00 80.27 C
ATOM 1037 O MET C 211 107.765 162.339 190.379 1.00 80.27 O
ATOM 1038 CB MET C 211 110.478 161.520 192.477 1.00 80.27 C
ATOM 1039 CG MET C 211 110.815 160.984 193.854 1.00 80.27 C
ATOM 1040 SD MET C 211 111.627 162.200 194.904 1.00 80.27 S
ATOM 1041 CE MET C 211 112.518 161.126 196.025 1.00 80.27 C
ATOM 1042 N GLN C 212 109.790 163.316 190.358 1.00 71.09 N
ATOM 1043 CA GLN C 212 109.716 163.742 188.969 1.00 71.09 C
ATOM 1044 C GLN C 212 111.072 163.515 188.319 1.00 71.09 C
ATOM 1045 O GLN C 212 112.008 163.015 188.946 1.00 71.09 O
ATOM 1046 CB GLN C 212 109.304 165.212 188.847 1.00 71.09 C
ATOM 1047 CG GLN C 212 107.896 165.501 189.316 1.00 71.09 C
ATOM 1048 CD GLN C 212 106.854 164.790 188.487 1.00 71.09 C
ATOM 1049 OE1 GLN C 212 106.193 163.864 188.956 1.00 71.09 O
ATOM 1050 NE2 GLN C 212 106.701 165.218 187.241 1.00 71.09 N
ATOM 1051 N LEU C 213 111.176 163.883 187.046 1.00 58.95 N
ATOM 1052 CA LEU C 213 112.412 163.730 186.297 1.00 58.95 C
ATOM 1053 C LEU C 213 112.777 165.043 185.617 1.00 58.95 C
ATOM 1054 O LEU C 213 111.908 165.864 185.315 1.00 58.95 O
ATOM 1055 CB LEU C 213 112.291 162.603 185.269 1.00 58.95 C
ATOM 1056 CG LEU C 213 112.161 161.203 185.870 1.00 58.95 C
ATOM 1057 CD1 LEU C 213 110.718 160.897 186.198 1.00 58.95 C
ATOM 1058 CD2 LEU C 213 112.719 160.159 184.934 1.00 58.95 C
ATOM 1059 N MET C 214 114.080 165.242 185.390 1.00 58.72 N
ATOM 1060 CA MET C 214 114.616 166.485 184.843 1.00 58.72 C
ATOM 1061 C MET C 214 115.964 166.229 184.183 1.00 58.72 C
ATOM 1062 O MET C 214 116.736 165.398 184.679 1.00 58.72 O
ATOM 1063 CB MET C 214 114.773 167.549 185.933 1.00 58.72 C
ATOM 1064 CG MET C 214 113.627 167.601 186.930 1.00 58.72 C
ATOM 1065 SD MET C 214 114.041 168.442 188.469 1.00 58.72 S
ATOM 1066 CE MET C 214 115.449 167.486 189.016 1.00 58.72 C
ATOM 1067 N PRO C 215 116.281 166.923 183.092 1.00 51.70 N
ATOM 1068 CA PRO C 215 117.527 166.637 182.364 1.00 51.70 C
ATOM 1069 C PRO C 215 118.752 166.806 183.251 1.00 51.70 C

ATOM 1070 O PRO C 215 118.787 167.675 184.123 1.00 51.70 O
ATOM 1071 CB PRO C 215 117.511 167.659 181.224 1.00 51.70 C
ATOM 1072 CG PRO C 215 116.073 168.060 181.092 1.00 51.70 C
ATOM 1073 CD PRO C 215 115.510 168.007 182.471 1.00 51.70 C
ATOM 1074 N ASP C 216 119.762 165.957 183.033 1.00 56.42 N
ATOM 1075 CA ASP C 216 120.862 165.853 184.002 1.00 56.42 C
ATOM 1076 C ASP C 216 122.005 166.846 183.784 1.00 56.42 C
ATOM 1077 O ASP C 216 122.064 167.882 184.452 1.00 56.42 O
ATOM 1078 CB ASP C 216 121.393 164.420 183.981 1.00 56.42 C
ATOM 1079 CG ASP C 216 122.192 164.076 185.213 1.00 56.42 C
ATOM 1080 OD1 ASP C 216 121.576 163.730 186.240 1.00 56.42 O
ATOM 1081 OD2 ASP C 216 123.435 164.143 185.151 1.00 56.42 O
ATOM 1082 N CYS C 217 122.917 166.554 182.849 1.00 62.32 N
ATOM 1083 CA CYS C 217 123.993 167.504 182.565 1.00 62.32 C
ATOM 1084 C CYS C 217 124.521 167.505 181.132 1.00 62.32 C
ATOM 1085 O CYS C 217 125.116 168.498 180.702 1.00 62.32 O
ATOM 1086 CB CYS C 217 125.185 167.260 183.505 1.00 62.32 C
ATOM 1087 SG CYS C 217 125.252 168.254 185.033 1.00 62.32 S
ATOM 1088 N TYR C 218 124.321 166.426 180.380 1.00 57.21 N
ATOM 1089 CA TYR C 218 125.198 166.144 179.238 1.00 57.21 C
ATOM 1090 C TYR C 218 124.415 165.740 177.995 1.00 57.21 C
ATOM 1091 O TYR C 218 124.694 164.720 177.366 1.00 57.21 O
ATOM 1092 CB TYR C 218 126.211 165.055 179.584 1.00 57.21 C
ATOM 1093 CG TYR C 218 126.856 165.190 180.940 1.00 57.21 C
ATOM 1094 CD1 TYR C 218 127.914 166.058 181.142 1.00 57.21 C
ATOM 1095 CD2 TYR C 218 126.417 164.435 182.014 1.00 57.21 C
ATOM 1096 CE1 TYR C 218 128.510 166.177 182.379 1.00 57.21 C
ATOM 1097 CE2 TYR C 218 127.009 164.547 183.255 1.00 57.21 C
ATOM 1098 CZ TYR C 218 128.052 165.420 183.431 1.00 57.21 C
ATOM 1099 OH TYR C 218 128.642 165.536 184.666 1.00 57.21 O
ATOM 1100 N SER C 219 123.423 166.535 177.614 1.00 52.64 N
ATOM 1101 CA SER C 219 122.701 166.248 176.384 1.00 52.64 C
ATOM 1102 C SER C 219 123.656 166.207 175.197 1.00 52.64 C
ATOM 1103 O SER C 219 124.652 166.931 175.146 1.00 52.64 O

ATOM 1104 CB SER C 219 121.611 167.294 176.151 1.00 52.64 C
ATOM 1105 OG SER C 219 120.828 167.479 177.316 1.00 52.64 O
ATOM 1106 N ASN C 220 123.350 165.332 174.245 1.00 48.68 N
ATOM 1107 CA ASN C 220 124.031 165.220 172.961 1.00 48.68 C
ATOM 1108 C ASN C 220 122.991 165.220 171.847 1.00 48.68 C
ATOM 1109 O ASN C 220 121.814 165.520 172.061 1.00 48.68 O
ATOM 1110 CB ASN C 220 124.892 163.956 172.877 1.00 48.68 C
ATOM 1111 CG ASN C 220 126.118 164.023 173.743 1.00 48.68 C
ATOM 1112 OD1 ASN C 220 126.262 163.263 174.699 1.00 48.68 O
ATOM 1113 ND2 ASN C 220 127.027 164.924 173.405 1.00 48.68 N
ATOM 1114 N THR C 221 123.444 164.883 170.641 1.00 48.07 N
ATOM 1115 CA THR C 221 122.521 164.686 169.531 1.00 48.07 C
ATOM 1116 C THR C 221 121.830 163.331 169.630 1.00 48.07 C
ATOM 1117 O THR C 221 120.688 163.169 169.184 1.00 48.07 O
ATOM 1118 CB THR C 221 123.265 164.809 168.204 1.00 48.07 C
ATOM 1119 OG1 THR C 221 123.887 166.095 168.120 1.00 48.07 O
ATOM 1120 CG2 THR C 221 122.302 164.649 167.046 1.00 48.07 C
ATOM 1121 N HIS C 222 122.508 162.342 170.208 1.00 47.92 N
ATOM 1122 CA HIS C 222 122.018 160.967 170.239 1.00 47.92 C
ATOM 1123 C HIS C 222 122.034 160.408 171.661 1.00 47.92 C
ATOM 1124 O HIS C 222 122.222 159.211 171.876 1.00 47.92 O
ATOM 1125 CB HIS C 222 122.854 160.066 169.330 1.00 47.92 C
ATOM 1126 CG HIS C 222 122.969 160.552 167.919 1.00 47.92 C
ATOM 1127 ND1 HIS C 222 123.991 161.372 167.497 1.00 47.92 N
ATOM 1128 CD2 HIS C 222 122.209 160.308 166.826 1.00 47.92 C
ATOM 1129 CE1 HIS C 222 123.848 161.626 166.209 1.00 47.92 C
ATOM 1130 NE2 HIS C 222 122.773 160.991 165.778 1.00 47.92 N
ATOM 1131 N SER C 223 121.849 161.268 172.663 1.00 46.80 N
ATOM 1132 CA SER C 223 121.873 160.800 174.050 1.00 46.80 C
ATOM 1133 C SER C 223 121.240 161.863 174.942 1.00 46.80 C
ATOM 1134 O SER C 223 121.663 163.020 174.927 1.00 46.80 O
ATOM 1135 CB SER C 223 123.291 160.481 174.496 1.00 46.80 C
ATOM 1136 OG SER C 223 123.952 159.658 173.552 1.00 46.80 O
ATOM 1137 N THR C 224 120.232 161.463 175.709 1.00 44.17 N

ATOM 1138 CA THR C 224 119.623 162.305 176.726 1.00 44.17 C
ATOM 1139 C THR C 224 119.373 161.475 177.976 1.00 44.17 C
ATOM 1140 O THR C 224 119.114 160.273 177.894 1.00 44.17 O
ATOM 1141 CB THR C 224 118.313 162.914 176.229 1.00 44.17 C
ATOM 1142 OG1 THR C 224 118.544 163.597 174.992 1.00 44.17 O
ATOM 1143 CG2 THR C 224 117.767 163.896 177.241 1.00 44.17 C
ATOM 1144 N ARG C 225 119.451 162.116 179.138 1.00 46.82 N
ATOM 1145 CA ARG C 225 119.271 161.417 180.400 1.00 46.82 C
ATOM 1146 C ARG C 225 118.330 162.203 181.297 1.00 46.82 C
ATOM 1147 O ARG C 225 118.222 163.425 181.186 1.00 46.82 O
ATOM 1148 CB ARG C 225 120.603 161.190 181.118 1.00 46.82 C
ATOM 1149 CG ARG C 225 120.460 160.456 182.434 1.00 46.82 C
ATOM 1150 CD ARG C 225 121.752 159.784 182.841 1.00 46.82 C
ATOM 1151 NE ARG C 225 122.660 160.713 183.501 1.00 46.82 N
ATOM 1152 CZ ARG C 225 123.746 160.343 184.167 1.00 46.82 C
ATOM 1153 NH1 ARG C 225 124.518 161.254 184.739 1.00 46.82 N
ATOM 1154 NH2 ARG C 225 124.061 159.059 184.262 1.00 46.82 N
ATOM 1155 N TYR C 226 117.647 161.489 182.189 1.00 47.52 N
ATOM 1156 CA TYR C 226 116.697 162.097 183.108 1.00 47.52 C
ATOM 1157 C TYR C 226 116.877 161.487 184.488 1.00 47.52 C
ATOM 1158 O TYR C 226 116.885 160.262 184.626 1.00 47.52 O
ATOM 1159 CB TYR C 226 115.259 161.899 182.627 1.00 47.52 C
ATOM 1160 CG TYR C 226 114.981 162.499 181.272 1.00 47.52 C
ATOM 1161 CD1 TYR C 226 115.335 161.838 180.111 1.00 47.52 C
ATOM 1162 CD2 TYR C 226 114.354 163.725 181.155 1.00 47.52 C
ATOM 1163 CE1 TYR C 226 115.079 162.381 178.876 1.00 47.52 C
ATOM 1164 CE2 TYR C 226 114.094 164.275 179.925 1.00 47.52 C
ATOM 1165 CZ TYR C 226 114.459 163.600 178.789 1.00 47.52 C
ATOM 1166 OH TYR C 226 114.202 164.148 177.558 1.00 47.52 O
ATOM 1167 N VAL C 227 117.011 162.338 185.504 1.00 51.82 N
ATOM 1168 CA VAL C 227 117.271 161.901 186.869 1.00 51.82 C
ATOM 1169 C VAL C 227 116.312 162.616 187.806 1.00 51.82 C
ATOM 1170 O VAL C 227 115.827 163.710 187.509 1.00 51.82 O
ATOM 1171 CB VAL C 227 118.726 162.174 187.285 1.00 51.82 C

ATOM 1172 CG1 VAL C 227 119.675 161.616 186.252 1.00 51.82 C
ATOM 1173 CG2 VAL C 227 118.941 163.655 187.454 1.00 51.82 C
ATOM 1174 N THR C 228 116.045 161.995 188.952 1.00 59.73 N
ATOM 1175 CA THR C 228 115.063 162.528 189.886 1.00 59.73 C
ATOM 1176 C THR C 228 115.670 163.390 190.985 1.00 59.73 C
ATOM 1177 O THR C 228 114.933 164.121 191.654 1.00 59.73 O
ATOM 1178 CB THR C 228 114.266 161.390 190.526 1.00 59.73 C
ATOM 1179 OG1 THR C 228 113.079 161.917 191.128 1.00 59.73 O
ATOM 1180 CG2 THR C 228 115.093 160.703 191.587 1.00 59.73 C
ATOM 1181 N VAL C 229 116.983 163.327 191.191 1.00 68.98 N
ATOM 1182 CA VAL C 229 117.667 164.121 192.214 1.00 68.98 C
ATOM 1183 C VAL C 229 118.966 164.623 191.589 1.00 68.98 C
ATOM 1184 O VAL C 229 119.953 163.889 191.496 1.00 68.98 O
ATOM 1185 CB VAL C 229 117.941 163.327 193.493 1.00 68.98 C
ATOM 1186 CG1 VAL C 229 118.769 164.154 194.450 1.00 68.98 C
ATOM 1187 CG2 VAL C 229 116.640 162.916 194.143 1.00 68.98 C
ATOM 1188 N LYS C 230 118.978 165.887 191.169 1.00 82.59 N
ATOM 1189 CA LYS C 230 120.168 166.438 190.530 1.00 82.59 C
ATOM 1190 C LYS C 230 121.210 166.847 191.563 1.00 82.59 C
ATOM 1191 O LYS C 230 122.344 166.360 191.534 1.00 82.59 O
ATOM 1192 CB LYS C 230 119.790 167.626 189.646 1.00 82.59 C
ATOM 1193 CG LYS C 230 120.856 168.003 188.628 1.00 82.59 C
ATOM 1194 CD LYS C 230 120.453 169.237 187.843 1.00 82.59 C
ATOM 1195 CE LYS C 230 118.961 169.238 187.566 1.00 82.59 C
ATOM 1196 NZ LYS C 230 118.529 170.475 186.864 1.00 82.59 N
ATOM 1197 N ASP C 231 120.844 167.737 192.480 1.00 97.30 N
ATOM 1198 CA ASP C 231 121.756 168.127 193.543 1.00 97.30 C
ATOM 1199 C ASP C 231 121.966 166.957 194.501 1.00 97.30 C
ATOM 1200 O ASP C 231 121.365 165.888 194.367 1.00 97.30 O
ATOM 1201 CB ASP C 231 121.220 169.350 194.285 1.00 97.30 C
ATOM 1202 CG ASP C 231 119.915 169.070 195.001 1.00 97.30 C
ATOM 1203 OD1 ASP C 231 119.950 168.451 196.085 1.00 97.30 O
ATOM 1204 OD2 ASP C 231 118.851 169.470 194.482 1.00 97.30 O
ATOM 1205 N GLN C 232 122.833 167.161 195.483 1.00106.92 N

ATOM 1206 CA GLN C 232 123.129 166.153 196.488 1.00106.92 C
ATOM 1207 C GLN C 232 122.764 166.687 197.870 1.00106.92 C
ATOM 1208 O GLN C 232 122.517 167.881 198.058 1.00106.92 O
ATOM 1209 CB GLN C 232 124.599 165.736 196.426 1.00106.92 C
ATOM 1210 CG GLN C 232 124.916 164.775 195.296 1.00106.92 C
ATOM 1211 CD GLN C 232 124.913 165.451 193.941 1.00106.92 C
ATOM 1212 OE1 GLN C 232 124.656 166.649 193.834 1.00106.92 O
ATOM 1213 NE2 GLN C 232 125.203 164.685 192.896 1.00106.92 N
ATOM 1214 N TRP C 233 122.745 165.784 198.846 1.00116.94 N
ATOM 1215 CA TRP C 233 122.321 166.112 200.199 1.00116.94 C
ATOM 1216 C TRP C 233 123.351 165.579 201.182 1.00116.94 C
ATOM 1217 O TRP C 233 123.688 164.393 201.148 1.00116.94 O
ATOM 1218 CB TRP C 233 120.938 165.520 200.496 1.00116.94 C
ATOM 1219 CG TRP C 233 120.517 165.629 201.927 1.00116.94 C
ATOM 1220 CD1 TRP C 233 120.857 164.790 202.948 1.00116.94 C
ATOM 1221 CD2 TRP C 233 119.662 166.627 202.497 1.00116.94 C
ATOM 1222 NE1 TRP C 233 120.274 165.209 204.119 1.00116.94 N
ATOM 1223 CE2 TRP C 233 119.535 166.334 203.869 1.00116.94 C
ATOM 1224 CE3 TRP C 233 118.996 167.741 201.981 1.00116.94 C
ATOM 1225 CZ2 TRP C 233 118.769 167.115 204.731 1.00116.94 C
ATOM 1226 CZ3 TRP C 233 118.236 168.515 202.838 1.00116.94 C
ATOM 1227 CH2 TRP C 233 118.128 168.198 204.197 1.00116.94 C
ATOM 1228 N HIS C 234 123.847 166.457 202.054 1.00116.44 N
ATOM 1229 CA HIS C 234 124.842 166.067 203.051 1.00116.44 C
ATOM 1230 C HIS C 234 124.677 166.995 204.251 1.00116.44 C
ATOM 1231 O HIS C 234 125.124 168.146 204.214 1.00116.44 O
ATOM 1232 CB HIS C 234 126.251 166.131 202.479 1.00116.44 C
ATOM 1233 CG HIS C 234 126.669 164.884 201.762 1.00116.44 C
ATOM 1234 ND1 HIS C 234 126.014 164.414 200.644 1.00116.44 N
ATOM 1235 CD2 HIS C 234 127.670 164.006 202.009 1.00116.44 C
ATOM 1236 CE1 HIS C 234 126.596 163.302 200.230 1.00116.44 C
ATOM 1237 NE2 HIS C 234 127.603 163.033 201.041 1.00116.44 N
ATOM 1238 N SER C 235 124.047 166.487 205.305 1.00117.57 N
ATOM 1239 CA SER C 235 123.736 167.287 206.481 1.00117.57 C

ATOM 1240 C SER C 235 124.976 167.416 207.363 1.00117.57 C
ATOM 1241 O SER C 235 126.092 167.068 206.969 1.00117.57 O
ATOM 1242 CB SER C 235 122.561 166.679 207.238 1.00117.57 C
ATOM 1243 OG SER C 235 122.399 167.301 208.500 1.00117.57 O
ATOM 1244 N ARG C 236 124.788 167.930 208.579 1.00118.60 N
ATOM 1245 CA ARG C 236 125.892 168.156 209.507 1.00118.60 C
ATOM 1246 C ARG C 236 126.147 166.940 210.395 1.00118.60 C
ATOM 1247 O ARG C 236 127.246 166.378 210.390 1.00118.60 O
ATOM 1248 CB ARG C 236 125.607 169.393 210.367 1.00118.60 C
ATOM 1249 CG ARG C 236 126.542 169.560 211.558 1.00118.60 C
ATOM 1250 CD ARG C 236 127.897 170.107 211.137 1.00118.60 C
ATOM 1251 NE ARG C 236 128.581 169.221 210.200 1.00118.60 N
ATOM 1252 CZ ARG C 236 129.603 169.587 209.436 1.00118.60 C
ATOM 1253 NH1 ARG C 236 130.068 170.827 209.495 1.00118.60 N
ATOM 1254 NH2 ARG C 236 130.163 168.713 208.612 1.00118.60 N
ATOM 1255 N GLY C 237 125.143 166.529 211.158 1.00115.98 N
ATOM 1256 CA GLY C 237 125.296 165.456 212.119 1.00115.98 C
ATOM 1257 C GLY C 237 125.408 165.980 213.536 1.00115.98 C
ATOM 1258 O GLY C 237 125.173 167.157 213.829 1.00115.98 O
ATOM 1259 N SER C 238 125.777 165.073 214.434 1.00109.24 N
ATOM 1260 CA SER C 238 125.964 165.394 215.842 1.00109.24 C
ATOM 1261 C SER C 238 127.394 165.061 216.244 1.00109.24 C
ATOM 1262 O SER C 238 127.888 163.969 215.946 1.00109.24 O
ATOM 1263 CB SER C 238 124.969 164.630 216.717 1.00109.24 C
ATOM 1264 OG SER C 238 123.718 165.294 216.758 1.00109.24 O
ATOM 1265 N THR C 239 128.051 166.005 216.913 1.00104.29 N
ATOM 1266 CA THR C 239 129.445 165.821 217.294 1.00104.29 C
ATOM 1267 C THR C 239 129.627 164.533 218.085 1.00104.29 C
ATOM 1268 O THR C 239 128.847 164.223 218.989 1.00104.29 O
ATOM 1269 CB THR C 239 129.926 167.012 218.120 1.00104.29 C
ATOM 1270 OG1 THR C 239 128.966 167.301 219.143 1.00104.29 O
ATOM 1271 CG2 THR C 239 130.090 168.234 217.237 1.00104.29 C
ATOM 1272 N TRP C 240 130.669 163.778 217.738 1.00102.21 N
ATOM 1273 CA TRP C 240 131.018 162.549 218.449 1.00102.21 C

ATOM 1274 C TRP C 240 129.956 161.469 218.258 1.00102.21 C
ATOM 1275 O TRP C 240 129.597 160.765 219.201 1.00102.21 O
ATOM 1276 CB TRP C 240 131.244 162.817 219.939 1.00102.21 C
ATOM 1277 CG TRP C 240 132.378 163.747 220.233 1.00102.21 C
ATOM 1278 CD1 TRP C 240 133.364 164.135 219.377 1.00102.21 C
ATOM 1279 CD2 TRP C 240 132.645 164.405 221.476 1.00102.21 C
ATOM 1280 NE1 TRP C 240 134.229 164.996 220.009 1.00102.21 N
ATOM 1281 CE2 TRP C 240 133.808 165.177 221.299 1.00102.21 C
ATOM 1282 CE3 TRP C 240 132.012 164.416 222.722 1.00102.21 C
ATOM 1283 CZ2 TRP C 240 134.350 165.952 222.318 1.00102.21 C
ATOM 1284 CZ3 TRP C 240 132.551 165.184 223.732 1.00102.21 C
ATOM 1285 CH2 TRP C 240 133.708 165.942 223.525 1.00102.21 C
ATOM 1286 N LEU C 241 129.447 161.333 217.035 1.00 99.98 N
ATOM 1287 CA LEU C 241 128.436 160.327 216.738 1.00 99.98 C
ATOM 1288 C LEU C 241 128.738 159.682 215.395 1.00 99.98 C
ATOM 1289 O LEU C 241 128.941 160.379 214.397 1.00 99.98 O
ATOM 1290 CB LEU C 241 127.032 160.937 216.737 1.00 99.98 C
ATOM 1291 CG LEU C 241 126.440 161.141 218.132 1.00 99.98 C
ATOM 1292 CD1 LEU C 241 125.068 161.781 218.052 1.00 99.98 C
ATOM 1293 CD2 LEU C 241 126.373 159.824 218.881 1.00 99.98 C
ATOM 1294 N TYR C 242 128.763 158.353 215.381 1.00 98.34 N
ATOM 1295 CA TYR C 242 129.127 157.578 214.202 1.00 98.34 C
ATOM 1296 C TYR C 242 127.863 157.184 213.449 1.00 98.34 C
ATOM 1297 O TYR C 242 126.987 156.517 214.007 1.00 98.34 O
ATOM 1298 CB TYR C 242 129.922 156.344 214.623 1.00 98.34 C
ATOM 1299 CG TYR C 242 130.299 155.410 213.501 1.00 98.34 C
ATOM 1300 CD1 TYR C 242 131.362 155.697 212.660 1.00 98.34 C
ATOM 1301 CD2 TYR C 242 129.607 154.228 213.299 1.00 98.34 C
ATOM 1302 CE1 TYR C 242 131.717 154.841 211.642 1.00 98.34 C
ATOM 1303 CE2 TYR C 242 129.953 153.367 212.284 1.00 98.34 C
ATOM 1304 CZ TYR C 242 131.008 153.677 211.458 1.00 98.34 C
ATOM 1305 OH TYR C 242 131.354 152.817 210.444 1.00 98.34 O
ATOM 1306 N ARG C 243 127.770 157.593 212.184 1.00100.53 N
ATOM 1307 CA ARG C 243 126.563 157.362 211.403 1.00100.53 C

ATOM 1308 C ARG C 243 126.926 157.038 209.963 1.00100.53 C
ATOM 1309 O ARG C 243 127.980 157.442 209.466 1.00100.53 O
ATOM 1310 CB ARG C 243 125.636 158.580 211.435 1.00100.53 C
ATOM 1311 CG ARG C 243 126.157 159.750 210.629 1.00100.53 C
ATOM 1312 CD ARG C 243 125.063 160.761 210.363 1.00100.53 C
ATOM 1313 NE ARG C 243 125.515 161.825 209.474 1.00100.53 N
ATOM 1314 CZ ARG C 243 124.750 162.831 209.067 1.00100.53 C
ATOM 1315 NH1 ARG C 243 123.489 162.913 209.470 1.00100.53 N
ATOM 1316 NH2 ARG C 243 125.247 163.757 208.259 1.00100.53 N
ATOM 1317 N GLU C 244 126.034 156.307 209.298 1.00 97.60 N
ATOM 1318 CA GLU C 244 126.164 155.992 207.884 1.00 97.60 C
ATOM 1319 C GLU C 244 124.790 156.067 207.237 1.00 97.60 C
ATOM 1320 O GLU C 244 123.793 155.649 207.832 1.00 97.60 O
ATOM 1321 CB GLU C 244 126.781 154.606 207.671 1.00 97.60 C
ATOM 1322 CG GLU C 244 125.881 153.457 208.066 1.00 97.60 C
ATOM 1323 CD GLU C 244 125.761 153.310 209.564 1.00 97.60 C
ATOM 1324 OE1 GLU C 244 125.867 154.334 210.269 1.00 97.60 O
ATOM 1325 OE2 GLU C 244 125.572 152.171 210.039 1.00 97.60 O
ATOM 1326 N THR C 245 124.743 156.596 206.020 1.00 96.12 N
ATOM 1327 CA THR C 245 123.492 156.939 205.357 1.00 96.12 C
ATOM 1328 C THR C 245 123.292 156.073 204.112 1.00 96.12 C
ATOM 1329 O THR C 245 124.074 155.164 203.825 1.00 96.12 O
ATOM 1330 CB THR C 245 123.475 158.427 205.007 1.00 96.12 C
ATOM 1331 OG1 THR C 245 124.657 158.754 204.267 1.00 96.12 O
ATOM 1332 CG2 THR C 245 123.437 159.260 206.272 1.00 96.12 C
ATOM 1333 N CYS C 246 122.223 156.368 203.373 1.00 95.23 N
ATOM 1334 CA CYS C 246 121.878 155.632 202.159 1.00 95.23 C
ATOM 1335 C CYS C 246 120.999 156.522 201.298 1.00 95.23 C
ATOM 1336 O CYS C 246 119.892 156.877 201.711 1.00 95.23 O
ATOM 1337 CB CYS C 246 121.156 154.329 202.497 1.00 95.23 C
ATOM 1338 SG CYS C 246 120.695 153.332 201.064 1.00 95.23 S
ATOM 1339 N ASN C 247 121.482 156.880 200.111 1.00 90.19 N
ATOM 1340 CA ASN C 247 120.770 157.775 199.210 1.00 90.19 C
ATOM 1341 C ASN C 247 120.337 157.025 197.960 1.00 90.19 C

ATOM 1342 O ASN C 247 121.043 156.131 197.486 1.00 90.19 O
ATOM 1343 CB ASN C 247 121.641 158.970 198.826 1.00 90.19 C
ATOM 1344 CG ASN C 247 121.797 159.959 199.957 1.00 90.19 C
ATOM 1345 OD1 ASN C 247 120.867 160.187 200.728 1.00 90.19 O
ATOM 1346 ND2 ASN C 247 122.979 160.552 200.067 1.00 90.19 N
ATOM 1347 N LEU C 248 119.178 157.397 197.426 1.00 79.57 N
ATOM 1348 CA LEU C 248 118.576 156.727 196.283 1.00 79.57 C
ATOM 1349 C LEU C 248 118.514 157.665 195.084 1.00 79.57 C
ATOM 1350 O LEU C 248 118.618 158.887 195.212 1.00 79.57 O
ATOM 1351 CB LEU C 248 117.172 156.225 196.625 1.00 79.57 C
ATOM 1352 CG LEU C 248 116.667 155.056 195.787 1.00 79.57 C
ATOM 1353 CD1 LEU C 248 117.577 153.861 195.966 1.00 79.57 C
ATOM 1354 CD2 LEU C 248 115.246 154.708 196.172 1.00 79.57 C
ATOM 1355 N ASN C 249 118.336 157.072 193.906 1.00 64.92 N
ATOM 1356 CA ASN C 249 118.309 157.834 192.667 1.00 64.92 C
ATOM 1357 C ASN C 249 117.718 156.963 191.569 1.00 64.92 C
ATOM 1358 O ASN C 249 117.983 155.760 191.521 1.00 64.92 O
ATOM 1359 CB ASN C 249 119.715 158.303 192.280 1.00 64.92 C
ATOM 1360 CG ASN C 249 119.695 159.467 191.323 1.00 64.92 C
ATOM 1361 OD1 ASN C 249 118.684 160.151 191.186 1.00 64.92 O
ATOM 1362 ND2 ASN C 249 120.814 159.704 190.655 1.00 64.92 N
ATOM 1363 N CYS C 250 116.923 157.576 190.693 1.00 57.10 N
ATOM 1364 CA CYS C 250 116.230 156.872 189.619 1.00 57.10 C
ATOM 1365 C CYS C 250 116.468 157.625 188.321 1.00 57.10 C
ATOM 1366 O CYS C 250 116.123 158.805 188.221 1.00 57.10 O
ATOM 1367 CB CYS C 250 114.731 156.765 189.915 1.00 57.10 C
ATOM 1368 SG CYS C 250 113.755 155.915 188.664 1.00 57.10 S
ATOM 1369 N MET C 251 117.053 156.951 187.333 1.00 46.38 N
ATOM 1370 CA MET C 251 117.421 157.605 186.086 1.00 46.38 C
ATOM 1371 C MET C 251 117.004 156.749 184.898 1.00 46.38 C
ATOM 1372 O MET C 251 116.959 155.521 184.984 1.00 46.38 O
ATOM 1373 CB MET C 251 118.923 157.893 186.033 1.00 46.38 C
ATOM 1374 CG MET C 251 119.785 156.662 185.945 1.00 46.38 C
ATOM 1375 SD MET C 251 121.537 157.073 185.923 1.00 46.38 S

ATOM 1376 CE MET C 251 121.689 157.938 187.479 1.00 46.38 C
ATOM 1377 N VAL C 252 116.700 157.422 183.785 1.00 39.69 N
ATOM 1378 CA VAL C 252 116.205 156.789 182.565 1.00 39.69 C
ATOM 1379 C VAL C 252 116.835 157.437 181.340 1.00 39.69 C
ATOM 1380 O VAL C 252 116.420 158.524 180.928 1.00 39.69 O
ATOM 1381 CB VAL C 252 114.674 156.886 182.482 1.00 39.69 C
ATOM 1382 CG1 VAL C 252 114.215 156.594 181.078 1.00 39.69 C
ATOM 1383 CG2 VAL C 252 114.029 155.937 183.461 1.00 39.69 C
ATOM 1384 N THR C 253 117.818 156.781 180.734 1.00 35.31 N
ATOM 1385 CA THR C 253 118.484 157.340 179.567 1.00 35.31 C
ATOM 1386 C THR C 253 117.718 157.000 178.290 1.00 35.31 C
ATOM 1387 O THR C 253 116.749 156.242 178.299 1.00 35.31 O
ATOM 1388 CB THR C 253 119.923 156.839 179.480 1.00 35.31 C
ATOM 1389 OG1 THR C 253 120.524 157.303 178.267 1.00 35.31 O
ATOM 1390 CG2 THR C 253 119.959 155.337 179.507 1.00 35.31 C
ATOM 1391 N ILE C 254 118.158 157.593 177.179 1.00 37.00 N
ATOM 1392 CA ILE C 254 117.547 157.371 175.869 1.00 37.00 C
ATOM 1393 C ILE C 254 118.613 157.477 174.787 1.00 37.00 C
ATOM 1394 O ILE C 254 119.220 158.538 174.609 1.00 37.00 O
ATOM 1395 CB ILE C 254 116.409 158.371 175.607 1.00 37.00 C
ATOM 1396 CG1 ILE C 254 115.242 158.117 176.553 1.00 37.00 C
ATOM 1397 CG2 ILE C 254 115.946 158.275 174.174 1.00 37.00 C
ATOM 1398 CD1 ILE C 254 114.082 159.042 176.331 1.00 37.00 C
ATOM 1399 N THR C 255 118.838 156.397 174.040 1.00 37.85 N
ATOM 1400 CA THR C 255 119.925 156.370 173.067 1.00 37.85 C
ATOM 1401 C THR C 255 119.482 155.821 171.716 1.00 37.85 C
ATOM 1402 O THR C 255 118.287 155.627 171.482 1.00 37.85 O
ATOM 1403 CB THR C 255 121.090 155.545 173.605 1.00 37.85 C
ATOM 1404 OG1 THR C 255 120.652 154.205 173.843 1.00 37.85 O
ATOM 1405 CG2 THR C 255 121.588 156.134 174.902 1.00 37.85 C
ATOM 1406 N THR C 256 120.437 155.573 170.819 1.00 39.35 N
ATOM 1407 CA THR C 256 120.149 155.070 169.479 1.00 39.35 C
ATOM 1408 C THR C 256 121.131 153.961 169.141 1.00 39.35 C
ATOM 1409 O THR C 256 122.344 154.185 169.165 1.00 39.35 O

ATOM 1410 CB THR C 256 120.244 156.182 168.437 1.00 39.35 C
ATOM 1411 OG1 THR C 256 121.621 156.429 168.138 1.00 39.35 O
ATOM 1412 CG2 THR C 256 119.620 157.454 168.965 1.00 39.35 C
ATOM 1413 N ALA C 257 120.615 152.782 168.807 1.00 38.91 N
ATOM 1414 CA ALA C 257 121.428 151.615 168.512 1.00 38.91 C
ATOM 1415 C ALA C 257 121.651 151.488 167.009 1.00 38.91 C
ATOM 1416 O ALA C 257 121.097 152.241 166.209 1.00 38.91 O
ATOM 1417 CB ALA C 257 120.775 150.358 169.077 1.00 38.91 C
ATOM 1418 N ARG C 258 122.473 150.515 166.619 1.00 44.69 N
ATOM 1419 CA ARG C 258 122.770 150.307 165.203 1.00 44.69 C
ATOM 1420 C ARG C 258 123.313 148.899 165.004 1.00 44.69 C
ATOM 1421 O ARG C 258 124.392 148.579 165.510 1.00 44.69 O
ATOM 1422 CB ARG C 258 123.765 151.343 164.707 1.00 44.69 C
ATOM 1423 CG ARG C 258 124.680 150.827 163.619 1.00 44.69 C
ATOM 1424 CD ARG C 258 125.499 151.943 163.011 1.00 44.69 C
ATOM 1425 NE ARG C 258 124.658 153.013 162.493 1.00 44.69 N
ATOM 1426 CZ ARG C 258 125.125 154.104 161.901 1.00 44.69 C
ATOM 1427 NH1 ARG C 258 124.289 155.031 161.459 1.00 44.69 N
ATOM 1428 NH2 ARG C 258 126.430 154.268 161.753 1.00 44.69 N
ATOM 1429 N SER C 259 122.582 148.073 164.260 1.00 47.82 N
ATOM 1430 CA SER C 259 123.012 146.733 163.891 1.00 47.82 C
ATOM 1431 C SER C 259 123.287 146.674 162.396 1.00 47.82 C
ATOM 1432 O SER C 259 122.951 147.592 161.645 1.00 47.82 O
ATOM 1433 CB SER C 259 121.958 145.692 164.275 1.00 47.82 C
ATOM 1434 OG SER C 259 120.666 146.123 163.901 1.00 47.82 O
ATOM 1435 N LYS C 260 123.896 145.573 161.958 1.00 58.72 N
ATOM 1436 CA LYS C 260 124.238 145.410 160.553 1.00 58.72 C
ATOM 1437 C LYS C 260 124.136 143.946 160.148 1.00 58.72 C
ATOM 1438 O LYS C 260 124.103 143.044 160.988 1.00 58.72 O
ATOM 1439 CB LYS C 260 125.635 145.958 160.252 1.00 58.72 C
ATOM 1440 CG LYS C 260 126.741 145.318 161.047 1.00 58.72 C
ATOM 1441 CD LYS C 260 128.073 145.920 160.654 1.00 58.72 C
ATOM 1442 CE LYS C 260 128.154 147.374 161.086 1.00 58.72 C
ATOM 1443 NZ LYS C 260 129.507 147.948 160.862 1.00 58.72 N

ATOM 1444 N TYR C 261 124.086 143.730 158.838 1.00 62.19 N
ATOM 1445 CA TYR C 261 123.805 142.415 158.281 1.00 62.19 C
ATOM 1446 C TYR C 261 124.732 141.368 158.896 1.00 62.19 C
ATOM 1447 O TYR C 261 125.930 141.628 159.067 1.00 62.19 O
ATOM 1448 CB TYR C 261 123.982 142.453 156.761 1.00 62.19 C
ATOM 1449 CG TYR C 261 123.331 141.313 156.014 1.00 62.19 C
ATOM 1450 CD1 TYR C 261 121.987 141.360 155.674 1.00 62.19 C
ATOM 1451 CD2 TYR C 261 124.063 140.203 155.628 1.00 62.19 C
ATOM 1452 CE1 TYR C 261 121.390 140.328 154.987 1.00 62.19 C
ATOM 1453 CE2 TYR C 261 123.474 139.166 154.939 1.00 62.19 C
ATOM 1454 CZ TYR C 261 122.136 139.234 154.622 1.00 62.19 C
ATOM 1455 OH TYR C 261 121.543 138.203 153.935 1.00 62.19 O
ATOM 1456 N PRO C 262 124.226 140.167 159.229 1.00 59.61 N
ATOM 1457 CA PRO C 262 122.844 139.709 159.056 1.00 59.61 C
ATOM 1458 C PRO C 262 121.896 140.022 160.218 1.00 59.61 C
ATOM 1459 O PRO C 262 120.887 139.336 160.363 1.00 59.61 O
ATOM 1460 CB PRO C 262 123.009 138.200 158.916 1.00 59.61 C
ATOM 1461 CG PRO C 262 124.164 137.898 159.778 1.00 59.61 C
ATOM 1462 CD PRO C 262 125.108 139.063 159.642 1.00 59.61 C
ATOM 1463 N TYR C 263 122.208 141.037 161.024 1.00 58.28 N
ATOM 1464 CA TYR C 263 121.320 141.513 162.085 1.00 58.28 C
ATOM 1465 C TYR C 263 121.017 140.415 163.110 1.00 58.28 C
ATOM 1466 O TYR C 263 119.885 139.949 163.240 1.00 58.28 O
ATOM 1467 CB TYR C 263 120.002 142.049 161.514 1.00 58.28 C
ATOM 1468 CG TYR C 263 120.109 142.851 160.246 1.00 58.28 C
ATOM 1469 CD1 TYR C 263 121.029 143.875 160.124 1.00 58.28 C
ATOM 1470 CD2 TYR C 263 119.267 142.602 159.178 1.00 58.28 C
ATOM 1471 CE1 TYR C 263 121.122 144.615 158.968 1.00 58.28 C
ATOM 1472 CE2 TYR C 263 119.350 143.338 158.020 1.00 58.28 C
ATOM 1473 CZ TYR C 263 120.280 144.343 157.920 1.00 58.28 C
ATOM 1474 OH TYR C 263 120.366 145.080 156.765 1.00 58.28 O
ATOM 1475 N HIS C 264 122.054 140.000 163.842 1.00 60.83 N
ATOM 1476 CA HIS C 264 121.763 139.233 165.048 1.00 60.83 C
ATOM 1477 C HIS C 264 122.568 139.720 166.248 1.00 60.83 C

ATOM 1478 O HIS C 264 122.919 138.927 167.126 1.00 60.83 O
ATOM 1479 CB HIS C 264 121.970 137.725 164.847 1.00 60.83 C
ATOM 1480 CG HIS C 264 123.364 137.327 164.477 1.00 60.83 C
ATOM 1481 ND1 HIS C 264 123.663 136.696 163.289 1.00 60.83 N
ATOM 1482 CD2 HIS C 264 124.536 137.449 165.143 1.00 60.83 C
ATOM 1483 CE1 HIS C 264 124.960 136.452 163.236 1.00 60.83 C
ATOM 1484 NE2 HIS C 264 125.513 136.901 164.348 1.00 60.83 N
ATOM 1485 N PHE C 265 122.881 141.014 166.296 1.00 47.73 N
ATOM 1486 CA PHE C 265 123.317 141.655 167.531 1.00 47.73 C
ATOM 1487 C PHE C 265 123.455 143.154 167.308 1.00 47.73 C
ATOM 1488 O PHE C 265 123.921 143.578 166.247 1.00 47.73 O
ATOM 1489 CB PHE C 265 124.633 141.054 168.020 1.00 47.73 C
ATOM 1490 CG PHE C 265 125.848 141.783 167.541 1.00 47.73 C
ATOM 1491 CD1 PHE C 265 126.385 141.517 166.299 1.00 47.73 C
ATOM 1492 CD2 PHE C 265 126.461 142.729 168.338 1.00 47.73 C
ATOM 1493 CE1 PHE C 265 127.507 142.184 165.859 1.00 47.73 C
ATOM 1494 CE2 PHE C 265 127.583 143.399 167.903 1.00 47.73 C
ATOM 1495 CZ PHE C 265 128.107 143.127 166.662 1.00 47.73 C
ATOM 1496 N PHE C 266 123.070 143.970 168.287 1.00 38.77 N
ATOM 1497 CA PHE C 266 123.182 145.415 168.158 1.00 38.77 C
ATOM 1498 C PHE C 266 123.827 146.011 169.398 1.00 38.77 C
ATOM 1499 O PHE C 266 123.782 145.436 170.485 1.00 38.77 O
ATOM 1500 CB PHE C 266 121.822 146.069 167.907 1.00 38.77 C
ATOM 1501 CG PHE C 266 120.820 145.852 168.997 1.00 38.77 C
ATOM 1502 CD1 PHE C 266 120.747 146.716 170.069 1.00 38.77 C
ATOM 1503 CD2 PHE C 266 119.921 144.810 168.930 1.00 38.77 C
ATOM 1504 CE1 PHE C 266 119.812 146.530 171.063 1.00 38.77 C
ATOM 1505 CE2 PHE C 266 118.983 144.621 169.923 1.00 38.77 C
ATOM 1506 CZ PHE C 266 118.928 145.483 170.987 1.00 38.77 C
ATOM 1507 N ALA C 267 124.427 147.185 169.217 1.00 37.76 N
ATOM 1508 CA ALA C 267 125.149 147.880 170.274 1.00 37.76 C
ATOM 1509 C ALA C 267 124.708 149.334 170.318 1.00 37.76 C
ATOM 1510 O ALA C 267 124.712 150.015 169.290 1.00 37.76 O
ATOM 1511 CB ALA C 267 126.660 147.798 170.056 1.00 37.76 C

ATOM 1512 N THR C 268 124.349 149.810 171.506 1.00 39.01 N
ATOM 1513 CA THR C 268 123.821 151.159 171.668 1.00 39.01 C
ATOM 1514 C THR C 268 124.965 152.170 171.656 1.00 39.01 C
ATOM 1515 O THR C 268 126.109 151.849 171.326 1.00 39.01 O
ATOM 1516 CB THR C 268 122.997 151.254 172.945 1.00 39.01 C
ATOM 1517 OG1 THR C 268 123.806 150.887 174.064 1.00 39.01 O
ATOM 1518 CG2 THR C 268 121.806 150.322 172.875 1.00 39.01 C
ATOM 1519 N SER C 269 124.660 153.418 172.009 1.00 40.29 N
ATOM 1520 CA SER C 269 125.646 154.492 172.022 1.00 40.29 C
ATOM 1521 C SER C 269 126.378 154.595 173.353 1.00 40.29 C
ATOM 1522 O SER C 269 127.585 154.854 173.374 1.00 40.29 O
ATOM 1523 CB SER C 269 124.977 155.831 171.704 1.00 40.29 C
ATOM 1524 OG SER C 269 124.696 155.947 170.323 1.00 40.29 O
ATOM 1525 N THR C 270 125.672 154.408 174.469 1.00 41.24 N
ATOM 1526 CA THR C 270 126.315 154.469 175.775 1.00 41.24 C
ATOM 1527 C THR C 270 127.309 153.335 175.988 1.00 41.24 C
ATOM 1528 O THR C 270 128.166 153.440 176.870 1.00 41.24 O
ATOM 1529 CB THR C 270 125.261 154.462 176.881 1.00 41.24 C
ATOM 1530 OG1 THR C 270 124.548 153.221 176.867 1.00 41.24 O
ATOM 1531 CG2 THR C 270 124.288 155.596 176.679 1.00 41.24 C
ATOM 1532 N GLY C 271 127.215 152.254 175.219 1.00 39.88 N
ATOM 1533 CA GLY C 271 128.232 151.222 175.265 1.00 39.88 C
ATOM 1534 C GLY C 271 127.711 149.805 175.371 1.00 39.88 C
ATOM 1535 O GLY C 271 128.466 148.844 175.198 1.00 39.88 O
ATOM 1536 N ASP C 272 126.418 149.662 175.641 1.00 42.71 N
ATOM 1537 CA ASP C 272 125.822 148.368 175.941 1.00 42.71 C
ATOM 1538 C ASP C 272 125.857 147.445 174.722 1.00 42.71 C
ATOM 1539 O ASP C 272 126.222 147.841 173.617 1.00 42.71 O
ATOM 1540 CB ASP C 272 124.388 148.568 176.420 1.00 42.71 C
ATOM 1541 CG ASP C 272 124.323 149.047 177.845 1.00 42.71 C
ATOM 1542 OD1 ASP C 272 125.128 148.555 178.668 1.00 42.71 O
ATOM 1543 OD2 ASP C 272 123.434 149.865 178.164 1.00 42.71 O
ATOM 1544 N VAL C 273 125.466 146.191 174.939 1.00 39.85 N
ATOM 1545 CA VAL C 273 125.465 145.181 173.883 1.00 39.85 C

ATOM 1546 C VAL C 273 124.486 144.083 174.276 1.00 39.85 C
ATOM 1547 O VAL C 273 124.388 143.710 175.448 1.00 39.85 O
ATOM 1548 CB VAL C 273 126.878 144.601 173.645 1.00 39.85 C
ATOM 1549 CG1 VAL C 273 126.798 143.367 172.782 1.00 39.85 C
ATOM 1550 CG2 VAL C 273 127.781 145.624 172.994 1.00 39.85 C
ATOM 1551 N VAL C 274 123.765 143.563 173.286 1.00 42.22 N
ATOM 1552 CA VAL C 274 122.839 142.455 173.478 1.00 42.22 C
ATOM 1553 C VAL C 274 122.901 141.563 172.245 1.00 42.22 C
ATOM 1554 O VAL C 274 123.409 141.952 171.193 1.00 42.22 O
ATOM 1555 CB VAL C 274 121.397 142.931 173.723 1.00 42.22 C
ATOM 1556 CG1 VAL C 274 121.330 143.752 174.984 1.00 42.22 C
ATOM 1557 CG2 VAL C 274 120.932 143.744 172.560 1.00 42.22 C
ATOM 1558 N ASP C 275 122.375 140.348 172.382 1.00 51.68 N
ATOM 1559 CA ASP C 275 122.396 139.357 171.306 1.00 51.68 C
ATOM 1560 C ASP C 275 120.963 138.972 170.961 1.00 51.68 C
ATOM 1561 O ASP C 275 120.440 137.964 171.437 1.00 51.68 O
ATOM 1562 CB ASP C 275 123.216 138.149 171.706 1.00 51.68 C
ATOM 1563 CG ASP C 275 124.700 138.417 171.661 1.00 51.68 C
ATOM 1564 OD1 ASP C 275 125.085 139.558 171.341 1.00 51.68 O
ATOM 1565 OD2 ASP C 275 125.485 137.488 171.945 1.00 51.68 O
ATOM 1566 N ILE C 276 120.339 139.772 170.101 1.00 48.86 N
ATOM 1567 CA ILE C 276 119.006 139.484 169.589 1.00 48.86 C
ATOM 1568 C ILE C 276 118.873 140.230 168.275 1.00 48.86 C
ATOM 1569 O ILE C 276 119.603 141.184 168.012 1.00 48.86 O
ATOM 1570 CB ILE C 276 117.897 139.897 170.589 1.00 48.86 C
ATOM 1571 CG1 ILE C 276 118.003 139.102 171.886 1.00 48.86 C
ATOM 1572 CG2 ILE C 276 116.531 139.689 169.986 1.00 48.86 C
ATOM 1573 CD1 ILE C 276 116.784 139.222 172.761 1.00 48.86 C
ATOM 1574 N SER C 277 117.953 139.794 167.444 1.00 56.45 N
ATOM 1575 CA SER C 277 117.766 140.535 166.207 1.00 56.45 C
ATOM 1576 C SER C 277 116.629 141.520 166.372 1.00 56.45 C
ATOM 1577 O SER C 277 115.534 141.126 166.795 1.00 56.45 O
ATOM 1578 CB SER C 277 117.468 139.588 165.050 1.00 56.45 C
ATOM 1579 OG SER C 277 118.661 139.016 164.545 1.00 56.45 O

ATOM 1580 N PRO C 278 116.840 142.795 166.055 1.00 52.41 N
ATOM 1581 CA PRO C 278 115.776 143.785 166.258 1.00 52.41 C
ATOM 1582 C PRO C 278 114.431 143.353 165.714 1.00 52.41 C
ATOM 1583 O PRO C 278 113.396 143.810 166.212 1.00 52.41 O
ATOM 1584 CB PRO C 278 116.310 145.019 165.522 1.00 52.41 C
ATOM 1585 CG PRO C 278 117.775 144.850 165.519 1.00 52.41 C
ATOM 1586 CD PRO C 278 118.041 143.384 165.447 1.00 52.41 C
ATOM 1587 N PHE C 279 114.409 142.480 164.708 1.00 59.30 N
ATOM 1588 CA PHE C 279 113.169 142.050 164.078 1.00 59.30 C
ATOM 1589 C PHE C 279 112.531 140.851 164.763 1.00 59.30 C
ATOM 1590 O PHE C 279 111.389 140.511 164.439 1.00 59.30 O
ATOM 1591 CB PHE C 279 113.414 141.713 162.605 1.00 59.30 C
ATOM 1592 CG PHE C 279 114.258 142.721 161.884 1.00 59.30 C
ATOM 1593 CD1 PHE C 279 113.711 143.906 161.435 1.00 59.30 C
ATOM 1594 CD2 PHE C 279 115.597 142.480 161.651 1.00 59.30 C
ATOM 1595 CE1 PHE C 279 114.485 144.830 160.772 1.00 59.30 C
ATOM 1596 CE2 PHE C 279 116.373 143.402 160.989 1.00 59.30 C
ATOM 1597 CZ PHE C 279 115.816 144.577 160.549 1.00 59.30 C
ATOM 1598 N TYR C 280 113.226 140.207 165.693 1.00 64.58 N
ATOM 1599 CA TYR C 280 112.720 138.981 166.300 1.00 64.58 C
ATOM 1600 C TYR C 280 111.510 139.287 167.166 1.00 64.58 C
ATOM 1601 O TYR C 280 111.637 139.908 168.224 1.00 64.58 O
ATOM 1602 CB TYR C 280 113.807 138.310 167.131 1.00 64.58 C
ATOM 1603 CG TYR C 280 113.257 137.291 168.099 1.00 64.58 C
ATOM 1604 CD1 TYR C 280 112.993 135.998 167.693 1.00 64.58 C
ATOM 1605 CD2 TYR C 280 112.993 137.624 169.414 1.00 64.58 C
ATOM 1606 CE1 TYR C 280 112.486 135.066 168.567 1.00 64.58 C
ATOM 1607 CE2 TYR C 280 112.483 136.697 170.294 1.00 64.58 C
ATOM 1608 CZ TYR C 280 112.233 135.420 169.865 1.00 64.58 C
ATOM 1609 OH TYR C 280 111.727 134.489 170.739 1.00 64.58 O
ATOM 1610 N ASN C 281 110.335 138.862 166.727 1.00 70.38 N
ATOM 1611 CA ASN C 281 109.191 138.759 167.613 1.00 70.38 C
ATOM 1612 C ASN C 281 109.069 137.315 168.091 1.00 70.38 C
ATOM 1613 O ASN C 281 109.987 136.506 167.937 1.00 70.38 O

ATOM 1614 CB ASN C 281 107.919 139.275 166.939 1.00 70.38 C
ATOM 1615 CG ASN C 281 107.781 138.814 165.515 1.00 70.38 C
ATOM 1616 OD1 ASN C 281 108.499 137.928 165.061 1.00 70.38 O
ATOM 1617 ND2 ASN C 281 106.854 139.427 164.791 1.00 70.38 N
ATOM 1618 N GLY C 282 107.940 136.994 168.711 1.00 73.55 N
ATOM 1619 CA GLY C 282 107.741 135.700 169.332 1.00 73.55 C
ATOM 1620 C GLY C 282 108.166 134.473 168.547 1.00 73.55 C
ATOM 1621 O GLY C 282 108.845 133.601 169.095 1.00 73.55 O
ATOM 1622 N THR C 283 107.785 134.385 167.273 1.00 77.44 N
ATOM 1623 CA THR C 283 107.838 133.132 166.520 1.00 77.44 C
ATOM 1624 C THR C 283 108.605 133.292 165.209 1.00 77.44 C
ATOM 1625 O THR C 283 108.135 132.904 164.139 1.00 77.44 O
ATOM 1626 CB THR C 283 106.430 132.617 166.245 1.00 77.44 C
ATOM 1627 OG1 THR C 283 105.901 133.274 165.088 1.00 77.44 O
ATOM 1628 CG2 THR C 283 105.525 132.903 167.431 1.00 77.44 C
ATOM 1629 N ASN C 284 109.806 133.867 165.271 1.00 76.77 N
ATOM 1630 CA ASN C 284 110.656 134.004 164.093 1.00 76.77 C
ATOM 1631 C ASN C 284 112.060 133.478 164.351 1.00 76.77 C
ATOM 1632 O ASN C 284 113.031 133.992 163.793 1.00 76.77 O
ATOM 1633 CB ASN C 284 110.723 135.457 163.628 1.00 76.77 C
ATOM 1634 CG ASN C 284 109.404 135.957 163.111 1.00 76.77 C
ATOM 1635 OD1 ASN C 284 108.418 135.224 163.085 1.00 76.77 O
ATOM 1636 ND2 ASN C 284 109.372 137.216 162.694 1.00 76.77 N
ATOM 1637 N ARG C 285 112.188 132.455 165.198 1.00 78.71 N
ATOM 1638 CA ARG C 285 113.511 131.924 165.503 1.00 78.71 C
ATOM 1639 C ARG C 285 114.210 131.398 164.256 1.00 78.71 C
ATOM 1640 O ARG C 285 115.445 131.390 164.196 1.00 78.71 O
ATOM 1641 CB ARG C 285 113.405 130.821 166.553 1.00 78.71 C
ATOM 1642 CG ARG C 285 112.982 131.307 167.922 1.00 78.71 C
ATOM 1643 CD ARG C 285 113.678 130.518 169.015 1.00 78.71 C
ATOM 1644 NE ARG C 285 115.116 130.428 168.783 1.00 78.71 N
ATOM 1645 CZ ARG C 285 115.994 130.016 169.691 1.00 78.71 C
ATOM 1646 NH1 ARG C 285 115.583 129.655 170.897 1.00 78.71 N
ATOM 1647 NH2 ARG C 285 117.284 129.966 169.393 1.00 78.71 N

ATOM 1648 N ASN C 286 113.446 130.958 163.255 1.00 88.39 N
ATOM 1649 CA ASN C 286 114.046 130.383 162.055 1.00 88.39 C
ATOM 1650 C ASN C 286 114.926 131.400 161.340 1.00 88.39 C
ATOM 1651 O ASN C 286 116.140 131.208 161.205 1.00 88.39 O
ATOM 1652 CB ASN C 286 112.951 129.865 161.123 1.00 88.39 C
ATOM 1653 CG ASN C 286 112.065 128.837 161.787 1.00 88.39 C
ATOM 1654 OD1 ASN C 286 112.535 128.012 162.571 1.00 88.39 O
ATOM 1655 ND2 ASN C 286 110.776 128.879 161.480 1.00 88.39 N
ATOM 1656 N ALA C 287 114.325 132.493 160.871 1.00 83.03 N
ATOM 1657 CA ALA C 287 115.088 133.522 160.176 1.00 83.03 C
ATOM 1658 C ALA C 287 115.815 134.435 161.157 1.00 83.03 C
ATOM 1659 O ALA C 287 116.986 134.770 160.953 1.00 83.03 O
ATOM 1660 CB ALA C 287 114.164 134.335 159.268 1.00 83.03 C
ATOM 1661 N SER C 288 115.139 134.839 162.229 1.00 74.07 N
ATOM 1662 CA SER C 288 115.686 135.796 163.178 1.00 74.07 C
ATOM 1663 C SER C 288 116.413 135.087 164.316 1.00 74.07 C
ATOM 1664 O SER C 288 116.028 133.999 164.747 1.00 74.07 O
ATOM 1665 CB SER C 288 114.575 136.677 163.738 1.00 74.07 C
ATOM 1666 OG SER C 288 113.707 137.098 162.703 1.00 74.07 O
ATOM 1667 N TYR C 289 117.471 135.729 164.801 1.00 66.18 N
ATOM 1668 CA TYR C 289 118.339 135.177 165.828 1.00 66.18 C
ATOM 1669 C TYR C 289 117.749 135.393 167.218 1.00 66.18 C
ATOM 1670 O TYR C 289 116.878 136.240 167.430 1.00 66.18 O
ATOM 1671 CB TYR C 289 119.718 135.827 165.735 1.00 66.18 C
ATOM 1672 CG TYR C 289 120.816 135.151 166.519 1.00 66.18 C
ATOM 1673 CD1 TYR C 289 120.999 135.415 167.866 1.00 66.18 C
ATOM 1674 CD2 TYR C 289 121.698 134.284 165.900 1.00 66.18 C
ATOM 1675 CE1 TYR C 289 122.008 134.813 168.580 1.00 66.18 C
ATOM 1676 CE2 TYR C 289 122.711 133.677 166.605 1.00 66.18 C
ATOM 1677 CZ TYR C 289 122.863 133.946 167.945 1.00 66.18 C
ATOM 1678 OH TYR C 289 123.874 133.344 168.654 1.00 66.18 O
ATOM 1679 N PHE C 290 118.229 134.599 168.172 1.00 65.86 N
ATOM 1680 CA PHE C 290 117.897 134.800 169.582 1.00 65.86 C
ATOM 1681 C PHE C 290 118.892 134.015 170.419 1.00 65.86 C

ATOM 1682 O PHE C 290 118.974 132.791 170.283 1.00 65.86 O
ATOM 1683 CB PHE C 290 116.480 134.347 169.878 1.00 65.86 C
ATOM 1684 CG PHE C 290 116.073 134.549 171.299 1.00 65.86 C
ATOM 1685 CD1 PHE C 290 115.504 135.739 171.703 1.00 65.86 C
ATOM 1686 CD2 PHE C 290 116.278 133.559 172.237 1.00 65.86 C
ATOM 1687 CE1 PHE C 290 115.132 135.932 173.011 1.00 65.86 C
ATOM 1688 CE2 PHE C 290 115.909 133.748 173.545 1.00 65.86 C
ATOM 1689 CZ PHE C 290 115.335 134.936 173.933 1.00 65.86 C
ATOM 1690 N GLY C 291 119.633 134.700 171.285 1.00 63.55 N
ATOM 1691 CA GLY C 291 120.690 134.030 172.016 1.00 63.55 C
ATOM 1692 C GLY C 291 120.955 134.451 173.448 1.00 63.55 C
ATOM 1693 O GLY C 291 122.108 134.397 173.883 1.00 63.55 O
ATOM 1694 N GLU C 292 119.938 134.870 174.204 1.00 65.85 N
ATOM 1695 CA GLU C 292 120.179 135.391 175.545 1.00 65.85 C
ATOM 1696 C GLU C 292 119.623 134.504 176.652 1.00 65.85 C
ATOM 1697 O GLU C 292 120.386 134.040 177.503 1.00 65.85 O
ATOM 1698 CB GLU C 292 119.605 136.808 175.668 1.00 65.85 C
ATOM 1699 CG GLU C 292 120.573 137.900 175.247 1.00 65.85 C
ATOM 1700 CD GLU C 292 121.731 138.056 176.211 1.00 65.85 C
ATOM 1701 OE1 GLU C 292 121.638 137.538 177.341 1.00 65.85 O
ATOM 1702 OE2 GLU C 292 122.737 138.694 175.837 1.00 65.85 O
ATOM 1703 N ASN C 293 118.324 134.243 176.676 1.00 71.25 N
ATOM 1704 CA ASN C 293 117.745 133.467 177.771 1.00 71.25 C
ATOM 1705 C ASN C 293 116.278 133.203 177.455 1.00 71.25 C
ATOM 1706 O ASN C 293 115.789 133.539 176.370 1.00 71.25 O
ATOM 1707 CB ASN C 293 117.926 134.178 179.112 1.00 71.25 C
ATOM 1708 CG ASN C 293 117.792 133.236 180.287 1.00 71.25 C
ATOM 1709 OD1 ASN C 293 116.717 132.693 180.541 1.00 71.25 O
ATOM 1710 ND2 ASN C 293 118.887 133.028 181.009 1.00 71.25 N
ATOM 1711 N ALA C 294 115.570 132.604 178.409 1.00 74.38 N
ATOM 1712 CA ALA C 294 114.192 132.174 178.211 1.00 74.38 C
ATOM 1713 C ALA C 294 113.176 133.087 178.879 1.00 74.38 C
ATOM 1714 O ALA C 294 112.248 133.560 178.217 1.00 74.38 O
ATOM 1715 CB ALA C 294 114.015 130.740 178.727 1.00 74.38 C

ATOM 1716 N ASP C 295 113.313 133.340 180.178 1.00 70.52 N
ATOM 1717 CA ASP C 295 112.359 134.155 180.922 1.00 70.52 C
ATOM 1718 C ASP C 295 112.977 135.478 181.363 1.00 70.52 C
ATOM 1719 O ASP C 295 112.723 135.970 182.462 1.00 70.52 O
ATOM 1720 CB ASP C 295 111.807 133.396 182.124 1.00 70.52 C
ATOM 1721 CG ASP C 295 110.499 133.980 182.631 1.00 70.52 C
ATOM 1722 OD1 ASP C 295 110.315 135.210 182.523 1.00 70.52 O
ATOM 1723 OD2 ASP C 295 109.650 133.212 183.132 1.00 70.52 O
ATOM 1724 N LYS C 296 113.807 136.060 180.504 1.00 63.10 N
ATOM 1725 CA LYS C 296 114.282 137.423 180.693 1.00 63.10 C
ATOM 1726 C LYS C 296 113.821 138.241 179.498 1.00 63.10 C
ATOM 1727 O LYS C 296 114.590 139.018 178.928 1.00 63.10 O
ATOM 1728 CB LYS C 296 115.803 137.463 180.832 1.00 63.10 C
ATOM 1729 CG LYS C 296 116.350 136.622 181.970 1.00 63.10 C
ATOM 1730 CD LYS C 296 115.685 136.975 183.286 1.00 63.10 C
ATOM 1731 CE LYS C 296 116.431 136.368 184.459 1.00 63.10 C
ATOM 1732 NZ LYS C 296 117.851 136.803 184.480 1.00 63.10 N
ATOM 1733 N PHE C 297 112.563 138.055 179.110 1.00 57.76 N
ATOM 1734 CA PHE C 297 112.062 138.560 177.843 1.00 57.76 C
ATOM 1735 C PHE C 297 110.551 138.711 177.957 1.00 57.76 C
ATOM 1736 O PHE C 297 109.886 137.856 178.543 1.00 57.76 O
ATOM 1737 CB PHE C 297 112.437 137.605 176.707 1.00 57.76 C
ATOM 1738 CG PHE C 297 112.079 138.105 175.346 1.00 57.76 C
ATOM 1739 CD1 PHE C 297 112.872 139.038 174.710 1.00 57.76 C
ATOM 1740 CD2 PHE C 297 110.946 137.646 174.704 1.00 57.76 C
ATOM 1741 CE1 PHE C 297 112.544 139.504 173.458 1.00 57.76 C
ATOM 1742 CE2 PHE C 297 110.614 138.109 173.451 1.00 57.76 C
ATOM 1743 CZ PHE C 297 111.417 139.038 172.827 1.00 57.76 C
ATOM 1744 N PHE C 298 110.017 139.796 177.405 1.00 57.00 N
ATOM 1745 CA PHE C 298 108.598 140.099 177.561 1.00 57.00 C
ATOM 1746 C PHE C 298 108.118 140.926 176.381 1.00 57.00 C
ATOM 1747 O PHE C 298 108.650 142.010 176.124 1.00 57.00 O
ATOM 1748 CB PHE C 298 108.340 140.844 178.869 1.00 57.00 C
ATOM 1749 CG PHE C 298 108.408 139.974 180.082 1.00 57.00 C

ATOM 1750 CD1 PHE C 298 107.304 139.251 180.494 1.00 57.00 C
ATOM 1751 CD2 PHE C 298 109.575 139.880 180.814 1.00 57.00 C
ATOM 1752 CE1 PHE C 298 107.365 138.450 181.611 1.00 57.00 C
ATOM 1753 CE2 PHE C 298 109.643 139.082 181.932 1.00 57.00 C
ATOM 1754 CZ PHE C 298 108.538 138.365 182.332 1.00 57.00 C
ATOM 1755 N ILE C 299 107.111 140.421 175.674 1.00 56.82 N
ATOM 1756 CA ILE C 299 106.512 141.105 174.535 1.00 56.82 C
ATOM 1757 C ILE C 299 105.118 141.561 174.937 1.00 56.82 C
ATOM 1758 O ILE C 299 104.275 140.742 175.322 1.00 56.82 O
ATOM 1759 CB ILE C 299 106.461 140.203 173.294 1.00 56.82 C
ATOM 1760 CG1 ILE C 299 107.853 139.676 172.951 1.00 56.82 C
ATOM 1761 CG2 ILE C 299 105.891 140.963 172.118 1.00 56.82 C
ATOM 1762 CD1 ILE C 299 108.772 140.723 172.370 1.00 56.82 C
ATOM 1763 N PHE C 300 104.875 142.867 174.848 1.00 58.87 N
ATOM 1764 CA PHE C 300 103.601 143.454 175.211 1.00 58.87 C
ATOM 1765 C PHE C 300 102.947 144.080 173.987 1.00 58.87 C
ATOM 1766 O PHE C 300 103.569 144.917 173.319 1.00 58.87 O
ATOM 1767 CB PHE C 300 103.786 144.519 176.301 1.00 58.87 C
ATOM 1768 CG PHE C 300 104.146 143.954 177.644 1.00 58.87 C
ATOM 1769 CD1 PHE C 300 103.160 143.571 178.533 1.00 58.87 C
ATOM 1770 CD2 PHE C 300 105.469 143.810 178.017 1.00 58.87 C
ATOM 1771 CE1 PHE C 300 103.487 143.054 179.766 1.00 58.87 C
ATOM 1772 CE2 PHE C 300 105.800 143.293 179.249 1.00 58.87 C
ATOM 1773 CZ PHE C 300 104.809 142.914 180.124 1.00 58.87 C
ATOM 1774 N PRO C 301 101.713 143.704 173.654 1.00 64.73 N
ATOM 1775 CA PRO C 301 101.027 144.310 172.509 1.00 64.73 C
ATOM 1776 C PRO C 301 100.173 145.503 172.910 1.00 64.73 C
ATOM 1777 O PRO C 301 99.543 145.525 173.969 1.00 64.73 O
ATOM 1778 CB PRO C 301 100.151 143.158 172.006 1.00 64.73 C
ATOM 1779 CG PRO C 301 99.779 142.436 173.262 1.00 64.73 C
ATOM 1780 CD PRO C 301 100.935 142.594 174.229 1.00 64.73 C
ATOM 1781 N ASN C 302 100.147 146.509 172.039 1.00 68.53 N
ATOM 1782 CA ASN C 302 99.367 147.724 172.265 1.00 68.53 C
ATOM 1783 C ASN C 302 99.758 148.383 173.591 1.00 68.53 C

ATOM 1784 O ASN C 302 98.965 148.515 174.521 1.00 68.53 O
ATOM 1785 CB ASN C 302 97.869 147.420 172.226 1.00 68.53 C
ATOM 1786 CG ASN C 302 97.247 147.741 170.888 1.00 68.53 C
ATOM 1787 OD1 ASN C 302 97.862 148.395 170.047 1.00 68.53 O
ATOM 1788 ND2 ASN C 302 96.015 147.287 170.682 1.00 68.53 N
ATOM 1789 N TYR C 303 101.017 148.805 173.642 1.00 64.36 N
ATOM 1790 CA TYR C 303 101.613 149.347 174.853 1.00 64.36 C
ATOM 1791 C TYR C 303 101.701 150.864 174.766 1.00 64.36 C
ATOM 1792 O TYR C 303 102.072 151.416 173.726 1.00 64.36 O
ATOM 1793 CB TYR C 303 103.001 148.749 175.074 1.00 64.36 C
ATOM 1794 CG TYR C 303 103.551 148.957 176.460 1.00 64.36 C
ATOM 1795 CD1 TYR C 303 102.872 148.484 177.570 1.00 64.36 C
ATOM 1796 CD2 TYR C 303 104.761 149.599 176.658 1.00 64.36 C
ATOM 1797 CE1 TYR C 303 103.372 148.662 178.837 1.00 64.36 C
ATOM 1798 CE2 TYR C 303 105.271 149.779 177.923 1.00 64.36 C
ATOM 1799 CZ TYR C 303 104.572 149.308 179.008 1.00 64.36 C
ATOM 1800 OH TYR C 303 105.073 149.484 180.274 1.00 64.36 O
ATOM 1801 N THR C 304 101.354 151.532 175.861 1.00 61.34 N
ATOM 1802 CA THR C 304 101.352 152.986 175.921 1.00 61.34 C
ATOM 1803 C THR C 304 102.700 153.509 176.403 1.00 61.34 C
ATOM 1804 O THR C 304 103.453 152.820 177.093 1.00 61.34 O
ATOM 1805 CB THR C 304 100.247 153.486 176.851 1.00 61.34 C
ATOM 1806 OG1 THR C 304 99.021 152.815 176.542 1.00 61.34 O
ATOM 1807 CG2 THR C 304 100.052 154.977 176.686 1.00 61.34 C
ATOM 1808 N ILE C 305 102.992 154.755 176.035 1.00 61.07 N
ATOM 1809 CA ILE C 305 104.213 155.431 176.455 1.00 61.07 C
ATOM 1810 C ILE C 305 103.954 156.926 176.389 1.00 61.07 C
ATOM 1811 O ILE C 305 103.113 157.388 175.615 1.00 61.07 O
ATOM 1812 CB ILE C 305 105.425 155.022 175.579 1.00 61.07 C
ATOM 1813 CG1 ILE C 305 105.801 153.562 175.813 1.00 61.07 C
ATOM 1814 CG2 ILE C 305 106.612 155.923 175.847 1.00 61.07 C
ATOM 1815 CD1 ILE C 305 106.834 153.045 174.850 1.00 61.07 C
ATOM 1816 N VAL C 306 104.673 157.682 177.207 1.00 64.82 N
ATOM 1817 CA VAL C 306 104.551 159.130 177.204 1.00 64.82 C

ATOM 1818 C VAL C 306 105.508 159.706 176.170 1.00 64.82 C
ATOM 1819 O VAL C 306 106.469 159.063 175.744 1.00 64.82 O
ATOM 1820 CB VAL C 306 104.817 159.728 178.595 1.00 64.82 C
ATOM 1821 CG1 VAL C 306 103.708 159.344 179.548 1.00 64.82 C
ATOM 1822 CG2 VAL C 306 106.155 159.259 179.115 1.00 64.82 C
ATOM 1823 N SER C 307 105.240 160.947 175.765 1.00 69.98 N
ATOM 1824 CA SER C 307 106.026 161.571 174.707 1.00 69.98 C
ATOM 1825 C SER C 307 107.300 162.203 175.248 1.00 69.98 C
ATOM 1826 O SER C 307 108.346 162.158 174.590 1.00 69.98 O
ATOM 1827 CB SER C 307 105.183 162.618 173.983 1.00 69.98 C
ATOM 1828 OG SER C 307 104.060 162.024 173.359 1.00 69.98 O
ATOM 1829 N ASP C 308 107.235 162.793 176.439 1.00 70.06 N
ATOM 1830 CA ASP C 308 108.340 163.554 177.007 1.00 70.06 C
ATOM 1831 C ASP C 308 108.530 163.150 178.460 1.00 70.06 C
ATOM 1832 O ASP C 308 107.627 163.341 179.279 1.00 70.06 O
ATOM 1833 CB ASP C 308 108.070 165.057 176.904 1.00 70.06 C
ATOM 1834 CG ASP C 308 109.332 165.863 176.709 1.00 70.06 C
ATOM 1835 OD1 ASP C 308 110.423 165.260 176.660 1.00 70.06 O
ATOM 1836 OD2 ASP C 308 109.231 167.102 176.604 1.00 70.06 O
ATOM 1837 N PHE C 309 109.702 162.598 178.782 1.00 59.40 N
ATOM 1838 CA PHE C 309 110.024 162.319 180.176 1.00 59.40 C
ATOM 1839 C PHE C 309 110.539 163.588 180.837 1.00 59.40 C
ATOM 1840 O PHE C 309 111.564 163.568 181.523 1.00 59.40 O
ATOM 1841 CB PHE C 309 111.080 161.219 180.291 1.00 59.40 C
ATOM 1842 CG PHE C 309 110.662 159.901 179.716 1.00 59.40 C
ATOM 1843 CD1 PHE C 309 109.547 159.243 180.190 1.00 59.40 C
ATOM 1844 CD2 PHE C 309 111.403 159.308 178.711 1.00 59.40 C
ATOM 1845 CE1 PHE C 309 109.174 158.029 179.665 1.00 59.40 C
ATOM 1846 CE2 PHE C 309 111.033 158.094 178.185 1.00 59.40 C
ATOM 1847 CZ PHE C 309 109.918 157.455 178.662 1.00 59.40 C
ATOM 1848 N GLY C 310 109.832 164.692 180.641 1.00 68.78 N
ATOM 1849 CA GLY C 310 110.212 165.970 181.205 1.00 68.78 C
ATOM 1850 C GLY C 310 109.119 166.525 182.087 1.00 68.78 C
ATOM 1851 O GLY C 310 108.847 166.001 183.170 1.00 68.78 O

ATOM 1852 N ARG C 311 108.487 167.593 181.619 1.00 81.62 N
ATOM 1853 CA ARG C 311 107.345 168.203 182.280 1.00 81.62 C
ATOM 1854 C ARG C 311 106.346 167.131 182.698 1.00 81.62 C
ATOM 1855 O ARG C 311 106.266 166.073 182.064 1.00 81.62 O
ATOM 1856 CB ARG C 311 106.686 169.223 181.354 1.00 81.62 C
ATOM 1857 CG ARG C 311 106.581 168.751 179.917 1.00 81.62 C
ATOM 1858 CD ARG C 311 106.375 169.914 178.965 1.00 81.62 C
ATOM 1859 NE ARG C 311 106.074 169.458 177.613 1.00 81.62 N
ATOM 1860 CZ ARG C 311 104.848 169.211 177.167 1.00 81.62 C
ATOM 1861 NH1 ARG C 311 103.804 169.376 177.967 1.00 81.62 N
ATOM 1862 NH2 ARG C 311 104.665 168.799 175.921 1.00 81.62 N
ATOM 1863 N PRO C 312 105.581 167.364 183.759 1.00 83.32 N
ATOM 1864 CA PRO C 312 104.731 166.300 184.309 1.00 83.32 C
ATOM 1865 C PRO C 312 103.739 165.724 183.313 1.00 83.32 C
ATOM 1866 O PRO C 312 103.737 164.514 183.067 1.00 83.32 O
ATOM 1867 CB PRO C 312 104.005 166.997 185.468 1.00 83.32 C
ATOM 1868 CG PRO C 312 104.839 168.191 185.787 1.00 83.32 C
ATOM 1869 CD PRO C 312 105.427 168.631 184.489 1.00 83.32 C
ATOM 1870 N ASN C 313 102.894 166.570 182.732 1.00 86.86 N
ATOM 1871 CA ASN C 313 101.780 166.115 181.905 1.00 86.86 C
ATOM 1872 C ASN C 313 102.146 166.271 180.433 1.00 86.86 C
ATOM 1873 O ASN C 313 102.226 167.393 179.920 1.00 86.86 O
ATOM 1874 CB ASN C 313 100.510 166.893 182.241 1.00 86.86 C
ATOM 1875 CG ASN C 313 99.305 165.992 182.400 1.00 86.86 C
ATOM 1876 OD1 ASN C 313 99.095 165.071 181.612 1.00 86.86 O
ATOM 1877 ND2 ASN C 313 98.506 166.250 183.427 1.00 86.86 N
ATOM 1878 N SER C 314 102.364 165.147 179.757 1.00 80.87 N
ATOM 1879 CA SER C 314 102.682 165.103 178.339 1.00 80.87 C
ATOM 1880 C SER C 314 101.530 164.460 177.570 1.00 80.87 C
ATOM 1881 O SER C 314 100.470 164.158 178.128 1.00 80.87 O
ATOM 1882 CB SER C 314 103.998 164.356 178.117 1.00 80.87 C
ATOM 1883 OG SER C 314 105.060 164.970 178.820 1.00 80.87 O
ATOM 1884 N ALA C 315 101.741 164.253 176.273 1.00 73.95 N
ATOM 1885 CA ALA C 315 100.760 163.625 175.400 1.00 73.95 C

ATOM 1886 C ALA C 315 101.200 162.201 175.091 1.00 73.95 C
ATOM 1887 O ALA C 315 102.327 161.981 174.635 1.00 73.95 O
ATOM 1888 CB ALA C 315 100.589 164.420 174.106 1.00 73.95 C
ATOM 1889 N LEU C 316 100.310 161.243 175.333 1.00 71.05 N
ATOM 1890 CA LEU C 316 100.640 159.836 175.184 1.00 71.05 C
ATOM 1891 C LEU C 316 100.608 159.418 173.715 1.00 71.05 C
ATOM 1892 O LEU C 316 100.223 160.180 172.826 1.00 71.05 O
ATOM 1893 CB LEU C 316 99.680 158.974 176.001 1.00 71.05 C
ATOM 1894 CG LEU C 316 100.122 158.633 177.425 1.00 71.05 C
ATOM 1895 CD1 LEU C 316 100.368 159.896 178.224 1.00 71.05 C
ATOM 1896 CD2 LEU C 316 99.084 157.766 178.108 1.00 71.05 C
ATOM 1897 N GLU C 317 101.022 158.178 173.470 1.00 71.76 N
ATOM 1898 CA GLU C 317 101.035 157.604 172.134 1.00 71.76 C
ATOM 1899 C GLU C 317 101.188 156.097 172.265 1.00 71.76 C
ATOM 1900 O GLU C 317 101.783 155.606 173.226 1.00 71.76 O
ATOM 1901 CB GLU C 317 102.162 158.187 171.280 1.00 71.76 C
ATOM 1902 CG GLU C 317 103.483 157.468 171.443 1.00 71.76 C
ATOM 1903 CD GLU C 317 104.621 158.190 170.759 1.00 71.76 C
ATOM 1904 OE1 GLU C 317 104.494 159.409 170.527 1.00 71.76 O
ATOM 1905 OE2 GLU C 317 105.643 157.541 170.455 1.00 71.76 O
ATOM 1906 N THR C 318 100.651 155.371 171.292 1.00 67.17 N
ATOM 1907 CA THR C 318 100.600 153.919 171.349 1.00 67.17 C
ATOM 1908 C THR C 318 101.673 153.298 170.464 1.00 67.17 C
ATOM 1909 O THR C 318 102.246 153.948 169.587 1.00 67.17 O
ATOM 1910 CB THR C 318 99.218 153.413 170.927 1.00 67.17 C
ATOM 1911 OG1 THR C 318 98.206 154.221 171.540 1.00 67.17 O
ATOM 1912 CG2 THR C 318 99.026 151.971 171.357 1.00 67.17 C
ATOM 1913 N HIS C 319 101.944 152.019 170.713 1.00 64.28 N
ATOM 1914 CA HIS C 319 102.911 151.254 169.941 1.00 64.28 C
ATOM 1915 C HIS C 319 102.305 149.902 169.596 1.00 64.28 C
ATOM 1916 O HIS C 319 101.277 149.500 170.146 1.00 64.28 O
ATOM 1917 CB HIS C 319 104.225 151.068 170.706 1.00 64.28 C
ATOM 1918 CG HIS C 319 105.119 152.265 170.678 1.00 64.28 C
ATOM 1919 ND1 HIS C 319 106.364 152.250 170.088 1.00 64.28 N

ATOM 1920 CD2 HIS C 319 104.953 153.514 171.174 1.00 64.28 C
ATOM 1921 CE1 HIS C 319 106.925 153.438 170.219 1.00 64.28 C
ATOM 1922 NE2 HIS C 319 106.089 154.224 170.874 1.00 64.28 N
ATOM 1923 N ARG C 320 102.957 149.193 168.676 1.00 64.82 N
ATOM 1924 CA ARG C 320 102.468 147.888 168.247 1.00 64.82 C
ATOM 1925 C ARG C 320 103.091 146.753 169.053 1.00 64.82 C
ATOM 1926 O ARG C 320 102.373 145.913 169.603 1.00 64.82 O
ATOM 1927 CB ARG C 320 102.736 147.694 166.753 1.00 64.82 C
ATOM 1928 CG ARG C 320 101.821 146.678 166.086 1.00 64.82 C
ATOM 1929 CD ARG C 320 102.099 146.572 164.594 1.00 64.82 C
ATOM 1930 NE ARG C 320 103.394 145.960 164.315 1.00 64.82 N
ATOM 1931 CZ ARG C 320 103.587 144.653 164.175 1.00 64.82 C
ATOM 1932 NH1 ARG C 320 102.566 143.815 164.287 1.00 64.82 N
ATOM 1933 NH2 ARG C 320 104.801 144.184 163.921 1.00 64.82 N
ATOM 1934 N LEU C 321 104.416 146.711 169.130 1.00 59.61 N
ATOM 1935 CA LEU C 321 105.117 145.736 169.950 1.00 59.61 C
ATOM 1936 C LEU C 321 106.237 146.423 170.717 1.00 59.61 C
ATOM 1937 O LEU C 321 106.869 147.357 170.217 1.00 59.61 O
ATOM 1938 CB LEU C 321 105.694 144.596 169.110 1.00 59.61 C
ATOM 1939 CG LEU C 321 104.708 143.537 168.628 1.00 59.61 C
ATOM 1940 CD1 LEU C 321 105.459 142.346 168.069 1.00 59.61 C
ATOM 1941 CD2 LEU C 321 103.791 143.112 169.753 1.00 59.61 C
ATOM 1942 N VAL C 322 106.483 145.946 171.936 1.00 50.89 N
ATOM 1943 CA VAL C 322 107.549 146.465 172.783 1.00 50.89 C
ATOM 1944 C VAL C 322 108.179 145.301 173.532 1.00 50.89 C
ATOM 1945 O VAL C 322 107.474 144.447 174.077 1.00 50.89 O
ATOM 1946 CB VAL C 322 107.028 147.526 173.768 1.00 50.89 C
ATOM 1947 CG1 VAL C 322 108.185 148.259 174.400 1.00 50.89 C
ATOM 1948 CG2 VAL C 322 106.112 148.496 173.062 1.00 50.89 C
ATOM 1949 N ALA C 323 109.508 145.270 173.562 1.00 48.37 N
ATOM 1950 CA ALA C 323 110.256 144.192 174.189 1.00 48.37 C
ATOM 1951 C ALA C 323 110.909 144.674 175.479 1.00 48.37 C
ATOM 1952 O ALA C 323 111.195 145.862 175.642 1.00 48.37 O
ATOM 1953 CB ALA C 323 111.328 143.644 173.244 1.00 48.37 C

ATOM 1954 N PHE C 324 111.145 143.737 176.395 1.00 45.08 N
ATOM 1955 CA PHE C 324 111.748 144.043 177.687 1.00 45.08 C
ATOM 1956 C PHE C 324 112.685 142.910 178.068 1.00 45.08 C
ATOM 1957 O PHE C 324 112.230 141.794 178.331 1.00 45.08 O
ATOM 1958 CB PHE C 324 110.679 144.230 178.768 1.00 45.08 C
ATOM 1959 CG PHE C 324 109.938 145.533 178.681 1.00 45.08 C
ATOM 1960 CD1 PHE C 324 110.602 146.710 178.407 1.00 45.08 C
ATOM 1961 CD2 PHE C 324 108.573 145.579 178.892 1.00 45.08 C
ATOM 1962 CE1 PHE C 324 109.917 147.902 178.335 1.00 45.08 C
ATOM 1963 CE2 PHE C 324 107.889 146.768 178.820 1.00 45.08 C
ATOM 1964 CZ PHE C 324 108.561 147.930 178.541 1.00 45.08 C
ATOM 1965 N LEU C 325 113.982 143.193 178.105 1.00 45.08 N
ATOM 1966 CA LEU C 325 115.002 142.216 178.480 1.00 45.08 C
ATOM 1967 C LEU C 325 115.667 142.691 179.765 1.00 45.08 C
ATOM 1968 O LEU C 325 116.464 143.632 179.744 1.00 45.08 O
ATOM 1969 CB LEU C 325 116.025 142.039 177.364 1.00 45.08 C
ATOM 1970 CG LEU C 325 117.101 140.985 177.614 1.00 45.08 C
ATOM 1971 CD1 LEU C 325 117.598 140.399 176.315 1.00 45.08 C
ATOM 1972 CD2 LEU C 325 118.250 141.601 178.365 1.00 45.08 C
ATOM 1973 N GLU C 326 115.359 142.035 180.881 1.00 52.92 N
ATOM 1974 CA GLU C 326 115.830 142.473 182.192 1.00 52.92 C
ATOM 1975 C GLU C 326 117.119 141.742 182.542 1.00 52.92 C
ATOM 1976 O GLU C 326 117.107 140.539 182.811 1.00 52.92 O
ATOM 1977 CB GLU C 326 114.761 142.240 183.256 1.00 52.92 C
ATOM 1978 CG GLU C 326 114.262 140.819 183.343 1.00 52.92 C
ATOM 1979 CD GLU C 326 113.419 140.584 184.578 1.00 52.92 C
ATOM 1980 OE1 GLU C 326 113.791 141.093 185.655 1.00 52.92 O
ATOM 1981 OE2 GLU C 326 112.384 139.894 184.472 1.00 52.92 O
ATOM 1982 N ARG C 327 118.223 142.474 182.551 1.00 45.14 N
ATOM 1983 CA ARG C 327 119.528 141.932 182.898 1.00 45.14 C
ATOM 1984 C ARG C 327 119.755 142.097 184.402 1.00 45.14 C
ATOM 1985 O ARG C 327 118.821 142.382 185.156 1.00 45.14 O
ATOM 1986 CB ARG C 327 120.607 142.606 182.050 1.00 45.14 C
ATOM 1987 CG ARG C 327 120.195 142.825 180.613 1.00 45.14 C

ATOM 1988 CD ARG C 327 120.866 144.046 180.031 1.00 45.14 C
ATOM 1989 NE ARG C 327 122.228 143.755 179.603 1.00 45.14 N
ATOM 1990 CZ ARG C 327 123.090 144.677 179.191 1.00 45.14 C
ATOM 1991 NH1 ARG C 327 122.728 145.951 179.152 1.00 45.14 N
ATOM 1992 NH2 ARG C 327 124.312 144.326 178.820 1.00 45.14 N
ATOM 1993 N ALA C 328 120.992 141.904 184.858 1.00 50.67 N
ATOM 1994 CA ALA C 328 121.270 141.913 186.290 1.00 50.67 C
ATOM 1995 C ALA C 328 121.064 143.297 186.895 1.00 50.67 C
ATOM 1996 O ALA C 328 120.446 143.432 187.956 1.00 50.67 O
ATOM 1997 CB ALA C 328 122.695 141.427 186.547 1.00 50.67 C
ATOM 1998 N ASP C 329 121.577 144.339 186.239 1.00 51.23 N
ATOM 1999 CA ASP C 329 121.597 145.678 186.817 1.00 51.23 C
ATOM 2000 C ASP C 329 120.977 146.716 185.889 1.00 51.23 C
ATOM 2001 O ASP C 329 121.396 147.875 185.885 1.00 51.23 O
ATOM 2002 CB ASP C 329 123.025 146.085 187.171 1.00 51.23 C
ATOM 2003 CG ASP C 329 123.910 146.207 185.950 1.00 51.23 C
ATOM 2004 OD1 ASP C 329 123.805 147.224 185.236 1.00 51.23 O
ATOM 2005 OD2 ASP C 329 124.710 145.284 185.699 1.00 51.23 O
ATOM 2006 N SER C 330 119.989 146.324 185.091 1.00 45.18 N
ATOM 2007 CA SER C 330 119.312 147.277 184.222 1.00 45.18 C
ATOM 2008 C SER C 330 118.161 146.614 183.481 1.00 45.18 C
ATOM 2009 O SER C 330 117.913 145.419 183.652 1.00 45.18 O
ATOM 2010 CB SER C 330 120.300 147.896 183.234 1.00 45.18 C
ATOM 2011 OG SER C 330 120.887 146.907 182.411 1.00 45.18 O
ATOM 2012 N VAL C 331 117.443 147.385 182.670 1.00 39.54 N
ATOM 2013 CA VAL C 331 116.383 146.845 181.831 1.00 39.54 C
ATOM 2014 C VAL C 331 116.362 147.604 180.513 1.00 39.54 C
ATOM 2015 O VAL C 331 116.029 148.793 180.478 1.00 39.54 O
ATOM 2016 CB VAL C 331 115.020 146.925 182.540 1.00 39.54 C
ATOM 2017 CG1 VAL C 331 113.904 146.710 181.554 1.00 39.54 C
ATOM 2018 CG2 VAL C 331 114.944 145.901 183.642 1.00 39.54 C
ATOM 2019 N ILE C 332 116.716 146.933 179.422 1.00 36.52 N
ATOM 2020 CA ILE C 332 116.678 147.544 178.103 1.00 36.52 C
ATOM 2021 C ILE C 332 115.288 147.352 177.514 1.00 36.52 C

ATOM 2022 O ILE C 332 114.525 146.481 177.932 1.00 36.52 O
ATOM 2023 CB ILE C 332 117.762 146.968 177.174 1.00 36.52 C
ATOM 2024 CG1 ILE C 332 119.146 147.233 177.742 1.00 36.52 C
ATOM 2025 CG2 ILE C 332 117.691 147.602 175.813 1.00 36.52 C
ATOM 2026 CD1 ILE C 332 120.247 147.003 176.743 1.00 36.52 C
ATOM 2027 N SER C 333 114.949 148.175 176.527 1.00 37.04 N
ATOM 2028 CA SER C 333 113.614 148.121 175.939 1.00 37.04 C
ATOM 2029 C SER C 333 113.630 148.801 174.582 1.00 37.04 C
ATOM 2030 O SER C 333 114.080 149.943 174.469 1.00 37.04 O
ATOM 2031 CB SER C 333 112.600 148.784 176.854 1.00 37.04 C
ATOM 2032 OG SER C 333 111.419 149.099 176.146 1.00 37.04 O
ATOM 2033 N TRP C 334 113.145 148.103 173.563 1.00 44.72 N
ATOM 2034 CA TRP C 334 112.929 148.651 172.234 1.00 44.72 C
ATOM 2035 C TRP C 334 111.556 148.215 171.740 1.00 44.72 C
ATOM 2036 O TRP C 334 110.877 147.398 172.366 1.00 44.72 O
ATOM 2037 CB TRP C 334 114.023 148.195 171.263 1.00 44.72 C
ATOM 2038 CG TRP C 334 114.067 146.714 171.065 1.00 44.72 C
ATOM 2039 CD1 TRP C 334 113.410 146.001 170.114 1.00 44.72 C
ATOM 2040 CD2 TRP C 334 114.810 145.763 171.835 1.00 44.72 C
ATOM 2041 NE1 TRP C 334 113.693 144.664 170.242 1.00 44.72 N
ATOM 2042 CE2 TRP C 334 114.551 144.495 171.293 1.00 44.72 C
ATOM 2043 CE3 TRP C 334 115.668 145.863 172.929 1.00 44.72 C
ATOM 2044 CZ2 TRP C 334 115.117 143.338 171.806 1.00 44.72 C
ATOM 2045 CZ3 TRP C 334 116.228 144.713 173.436 1.00 44.72 C
ATOM 2046 CH2 TRP C 334 115.952 143.468 172.877 1.00 44.72 C
ATOM 2047 N ASP C 335 111.140 148.766 170.606 1.00 53.54 N
ATOM 2048 CA ASP C 335 109.886 148.382 169.973 1.00 53.54 C
ATOM 2049 C ASP C 335 110.189 147.600 168.705 1.00 53.54 C
ATOM 2050 O ASP C 335 111.004 148.032 167.884 1.00 53.54 O
ATOM 2051 CB ASP C 335 109.022 149.603 169.660 1.00 53.54 C
ATOM 2052 CG ASP C 335 109.809 150.723 169.042 1.00 53.54 C
ATOM 2053 OD1 ASP C 335 111.024 150.542 168.827 1.00 53.54 O
ATOM 2054 OD2 ASP C 335 109.216 151.788 168.774 1.00 53.54 O
ATOM 2055 N ILE C 336 109.535 146.450 168.555 1.00 58.48 N

ATOM 2056 CA ILE C 336 109.822 145.510 167.477 1.00 58.48 C
ATOM 2057 C ILE C 336 109.788 146.224 166.135 1.00 58.48 C
ATOM 2058 O ILE C 336 108.787 146.854 165.778 1.00 58.48 O
ATOM 2059 CB ILE C 336 108.833 144.335 167.495 1.00 58.48 C
ATOM 2060 CG1 ILE C 336 108.939 143.572 168.812 1.00 58.48 C
ATOM 2061 CG2 ILE C 336 109.112 143.411 166.339 1.00 58.48 C
ATOM 2062 CD1 ILE C 336 110.263 142.881 169.005 1.00 58.48 C
ATOM 2063 N GLN C 337 110.877 146.122 165.380 1.00 62.06 N
ATOM 2064 CA GLN C 337 110.990 146.788 164.090 1.00 62.06 C
ATOM 2065 C GLN C 337 110.243 145.980 163.032 1.00 62.06 C
ATOM 2066 O GLN C 337 109.499 145.046 163.338 1.00 62.06 O
ATOM 2067 CB GLN C 337 112.457 146.988 163.732 1.00 62.06 C
ATOM 2068 CG GLN C 337 113.257 147.670 164.818 1.00 62.06 C
ATOM 2069 CD GLN C 337 112.943 149.146 164.916 1.00 62.06 C
ATOM 2070 OE1 GLN C 337 113.123 149.763 165.963 1.00 62.06 O
ATOM 2071 NE2 GLN C 337 112.474 149.723 163.818 1.00 62.06 N
ATOM 2072 N ASN C 338 110.432 146.336 161.765 1.00 81.47 N
ATOM 2073 CA ASN C 338 109.752 145.672 160.664 1.00 81.47 C
ATOM 2074 C ASN C 338 110.759 145.274 159.593 1.00 81.47 C
ATOM 2075 O ASN C 338 111.913 145.709 159.600 1.00 81.47 O
ATOM 2076 CB ASN C 338 108.663 146.564 160.064 1.00 81.47 C
ATOM 2077 CG ASN C 338 107.449 146.668 160.957 1.00 81.47 C
ATOM 2078 OD1 ASN C 338 106.840 147.730 161.074 1.00 81.47 O
ATOM 2079 ND2 ASN C 338 107.090 145.562 161.597 1.00 81.47 N
ATOM 2080 N GLU C 339 110.298 144.441 158.663 1.00 88.17 N
ATOM 2081 CA GLU C 339 111.192 143.822 157.694 1.00 88.17 C
ATOM 2082 C GLU C 339 111.709 144.836 156.680 1.00 88.17 C
ATOM 2083 O GLU C 339 110.974 145.713 156.219 1.00 88.17 O
ATOM 2084 CB GLU C 339 110.473 142.683 156.975 1.00 88.17 C
ATOM 2085 CG GLU C 339 110.440 141.382 157.755 1.00 88.17 C
ATOM 2086 CD GLU C 339 111.784 140.681 157.773 1.00 88.17 C
ATOM 2087 OE1 GLU C 339 111.807 139.440 157.913 1.00 88.17 O
ATOM 2088 OE2 GLU C 339 112.816 141.371 157.647 1.00 88.17 O
ATOM 2089 N LYS C 340 112.986 144.703 156.330 1.00 89.84 N

ATOM 2090 CA LYS C 340 113.575 145.505 155.270 1.00 89.84 C
ATOM 2091 C LYS C 340 112.962 145.118 153.923 1.00 89.84 C
ATOM 2092 O LYS C 340 112.133 144.210 153.824 1.00 89.84 O
ATOM 2093 CB LYS C 340 115.090 145.330 155.256 1.00 89.84 C
ATOM 2094 CG LYS C 340 115.770 145.713 156.554 1.00 89.84 C
ATOM 2095 CD LYS C 340 115.756 147.213 156.770 1.00 89.84 C
ATOM 2096 CE LYS C 340 116.900 147.882 156.040 1.00 89.84 C
ATOM 2097 NZ LYS C 340 116.975 149.331 156.362 1.00 89.84 N
ATOM 2098 N ASN C 341 113.369 145.824 152.867 1.00112.01 N
ATOM 2099 CA ASN C 341 112.794 145.633 151.539 1.00112.01 C
ATOM 2100 C ASN C 341 113.801 145.138 150.508 1.00112.01 C
ATOM 2101 O ASN C 341 113.580 144.100 149.877 1.00112.01 O
ATOM 2102 CB ASN C 341 112.149 146.943 151.071 1.00112.01 C
ATOM 2103 CG ASN C 341 111.168 147.493 152.081 1.00112.01 C
ATOM 2104 OD1 ASN C 341 111.542 148.239 152.986 1.00112.01 O
ATOM 2105 ND2 ASN C 341 109.902 147.113 151.943 1.00112.01 N
ATOM 2106 N VAL C 342 114.904 145.858 150.305 1.00113.92 N
ATOM 2107 CA VAL C 342 115.871 145.509 149.269 1.00113.92 C
ATOM 2108 C VAL C 342 117.232 146.057 149.668 1.00113.92 C
ATOM 2109 O VAL C 342 117.339 147.159 150.212 1.00113.92 O
ATOM 2110 CB VAL C 342 115.443 146.057 147.887 1.00113.92 C
ATOM 2111 CG1 VAL C 342 115.197 147.556 147.965 1.00113.92 C
ATOM 2112 CG2 VAL C 342 116.495 145.743 146.836 1.00113.92 C
ATOM 2113 N THR C 343 118.281 145.287 149.381 1.00113.63 N
ATOM 2114 CA THR C 343 119.628 145.654 149.810 1.00113.63 C
ATOM 2115 C THR C 343 120.665 145.362 148.725 1.00113.63 C
ATOM 2116 O THR C 343 121.754 144.852 149.011 1.00113.63 O
ATOM 2117 CB THR C 343 120.000 144.922 151.101 1.00113.63 C
ATOM 2118 OG1 THR C 343 118.856 144.848 151.964 1.00113.63 O
ATOM 2119 CG2 THR C 343 121.120 145.644 151.819 1.00113.63 C
ATOM 2120 N CYS C 344 120.358 145.668 147.466 1.00112.61 N
ATOM 2121 CA CYS C 344 121.348 145.423 146.424 1.00112.61 C
ATOM 2122 C CYS C 344 122.585 146.280 146.674 1.00112.61 C
ATOM 2123 O CYS C 344 122.486 147.405 147.165 1.00112.61 O

ATOM 2124 CB CYS C 344 120.766 145.694 145.031 1.00112.61 C
ATOM 2125 SG CYS C 344 120.071 147.331 144.755 1.00112.61 S
ATOM 2126 N ALA C 345 123.753 145.737 146.334 1.00104.58 N
ATOM 2127 CA ALA C 345 125.039 146.313 146.733 1.00104.58 C
ATOM 2128 C ALA C 345 125.676 147.077 145.573 1.00104.58 C
ATOM 2129 O ALA C 345 126.460 146.536 144.792 1.00104.58 O
ATOM 2130 CB ALA C 345 125.970 145.224 147.251 1.00104.58 C
ATOM 2131 N LEU C 346 125.348 148.365 145.478 1.00101.94 N
ATOM 2132 CA LEU C 346 125.902 149.236 144.448 1.00101.94 C
ATOM 2133 C LEU C 346 126.442 150.503 145.094 1.00101.94 C
ATOM 2134 O LEU C 346 125.732 151.157 145.861 1.00101.94 O
ATOM 2135 CB LEU C 346 124.839 149.583 143.401 1.00101.94 C
ATOM 2136 CG LEU C 346 123.743 150.563 143.826 1.00101.94 C
ATOM 2137 CD1 LEU C 346 124.178 152.000 143.582 1.00101.94 C
ATOM 2138 CD2 LEU C 346 122.428 150.265 143.123 1.00101.94 C
ATOM 2139 N THR C 347 127.693 150.848 144.787 1.00 96.38 N
ATOM 2140 CA THR C 347 128.316 152.017 145.404 1.00 96.38 C
ATOM 2141 C THR C 347 129.060 152.938 144.446 1.00 96.38 C
ATOM 2142 O THR C 347 129.251 154.109 144.788 1.00 96.38 O
ATOM 2143 CB THR C 347 129.282 151.578 146.510 1.00 96.38 C
ATOM 2144 OG1 THR C 347 130.061 150.466 146.054 1.00 96.38 O
ATOM 2145 CG2 THR C 347 128.509 151.170 147.745 1.00 96.38 C
ATOM 2146 N PHE C 348 129.479 152.480 143.269 1.00 92.04 N
ATOM 2147 CA PHE C 348 130.339 153.258 142.377 1.00 92.04 C
ATOM 2148 C PHE C 348 131.650 153.626 143.076 1.00 92.04 C
ATOM 2149 O PHE C 348 131.960 154.793 143.315 1.00 92.04 O
ATOM 2150 CB PHE C 348 129.618 154.507 141.861 1.00 92.04 C
ATOM 2151 CG PHE C 348 130.457 155.357 140.947 1.00 92.04 C
ATOM 2152 CD1 PHE C 348 131.532 154.815 140.267 1.00 92.04 C
ATOM 2153 CD2 PHE C 348 130.172 156.698 140.775 1.00 92.04 C
ATOM 2154 CE1 PHE C 348 132.304 155.592 139.434 1.00 92.04 C
ATOM 2155 CE2 PHE C 348 130.941 157.481 139.940 1.00 92.04 C
ATOM 2156 CZ PHE C 348 132.007 156.926 139.268 1.00 92.04 C
ATOM 2157 N TRP C 349 132.423 152.590 143.403 1.00 91.20 N

ATOM 2158 CA TRP C 349 133.677 152.804 144.115 1.00 91.20 C
ATOM 2159 C TRP C 349 134.652 153.657 143.313 1.00 91.20 C
ATOM 2160 O TRP C 349 135.364 154.485 143.890 1.00 91.20 O
ATOM 2161 CB TRP C 349 134.313 151.461 144.469 1.00 91.20 C
ATOM 2162 CG TRP C 349 135.643 151.582 145.147 1.00 91.20 C
ATOM 2163 CD1 TRP C 349 135.879 151.996 146.424 1.00 91.20 C
ATOM 2164 CD2 TRP C 349 136.923 151.279 144.582 1.00 91.20 C
ATOM 2165 NE1 TRP C 349 137.226 151.971 146.690 1.00 91.20 N
ATOM 2166 CE2 TRP C 349 137.888 151.534 145.574 1.00 91.20 C
ATOM 2167 CE3 TRP C 349 137.347 150.816 143.333 1.00 91.20 C
ATOM 2168 CZ2 TRP C 349 139.251 151.345 145.356 1.00 91.20 C
ATOM 2169 CZ3 TRP C 349 138.699 150.628 143.119 1.00 91.20 C
ATOM 2170 CH2 TRP C 349 139.634 150.892 144.124 1.00 91.20 C
ATOM 2171 N GLU C 350 134.704 153.481 141.995 1.00 93.27 N
ATOM 2172 CA GLU C 350 135.702 154.167 141.180 1.00 93.27 C
ATOM 2173 C GLU C 350 135.314 154.024 139.714 1.00 93.27 C
ATOM 2174 O GLU C 350 134.475 153.196 139.351 1.00 93.27 O
ATOM 2175 CB GLU C 350 137.103 153.603 141.418 1.00 93.27 C
ATOM 2176 CG GLU C 350 138.225 154.422 140.811 1.00 93.27 C
ATOM 2177 CD GLU C 350 138.655 155.564 141.700 1.00 93.27 C
ATOM 2178 OE1 GLU C 350 137.920 155.882 142.657 1.00 93.27 O
ATOM 2179 OE2 GLU C 350 139.731 156.142 141.445 1.00 93.27 O
ATOM 2180 N ALA C 351 135.943 154.840 138.872 1.00 91.27 N
ATOM 2181 CA ALA C 351 135.709 154.757 137.433 1.00 91.27 C
ATOM 2182 C ALA C 351 136.864 155.424 136.709 1.00 91.27 C
ATOM 2183 O ALA C 351 137.056 156.636 136.840 1.00 91.27 O
ATOM 2184 CB ALA C 351 134.386 155.411 137.056 1.00 91.27 C
ATOM 2185 N SER C 352 137.616 154.648 135.941 1.00 91.46 N
ATOM 2186 CA SER C 352 138.709 155.184 135.150 1.00 91.46 C
ATOM 2187 C SER C 352 138.206 155.610 133.774 1.00 91.46 C
ATOM 2188 O SER C 352 137.070 155.333 133.385 1.00 91.46 O
ATOM 2189 CB SER C 352 139.829 154.155 135.020 1.00 91.46 C
ATOM 2190 OG SER C 352 140.689 154.482 133.946 1.00 91.46 O
ATOM 2191 N GLU C 353 139.073 156.298 133.031 1.00 93.87 N

ATOM 2192 CA GLU C 353 138.735 156.789 131.703 1.00 93.87 C
ATOM 2193 C GLU C 353 139.651 156.275 130.603 1.00 93.87 C
ATOM 2194 O GLU C 353 139.381 156.544 129.428 1.00 93.87 O
ATOM 2195 CB GLU C 353 138.749 158.325 131.680 1.00 93.87 C
ATOM 2196 CG GLU C 353 137.424 158.974 132.027 1.00 93.87 C
ATOM 2197 CD GLU C 353 137.525 160.480 132.116 1.00 93.87 C
ATOM 2198 OE1 GLU C 353 136.481 161.154 132.014 1.00 93.87 O
ATOM 2199 OE2 GLU C 353 138.651 160.990 132.294 1.00 93.87 O
ATOM 2200 N ARG C 354 140.724 155.564 130.942 1.00 93.93 N
ATOM 2201 CA ARG C 354 141.534 154.877 129.938 1.00 93.93 C
ATOM 2202 C ARG C 354 142.234 153.717 130.629 1.00 93.93 C
ATOM 2203 O ARG C 354 143.203 153.930 131.362 1.00 93.93 O
ATOM 2204 CB ARG C 354 142.541 155.821 129.295 1.00 93.93 C
ATOM 2205 CG ARG C 354 143.254 155.206 128.097 1.00 93.93 C
ATOM 2206 CD ARG C 354 144.638 155.798 127.889 1.00 93.93 C
ATOM 2207 NE ARG C 354 144.584 157.136 127.309 1.00 93.93 N
ATOM 2208 CZ ARG C 354 144.212 157.395 126.060 1.00 93.93 C
ATOM 2209 NH1 ARG C 354 143.856 156.404 125.253 1.00 93.93 N
ATOM 2210 NH2 ARG C 354 144.194 158.644 125.617 1.00 93.93 N
ATOM 2211 N THR C 355 141.750 152.502 130.392 1.00 91.70 N
ATOM 2212 CA THR C 355 142.290 151.302 131.008 1.00 91.70 C
ATOM 2213 C THR C 355 142.922 150.408 129.949 1.00 91.70 C
ATOM 2214 O THR C 355 142.792 150.640 128.745 1.00 91.70 O
ATOM 2215 CB THR C 355 141.202 150.529 131.760 1.00 91.70 C
ATOM 2216 OG1 THR C 355 141.812 149.530 132.584 1.00 91.70 O
ATOM 2217 CG2 THR C 355 140.263 149.857 130.778 1.00 91.70 C
ATOM 2218 N ILE C 356 143.612 149.371 130.416 1.00 91.75 N
ATOM 2219 CA ILE C 356 144.287 148.411 129.553 1.00 91.75 C
ATOM 2220 C ILE C 356 143.999 147.012 130.075 1.00 91.75 C
ATOM 2221 O ILE C 356 144.175 146.742 131.267 1.00 91.75 O
ATOM 2222 CB ILE C 356 145.803 148.667 129.496 1.00 91.75 C
ATOM 2223 CG1 ILE C 356 146.082 150.103 129.058 1.00 91.75 C
ATOM 2224 CG2 ILE C 356 146.460 147.695 128.549 1.00 91.75 C
ATOM 2225 CD1 ILE C 356 147.547 150.439 128.979 1.00 91.75 C

ATOM 2226 N ARG C 357 143.557 146.126 129.187 1.00 92.35 N
ATOM 2227 CA ARG C 357 143.153 144.773 129.549 1.00 92.35 C
ATOM 2228 C ARG C 357 144.080 143.786 128.857 1.00 92.35 C
ATOM 2229 O ARG C 357 144.156 143.764 127.625 1.00 92.35 O
ATOM 2230 CB ARG C 357 141.698 144.519 129.157 1.00 92.35 C
ATOM 2231 CG ARG C 357 141.187 143.139 129.498 1.00 92.35 C
ATOM 2232 CD ARG C 357 141.334 142.203 128.320 1.00 92.35 C
ATOM 2233 NE ARG C 357 140.411 142.521 127.237 1.00 92.35 N
ATOM 2234 CZ ARG C 357 139.134 142.163 127.219 1.00 92.35 C
ATOM 2235 NH1 ARG C 357 138.365 142.488 126.190 1.00 92.35 N
ATOM 2236 NH2 ARG C 357 138.621 141.483 128.232 1.00 92.35 N
ATOM 2237 N SER C 358 144.779 142.972 129.646 1.00100.09 N
ATOM 2238 CA SER C 358 145.762 142.019 129.129 1.00100.09 C
ATOM 2239 C SER C 358 145.442 140.630 129.675 1.00100.09 C
ATOM 2240 O SER C 358 145.690 140.350 130.851 1.00100.09 O
ATOM 2241 CB SER C 358 147.177 142.440 129.504 1.00100.09 C
ATOM 2242 OG SER C 358 147.515 141.978 130.799 1.00100.09 O
ATOM 2243 N GLU C 359 144.903 139.765 128.822 1.00111.58 N
ATOM 2244 CA GLU C 359 144.568 138.400 129.211 1.00111.58 C
ATOM 2245 C GLU C 359 145.818 137.534 129.142 1.00111.58 C
ATOM 2246 O GLU C 359 146.435 137.419 128.079 1.00111.58 O
ATOM 2247 CB GLU C 359 143.486 137.843 128.292 1.00111.58 C
ATOM 2248 CG GLU C 359 143.858 137.895 126.820 1.00111.58 C
ATOM 2249 CD GLU C 359 143.113 136.869 125.992 1.00111.58 C
ATOM 2250 OE1 GLU C 359 142.909 135.742 126.488 1.00111.58 O
ATOM 2251 OE2 GLU C 359 142.732 137.191 124.847 1.00111.58 O
ATOM 2252 N ALA C 360 146.200 136.922 130.265 1.00116.44 N
ATOM 2253 CA ALA C 360 147.430 136.143 130.243 1.00116.44 C
ATOM 2254 C ALA C 360 147.200 134.655 129.997 1.00116.44 C
ATOM 2255 O ALA C 360 147.565 134.143 128.934 1.00116.44 O
ATOM 2256 CB ALA C 360 148.195 136.341 131.554 1.00116.44 C
ATOM 2257 N GLU C 361 146.585 133.949 130.947 1.00117.36 N
ATOM 2258 CA GLU C 361 146.355 132.519 130.751 1.00117.36 C
ATOM 2259 C GLU C 361 144.886 132.142 130.899 1.00117.36 C

ATOM 2260 O GLU C 361 144.319 131.462 130.038 1.00117.36 O
ATOM 2261 CB GLU C 361 147.206 131.694 131.723 1.00117.36 C
ATOM 2262 CG GLU C 361 146.897 131.903 133.200 1.00117.36 C
ATOM 2263 CD GLU C 361 147.268 133.285 133.691 1.00117.36 C
ATOM 2264 OE1 GLU C 361 148.099 133.943 133.032 1.00117.36 O
ATOM 2265 OE2 GLU C 361 146.731 133.715 134.733 1.00117.36 O
ATOM 2266 N ASP C 362 144.267 132.577 131.998 1.00114.07 N
ATOM 2267 CA ASP C 362 142.878 132.250 132.283 1.00114.07 C
ATOM 2268 C ASP C 362 142.143 133.412 132.935 1.00114.07 C
ATOM 2269 O ASP C 362 140.999 133.236 133.371 1.00114.07 O
ATOM 2270 CB ASP C 362 142.787 131.007 133.178 1.00114.07 C
ATOM 2271 CG ASP C 362 143.452 131.207 134.530 1.00114.07 C
ATOM 2272 OD1 ASP C 362 143.331 132.307 135.111 1.00114.07 O
ATOM 2273 OD2 ASP C 362 144.095 130.255 135.020 1.00114.07 O
ATOM 2274 N SER C 363 142.769 134.578 133.029 1.00109.91 N
ATOM 2275 CA SER C 363 142.188 135.727 133.706 1.00109.91 C
ATOM 2276 C SER C 363 142.532 136.962 132.882 1.00109.91 C
ATOM 2277 O SER C 363 142.952 136.868 131.724 1.00109.91 O
ATOM 2278 CB SER C 363 142.694 135.806 135.154 1.00109.91 C
ATOM 2279 OG SER C 363 142.488 134.580 135.830 1.00109.91 O
ATOM 2280 N TYR C 364 142.351 138.136 133.475 1.00101.53 N
ATOM 2281 CA TYR C 364 142.680 139.394 132.829 1.00101.53 C
ATOM 2282 C TYR C 364 143.527 140.227 133.780 1.00101.53 C
ATOM 2283 O TYR C 364 143.873 139.795 134.883 1.00101.53 O
ATOM 2284 CB TYR C 364 141.412 140.143 132.411 1.00101.53 C
ATOM 2285 CG TYR C 364 140.565 139.386 131.417 1.00101.53 C
ATOM 2286 CD1 TYR C 364 139.653 138.436 131.838 1.00101.53 C
ATOM 2287 CD2 TYR C 364 140.678 139.625 130.059 1.00101.53 C
ATOM 2288 CE1 TYR C 364 138.876 137.746 130.933 1.00101.53 C
ATOM 2289 CE2 TYR C 364 139.909 138.937 129.148 1.00101.53 C
ATOM 2290 CZ TYR C 364 139.009 138.001 129.590 1.00101.53 C
ATOM 2291 OH TYR C 364 138.239 137.314 128.682 1.00101.53 O
ATOM 2292 N HIS C 365 143.871 141.435 133.342 1.00 99.68 N
ATOM 2293 CA HIS C 365 144.663 142.348 134.165 1.00 99.68 C

ATOM 2294 C HIS C 365 144.210 143.768 133.822 1.00 99.68 C
ATOM 2295 O HIS C 365 144.706 144.380 132.875 1.00 99.68 O
ATOM 2296 CB HIS C 365 146.154 142.161 133.929 1.00 99.68 C
ATOM 2297 CG HIS C 365 146.720 140.939 134.582 1.00 99.68 C
ATOM 2298 ND1 HIS C 365 146.242 140.442 135.774 1.00 99.68 N
ATOM 2299 CD2 HIS C 365 147.726 140.114 134.208 1.00 99.68 C
ATOM 2300 CE1 HIS C 365 146.929 139.364 136.108 1.00 99.68 C
ATOM 2301 NE2 HIS C 365 147.836 139.144 135.174 1.00 99.68 N
ATOM 2302 N PHE C 366 143.264 144.276 134.602 1.00 94.58 N
ATOM 2303 CA PHE C 366 142.757 145.627 134.419 1.00 94.58 C
ATOM 2304 C PHE C 366 143.642 146.590 135.197 1.00 94.58 C
ATOM 2305 O PHE C 366 143.700 146.529 136.429 1.00 94.58 O
ATOM 2306 CB PHE C 366 141.306 145.724 134.883 1.00 94.58 C
ATOM 2307 CG PHE C 366 140.362 144.865 134.096 1.00 94.58 C
ATOM 2308 CD1 PHE C 366 139.803 145.327 132.919 1.00 94.58 C
ATOM 2309 CD2 PHE C 366 140.030 143.597 134.536 1.00 94.58 C
ATOM 2310 CE1 PHE C 366 138.934 144.542 132.197 1.00 94.58 C
ATOM 2311 CE2 PHE C 366 139.160 142.808 133.817 1.00 94.58 C
ATOM 2312 CZ PHE C 366 138.612 143.280 132.646 1.00 94.58 C
ATOM 2313 N SER C 367 144.332 147.475 134.479 1.00 94.04 N
ATOM 2314 CA SER C 367 145.290 148.406 135.073 1.00 94.04 C
ATOM 2315 C SER C 367 144.956 149.813 134.591 1.00 94.04 C
ATOM 2316 O SER C 367 145.404 150.229 133.519 1.00 94.04 O
ATOM 2317 CB SER C 367 146.717 148.016 134.717 1.00 94.04 C
ATOM 2318 OG SER C 367 147.022 148.392 133.388 1.00 94.04 O
ATOM 2319 N SER C 368 144.173 150.541 135.384 1.00 97.62 N
ATOM 2320 CA SER C 368 143.854 151.924 135.058 1.00 97.62 C
ATOM 2321 C SER C 368 145.131 152.711 134.804 1.00 97.62 C
ATOM 2322 O SER C 368 146.122 152.567 135.524 1.00 97.62 O
ATOM 2323 CB SER C 368 143.050 152.565 136.190 1.00 97.62 C
ATOM 2324 OG SER C 368 143.584 152.209 137.452 1.00 97.62 O
ATOM 2325 N ALA C 369 145.098 153.568 133.791 1.00 97.90 N
ATOM 2326 CA ALA C 369 146.252 154.387 133.458 1.00 97.90 C
ATOM 2327 C ALA C 369 146.323 155.586 134.380 1.00 97.90 C

ATOM 2328 O ALA C 369 146.711 156.666 133.967 1.00 97.90 O
ATOM 2329 CB ALA C 369 146.192 154.834 132.013 1.00 97.90 C
ATOM 2330 N LYS C 370 145.919 155.387 135.627 1.00100.37 N
ATOM 2331 CA LYS C 370 145.953 156.434 136.648 1.00100.37 C
ATOM 2332 C LYS C 370 146.729 155.965 137.869 1.00100.37 C
ATOM 2333 O LYS C 370 146.843 156.690 138.841 1.00100.37 O
ATOM 2334 CB LYS C 370 144.541 156.813 137.090 1.00100.37 C
ATOM 2335 CG LYS C 370 143.720 157.529 136.038 1.00100.37 C
ATOM 2336 CD LYS C 370 142.603 158.325 136.681 1.00100.37 C
ATOM 2337 CE LYS C 370 142.579 159.745 136.149 1.00100.37 C
ATOM 2338 NZ LYS C 370 143.420 160.658 136.966 1.00100.37 N
ATOM 2339 N MET C 371 147.270 154.751 137.791 1.00101.97 N
ATOM 2340 CA MET C 371 148.041 154.110 138.854 1.00101.97 C
ATOM 2341 C MET C 371 147.284 153.960 140.185 1.00101.97 C
ATOM 2342 O MET C 371 147.890 153.997 141.249 1.00101.97 O
ATOM 2343 CB MET C 371 149.416 154.780 139.050 1.00101.97 C
ATOM 2344 CG MET C 371 150.064 155.363 137.800 1.00101.97 C
ATOM 2345 SD MET C 371 150.448 154.178 136.498 1.00101.97 S
ATOM 2346 CE MET C 371 150.834 155.258 135.126 1.00101.97 C
ATOM 2347 N THR C 372 145.971 153.752 140.125 1.00 97.73 N
ATOM 2348 CA THR C 372 145.177 153.608 141.344 1.00 97.73 C
ATOM 2349 C THR C 372 144.337 152.346 141.487 1.00 97.73 C
ATOM 2350 O THR C 372 143.760 152.133 142.547 1.00 97.73 O
ATOM 2351 CB THR C 372 144.186 154.761 141.506 1.00 97.73 C
ATOM 2352 OG1 THR C 372 143.136 154.614 140.549 1.00 97.73 O
ATOM 2353 CG2 THR C 372 144.866 156.077 141.302 1.00 97.73 C
ATOM 2354 N ALA C 373 144.247 151.522 140.447 1.00 99.02 N
ATOM 2355 CA ALA C 373 143.440 150.308 140.520 1.00 99.02 C
ATOM 2356 C ALA C 373 143.831 149.245 139.507 1.00 99.02 C
ATOM 2357 O ALA C 373 143.583 149.413 138.326 1.00 99.02 O
ATOM 2358 CB ALA C 373 141.967 150.648 140.338 1.00 99.02 C
ATOM 2359 N THR C 374 144.460 148.161 139.964 1.00 97.26 N
ATOM 2360 CA THR C 374 144.843 147.040 139.102 1.00 97.26 C
ATOM 2361 C THR C 374 144.463 145.729 139.784 1.00 97.26 C

ATOM 2362 O THR C 374 145.004 145.431 140.835 1.00 97.26 O
ATOM 2363 CB THR C 374 146.365 146.978 138.813 1.00 97.26 C
ATOM 2364 OG1 THR C 374 147.040 146.244 139.842 1.00 97.26 O
ATOM 2365 CG2 THR C 374 146.992 148.353 138.696 1.00 97.26 C
ATOM 2366 N PHE C 375 143.566 144.936 139.199 1.00 97.47 N
ATOM 2367 CA PHE C 375 143.173 143.664 139.817 1.00 97.47 C
ATOM 2368 C PHE C 375 143.319 142.447 138.907 1.00 97.47 C
ATOM 2369 O PHE C 375 144.059 142.484 137.938 1.00 97.47 O
ATOM 2370 CB PHE C 375 141.743 143.744 140.318 1.00 97.47 C
ATOM 2371 CG PHE C 375 140.977 144.896 139.761 1.00 97.47 C
ATOM 2372 CD1 PHE C 375 141.132 146.159 140.283 1.00 97.47 C
ATOM 2373 CD2 PHE C 375 140.097 144.710 138.726 1.00 97.47 C
ATOM 2374 CE1 PHE C 375 140.430 147.224 139.777 1.00 97.47 C
ATOM 2375 CE2 PHE C 375 139.386 145.767 138.214 1.00 97.47 C
ATOM 2376 CZ PHE C 375 139.554 147.028 138.739 1.00 97.47 C
ATOM 2377 N LEU C 376 142.633 141.358 139.242 1.00 98.78 N
ATOM 2378 CA LEU C 376 142.673 140.143 138.429 1.00 98.78 C
ATOM 2379 C LEU C 376 141.284 139.513 138.444 1.00 98.78 C
ATOM 2380 O LEU C 376 140.868 138.935 139.451 1.00 98.78 O
ATOM 2381 CB LEU C 376 143.729 139.175 138.949 1.00 98.78 C
ATOM 2382 CG LEU C 376 144.112 137.995 138.056 1.00 98.78 C
ATOM 2383 CD1 LEU C 376 145.450 137.424 138.485 1.00 98.78 C
ATOM 2384 CD2 LEU C 376 143.040 136.925 138.100 1.00 98.78 C
ATOM 2385 N SER C 377 140.577 139.623 137.326 1.00102.69 N
ATOM 2386 CA SER C 377 139.242 139.063 137.191 1.00102.69 C
ATOM 2387 C SER C 377 139.330 137.627 136.678 1.00102.69 C
ATOM 2388 O SER C 377 140.403 137.019 136.637 1.00102.69 O
ATOM 2389 CB SER C 377 138.393 139.935 136.273 1.00102.69 C
ATOM 2390 OG SER C 377 137.307 139.194 135.746 1.00102.69 O
ATOM 2391 N LYS C 378 138.190 137.068 136.284 1.00105.58 N
ATOM 2392 CA LYS C 378 138.116 135.710 135.762 1.00105.58 C
ATOM 2393 C LYS C 378 137.363 135.730 134.442 1.00105.58 C
ATOM 2394 O LYS C 378 136.305 136.358 134.338 1.00105.58 O
ATOM 2395 CB LYS C 378 137.427 134.772 136.757 1.00105.58 C

ATOM 2396 CG LYS C 378 138.339 134.264 137.862 1.00105.58 C
ATOM 2397 CD LYS C 378 137.618 133.274 138.760 1.00105.58 C
ATOM 2398 CE LYS C 378 136.652 132.409 137.969 1.00105.58 C
ATOM 2399 NZ LYS C 378 137.318 131.744 136.816 1.00105.58 N
ATOM 2400 N LYS C 379 137.900 135.031 133.443 1.00110.70 N
ATOM 2401 CA LYS C 379 137.376 135.085 132.078 1.00110.70 C
ATOM 2402 C LYS C 379 136.069 134.302 132.003 1.00110.70 C
ATOM 2403 O LYS C 379 136.015 133.151 131.564 1.00110.70 O
ATOM 2404 CB LYS C 379 138.400 134.545 131.089 1.00110.70 C
ATOM 2405 CG LYS C 379 138.932 133.166 131.434 1.00110.70 C
ATOM 2406 CD LYS C 379 139.822 132.630 130.326 1.00110.70 C
ATOM 2407 CE LYS C 379 140.884 133.644 129.936 1.00110.70 C
ATOM 2408 NZ LYS C 379 141.693 133.182 128.777 1.00110.70 N
ATOM 2409 N GLN C 380 134.991 134.950 132.435 1.00109.74 N
ATOM 2410 CA GLN C 380 133.667 134.339 132.370 1.00109.74 C
ATOM 2411 C GLN C 380 132.628 135.449 132.438 1.00109.74 C
ATOM 2412 O GLN C 380 132.488 136.098 133.480 1.00109.74 O
ATOM 2413 CB GLN C 380 133.478 133.337 133.501 1.00109.74 C
ATOM 2414 CG GLN C 380 133.952 131.935 133.176 1.00109.74 C
ATOM 2415 CD GLN C 380 133.071 131.248 132.156 1.00109.74 C
ATOM 2416 OE1 GLN C 380 132.262 131.889 131.486 1.00109.74 O
ATOM 2417 NE2 GLN C 380 133.220 129.934 132.033 1.00109.74 N
ATOM 2418 N GLU C 381 131.910 135.668 131.339 1.00107.99 N
ATOM 2419 CA GLU C 381 130.800 136.608 131.363 1.00107.99 C
ATOM 2420 C GLU C 381 129.823 136.220 132.463 1.00107.99 C
ATOM 2421 O GLU C 381 129.689 135.045 132.814 1.00107.99 O
ATOM 2422 CB GLU C 381 130.093 136.637 130.008 1.00107.99 C
ATOM 2423 CG GLU C 381 130.919 137.248 128.891 1.00107.99 C
ATOM 2424 CD GLU C 381 130.708 138.742 128.756 1.00107.99 C
ATOM 2425 OE1 GLU C 381 129.603 139.221 129.086 1.00107.99 O
ATOM 2426 OE2 GLU C 381 131.647 139.439 128.317 1.00107.99 O
ATOM 2427 N VAL C 382 129.138 137.217 133.015 1.00111.53 N
ATOM 2428 CA VAL C 382 128.263 136.980 134.157 1.00111.53 C
ATOM 2429 C VAL C 382 126.829 137.336 133.787 1.00111.53 C

ATOM 2430 O VAL C 382 126.057 137.806 134.628 1.00111.53 O
ATOM 2431 CB VAL C 382 128.741 137.761 135.397 1.00111.53 C
ATOM 2432 CG1 VAL C 382 128.744 139.250 135.126 1.00111.53 C
ATOM 2433 CG2 VAL C 382 127.895 137.420 136.615 1.00111.53 C
ATOM 2434 N ASN C 383 126.465 137.123 132.522 1.00122.87 N
ATOM 2435 CA ASN C 383 125.074 137.226 132.087 1.00122.87 C
ATOM 2436 C ASN C 383 124.514 138.625 132.367 1.00122.87 C
ATOM 2437 O ASN C 383 123.644 138.827 133.214 1.00122.87 O
ATOM 2438 CB ASN C 383 124.223 136.142 132.756 1.00122.87 C
ATOM 2439 CG ASN C 383 124.556 134.754 132.257 1.00122.87 C
ATOM 2440 OD1 ASN C 383 124.737 134.542 131.059 1.00122.87 O
ATOM 2441 ND2 ASN C 383 124.647 133.800 133.175 1.00122.87 N
ATOM 2442 N MET C 384 125.057 139.590 131.626 1.00116.33 N
ATOM 2443 CA MET C 384 124.721 141.001 131.797 1.00116.33 C
ATOM 2444 C MET C 384 123.224 141.231 131.968 1.00116.33 C
ATOM 2445 O MET C 384 122.815 142.225 132.576 1.00116.33 O
ATOM 2446 CB MET C 384 125.233 141.809 130.603 1.00116.33 C
ATOM 2447 CG MET C 384 124.511 143.130 130.378 1.00116.33 C
ATOM 2448 SD MET C 384 125.030 144.426 131.514 1.00116.33 S
ATOM 2449 CE MET C 384 124.314 145.864 130.726 1.00116.33 C
ATOM 2450 N SER C 385 122.396 140.328 131.441 1.00128.41 N
ATOM 2451 CA SER C 385 120.949 140.419 131.587 1.00128.41 C
ATOM 2452 C SER C 385 120.412 139.468 132.654 1.00128.41 C
ATOM 2453 O SER C 385 119.301 138.944 132.518 1.00128.41 O
ATOM 2454 CB SER C 385 120.266 140.157 130.245 1.00128.41 C
ATOM 2455 OG SER C 385 120.903 140.875 129.203 1.00128.41 O
ATOM 2456 N ASP C 386 121.179 139.240 133.715 1.00124.81 N
ATOM 2457 CA ASP C 386 120.787 138.331 134.781 1.00124.81 C
ATOM 2458 C ASP C 386 120.056 139.083 135.891 1.00124.81 C
ATOM 2459 O ASP C 386 120.100 140.312 135.984 1.00124.81 O
ATOM 2460 CB ASP C 386 122.015 137.607 135.336 1.00124.81 C
ATOM 2461 CG ASP C 386 121.653 136.495 136.298 1.00124.81 C
ATOM 2462 OD1 ASP C 386 121.061 136.793 137.356 1.00124.81 O
ATOM 2463 OD2 ASP C 386 121.958 135.323 135.994 1.00124.81 O

ATOM 2464 N SER C 387 119.370 138.320 136.741 1.00126.07 N
ATOM 2465 CA SER C 387 118.581 138.866 137.844 1.00126.07 C
ATOM 2466 C SER C 387 119.403 138.754 139.125 1.00126.07 C
ATOM 2467 O SER C 387 119.095 137.975 140.027 1.00126.07 O
ATOM 2468 CB SER C 387 117.245 138.137 137.969 1.00126.07 C
ATOM 2469 OG SER C 387 117.428 136.732 137.970 1.00126.07 O
ATOM 2470 N ALA C 388 120.464 139.553 139.196 1.00121.05 N
ATOM 2471 CA ALA C 388 121.233 139.714 140.421 1.00121.05 C
ATOM 2472 C ALA C 388 121.618 141.155 140.703 1.00121.05 C
ATOM 2473 O ALA C 388 122.051 141.446 141.821 1.00121.05 O
ATOM 2474 CB ALA C 388 122.506 138.859 140.377 1.00121.05 C
ATOM 2475 N LEU C 389 121.485 142.062 139.730 1.00116.48 N
ATOM 2476 CA LEU C 389 121.828 143.469 139.895 1.00116.48 C
ATOM 2477 C LEU C 389 120.781 144.383 139.265 1.00116.48 C
ATOM 2478 O LEU C 389 121.081 145.549 138.972 1.00116.48 O
ATOM 2479 CB LEU C 389 123.210 143.753 139.291 1.00116.48 C
ATOM 2480 CG LEU C 389 123.413 143.234 137.866 1.00116.48 C
ATOM 2481 CD1 LEU C 389 122.823 144.184 136.836 1.00116.48 C
ATOM 2482 CD2 LEU C 389 124.888 142.990 137.592 1.00116.48 C
ATOM 2483 N ASP C 390 119.563 143.878 139.051 1.00116.13 N
ATOM 2484 CA ASP C 390 118.533 144.597 138.310 1.00116.13 C
ATOM 2485 C ASP C 390 118.296 146.003 138.837 1.00116.13 C
ATOM 2486 O ASP C 390 117.765 146.842 138.102 1.00116.13 O
ATOM 2487 CB ASP C 390 117.233 143.793 138.341 1.00116.13 C
ATOM 2488 CG ASP C 390 117.322 142.520 137.526 1.00116.13 C
ATOM 2489 OD1 ASP C 390 118.062 142.511 136.519 1.00116.13 O
ATOM 2490 OD2 ASP C 390 116.657 141.528 137.891 1.00116.13 O
ATOM 2491 N CYS C 391 118.678 146.285 140.080 1.00113.78 N
ATOM 2492 CA CYS C 391 118.512 147.634 140.600 1.00113.78 C
ATOM 2493 C CYS C 391 119.484 148.589 139.919 1.00113.78 C
ATOM 2494 O CYS C 391 119.068 149.532 139.240 1.00113.78 O
ATOM 2495 CB CYS C 391 118.674 147.637 142.126 1.00113.78 C
ATOM 2496 SG CYS C 391 120.346 147.588 142.766 1.00113.78 S
ATOM 2497 N VAL C 392 120.784 148.346 140.064 1.00109.58 N

ATOM 2498 CA VAL C 392 121.795 149.100 139.296 1.00109.58 C
ATOM 2499 C VAL C 392 122.092 148.277 138.046 1.00109.58 C
ATOM 2500 O VAL C 392 123.045 147.500 137.970 1.00109.58 O
ATOM 2501 CB VAL C 392 123.047 149.409 140.126 1.00109.58 C
ATOM 2502 CG1 VAL C 392 123.792 148.136 140.485 1.00109.58 C
ATOM 2503 CG2 VAL C 392 123.959 150.356 139.370 1.00109.58 C
ATOM 2504 N ARG C 393 121.240 148.449 137.033 1.00107.49 N
ATOM 2505 CA ARG C 393 121.504 147.864 135.725 1.00107.49 C
ATOM 2506 C ARG C 393 121.128 148.809 134.591 1.00107.49 C
ATOM 2507 O ARG C 393 121.220 148.418 133.421 1.00107.49 O
ATOM 2508 CB ARG C 393 120.765 146.532 135.557 1.00107.49 C
ATOM 2509 CG ARG C 393 121.238 145.710 134.369 1.00107.49 C
ATOM 2510 CD ARG C 393 120.301 144.550 134.083 1.00107.49 C
ATOM 2511 NE ARG C 393 119.002 145.007 133.601 1.00107.49 N
ATOM 2512 CZ ARG C 393 118.800 145.548 132.404 1.00107.49 C
ATOM 2513 NH1 ARG C 393 117.586 145.939 132.041 1.00107.49 N
ATOM 2514 NH2 ARG C 393 119.816 145.703 131.567 1.00107.49 N
ATOM 2515 N ASP C 394 120.701 150.032 134.897 1.00101.94 N
ATOM 2516 CA ASP C 394 120.417 151.019 133.867 1.00101.94 C
ATOM 2517 C ASP C 394 121.029 152.369 134.215 1.00101.94 C
ATOM 2518 O ASP C 394 120.733 153.362 133.540 1.00101.94 O
ATOM 2519 CB ASP C 394 118.906 151.166 133.659 1.00101.94 C
ATOM 2520 CG ASP C 394 118.562 151.942 132.404 1.00101.94 C
ATOM 2521 OD1 ASP C 394 118.607 151.346 131.311 1.00101.94 O
ATOM 2522 OD2 ASP C 394 118.253 153.148 132.509 1.00101.94 O
ATOM 2523 N GLU C 395 121.867 152.434 135.247 1.00 99.53 N
ATOM 2524 CA GLU C 395 122.539 153.660 135.654 1.00 99.53 C
ATOM 2525 C GLU C 395 123.980 153.714 135.167 1.00 99.53 C
ATOM 2526 O GLU C 395 124.398 154.710 134.573 1.00 99.53 O
ATOM 2527 CB GLU C 395 122.500 153.796 137.181 1.00 99.53 C
ATOM 2528 CG GLU C 395 123.569 154.707 137.759 1.00 99.53 C
ATOM 2529 CD GLU C 395 123.534 156.095 137.162 1.00 99.53 C
ATOM 2530 OE1 GLU C 395 122.532 156.431 136.496 1.00 99.53 O
ATOM 2531 OE2 GLU C 395 124.509 156.849 137.358 1.00 99.53 O

ATOM 2532 N ALA C 396 124.753 152.655 135.414 1.00 96.08 N
ATOM 2533 CA ALA C 396 126.133 152.631 134.946 1.00 96.08 C
ATOM 2534 C ALA C 396 126.209 152.836 133.440 1.00 96.08 C
ATOM 2535 O ALA C 396 127.145 153.466 132.940 1.00 96.08 O
ATOM 2536 CB ALA C 396 126.799 151.315 135.344 1.00 96.08 C
ATOM 2537 N ILE C 397 125.230 152.313 132.700 1.00 95.14 N
ATOM 2538 CA ILE C 397 125.252 152.443 131.246 1.00 95.14 C
ATOM 2539 C ILE C 397 125.217 153.909 130.835 1.00 95.14 C
ATOM 2540 O ILE C 397 125.945 154.333 129.931 1.00 95.14 O
ATOM 2541 CB ILE C 397 124.091 151.652 130.619 1.00 95.14 C
ATOM 2542 CG1 ILE C 397 124.455 150.172 130.511 1.00 95.14 C
ATOM 2543 CG2 ILE C 397 123.731 152.224 129.259 1.00 95.14 C
ATOM 2544 CD1 ILE C 397 123.351 149.318 129.942 1.00 95.14 C
ATOM 2545 N ASN C 398 124.373 154.707 131.488 1.00 94.06 N
ATOM 2546 CA ASN C 398 124.272 156.112 131.112 1.00 94.06 C
ATOM 2547 C ASN C 398 125.529 156.880 131.495 1.00 94.06 C
ATOM 2548 O ASN C 398 126.023 157.699 130.713 1.00 94.06 O
ATOM 2549 CB ASN C 398 123.038 156.741 131.751 1.00 94.06 C
ATOM 2550 CG ASN C 398 121.795 156.553 130.912 1.00 94.06 C
ATOM 2551 OD1 ASN C 398 121.733 155.658 130.069 1.00 94.06 O
ATOM 2552 ND2 ASN C 398 120.797 157.397 131.133 1.00 94.06 N
ATOM 2553 N LYS C 399 126.061 156.632 132.692 1.00 94.89 N
ATOM 2554 CA LYS C 399 127.309 157.278 133.088 1.00 94.89 C
ATOM 2555 C LYS C 399 128.436 156.917 132.130 1.00 94.89 C
ATOM 2556 O LYS C 399 129.291 157.752 131.815 1.00 94.89 O
ATOM 2557 CB LYS C 399 127.670 156.878 134.516 1.00 94.89 C
ATOM 2558 CG LYS C 399 128.870 157.606 135.086 1.00 94.89 C
ATOM 2559 CD LYS C 399 129.270 157.017 136.428 1.00 94.89 C
ATOM 2560 CE LYS C 399 128.063 156.843 137.333 1.00 94.89 C
ATOM 2561 NZ LYS C 399 128.315 155.849 138.411 1.00 94.89 N
ATOM 2562 N LEU C 400 128.433 155.682 131.631 1.00 94.89 N
ATOM 2563 CA LEU C 400 129.483 155.229 130.727 1.00 94.89 C
ATOM 2564 C LEU C 400 129.343 155.877 129.355 1.00 94.89 C
ATOM 2565 O LEU C 400 130.329 156.346 128.772 1.00 94.89 O

ATOM 2566 CB LEU C 400 129.435 153.706 130.628 1.00 94.89 C
ATOM 2567 CG LEU C 400 130.389 152.982 129.693 1.00 94.89 C
ATOM 2568 CD1 LEU C 400 130.660 151.596 130.238 1.00 94.89 C
ATOM 2569 CD2 LEU C 400 129.779 152.906 128.311 1.00 94.89 C
ATOM 2570 N GLN C 401 128.122 155.904 128.817 1.00 95.22 N
ATOM 2571 CA GLN C 401 127.882 156.637 127.580 1.00 95.22 C
ATOM 2572 C GLN C 401 128.292 158.096 127.723 1.00 95.22 C
ATOM 2573 O GLN C 401 128.824 158.694 126.782 1.00 95.22 O
ATOM 2574 CB GLN C 401 126.412 156.535 127.181 1.00 95.22 C
ATOM 2575 CG GLN C 401 126.009 155.169 126.671 1.00 95.22 C
ATOM 2576 CD GLN C 401 126.586 154.872 125.308 1.00 95.22 C
ATOM 2577 OE1 GLN C 401 126.284 155.555 124.332 1.00 95.22 O
ATOM 2578 NE2 GLN C 401 127.428 153.850 125.234 1.00 95.22 N
ATOM 2579 N GLN C 402 128.053 158.686 128.894 1.00 93.67 N
ATOM 2580 CA GLN C 402 128.455 160.070 129.116 1.00 93.67 C
ATOM 2581 C GLN C 402 129.972 160.209 129.097 1.00 93.67 C
ATOM 2582 O GLN C 402 130.508 161.129 128.470 1.00 93.67 O
ATOM 2583 CB GLN C 402 127.879 160.572 130.439 1.00 93.67 C
ATOM 2584 CG GLN C 402 127.982 162.071 130.642 1.00 93.67 C
ATOM 2585 CD GLN C 402 129.336 162.491 131.170 1.00 93.67 C
ATOM 2586 OE1 GLN C 402 130.010 161.725 131.858 1.00 93.67 O
ATOM 2587 NE2 GLN C 402 129.746 163.710 130.848 1.00 93.67 N
ATOM 2588 N ILE C 403 130.679 159.309 129.782 1.00 91.63 N
ATOM 2589 CA ILE C 403 132.139 159.352 129.770 1.00 91.63 C
ATOM 2590 C ILE C 403 132.673 159.204 128.355 1.00 91.63 C
ATOM 2591 O ILE C 403 133.697 159.802 128.003 1.00 91.63 O
ATOM 2592 CB ILE C 403 132.723 158.267 130.694 1.00 91.63 C
ATOM 2593 CG1 ILE C 403 132.501 158.630 132.162 1.00 91.63 C
ATOM 2594 CG2 ILE C 403 134.201 158.082 130.414 1.00 91.63 C
ATOM 2595 CD1 ILE C 403 133.084 157.622 133.128 1.00 91.63 C
ATOM 2596 N PHE C 404 132.003 158.405 127.524 1.00 94.30 N
ATOM 2597 CA PHE C 404 132.529 158.131 126.191 1.00 94.30 C
ATOM 2598 C PHE C 404 132.210 159.248 125.205 1.00 94.30 C
ATOM 2599 O PHE C 404 133.038 159.573 124.348 1.00 94.30 O

```
ATOM   2600  CB  PHE C 404     131.987 156.800 125.673  1.00 94.30           C
ATOM   2601  CG  PHE C 404     132.114 156.628 124.188  1.00 94.30           C
ATOM   2602  CD1 PHE C 404     133.312 156.240 123.622  1.00 94.30           C
ATOM   2603  CD2 PHE C 404     131.029 156.845 123.359  1.00 94.30           C
ATOM   2604  CE1 PHE C 404     133.427 156.080 122.258  1.00 94.30           C
ATOM   2605  CE2 PHE C 404     131.140 156.686 121.996  1.00 94.30           C
ATOM   2606  CZ  PHE C 404     132.340 156.303 121.445  1.00 94.30           C
ATOM   2607  N   ASN C 405     131.023 159.845 125.300  1.00 99.81           N
ATOM   2608  CA  ASN C 405     130.603 160.886 124.371  1.00 99.81           C
ATOM   2609  C   ASN C 405     131.115 162.266 124.754  1.00 99.81           C
ATOM   2610  O   ASN C 405     130.573 163.268 124.273  1.00 99.81           O
ATOM   2611  CB  ASN C 405     129.075 160.913 124.265  1.00 99.81           C
ATOM   2612  CG  ASN C 405     128.546 159.953 123.216  1.00 99.81           C
ATOM   2613  OD1 ASN C 405     129.056 158.847 123.058  1.00 99.81           O
ATOM   2614  ND2 ASN C 405     127.510 160.371 122.499  1.00 99.81           N
ATOM   2615  N   THR C 406     132.139 162.347 125.599  1.00 97.17           N
ATOM   2616  CA  THR C 406     132.665 163.627 126.053  1.00 97.17           C
ATOM   2617  C   THR C 406     134.138 163.842 125.746  1.00 97.17           C
ATOM   2618  O   THR C 406     134.570 165.000 125.703  1.00 97.17           O
ATOM   2619  CB  THR C 406     132.451 163.786 127.566  1.00 97.17           C
ATOM   2620  OG1 THR C 406     131.055 163.673 127.865  1.00 97.17           O
ATOM   2621  CG2 THR C 406     132.956 165.140 128.040  1.00 97.17           C
ATOM   2622  N   SER C 407     134.916 162.792 125.525  1.00 95.68           N
ATOM   2623  CA  SER C 407     136.337 162.928 125.225  1.00 95.68           C
ATOM   2624  C   SER C 407     136.735 162.252 123.922  1.00 95.68           C
ATOM   2625  O   SER C 407     137.585 162.777 123.200  1.00 95.68           O
ATOM   2626  CB  SER C 407     137.175 162.355 126.379  1.00 95.68           C
ATOM   2627  OG  SER C 407     136.808 162.943 127.615  1.00 95.68           O
ATOM   2628  N   TYR C 408     136.147 161.104 123.606  1.00 94.77           N
ATOM   2629  CA  TYR C 408     136.449 160.395 122.365  1.00 94.77           C
ATOM   2630  C   TYR C 408     135.394 160.747 121.318  1.00 94.77           C
ATOM   2631  O   TYR C 408     134.578 159.929 120.896  1.00 94.77           O
ATOM   2632  CB  TYR C 408     136.525 158.895 122.621  1.00 94.77           C
ATOM   2633  CG  TYR C 408     137.360 158.524 123.828  1.00 94.77           C
```

ATOM 2634 CD1 TYR C 408 138.393 159.342 124.263 1.00 94.77 C
ATOM 2635 CD2 TYR C 408 137.107 157.363 124.540 1.00 94.77 C
ATOM 2636 CE1 TYR C 408 139.152 159.008 125.365 1.00 94.77 C
ATOM 2637 CE2 TYR C 408 137.863 157.022 125.642 1.00 94.77 C
ATOM 2638 CZ TYR C 408 138.883 157.847 126.050 1.00 94.77 C
ATOM 2639 OH TYR C 408 139.636 157.511 127.149 1.00 94.77 O
ATOM 2640 N ASN C 409 135.434 162.011 120.900 1.00101.56 N
ATOM 2641 CA ASN C 409 134.412 162.566 120.022 1.00101.56 C
ATOM 2642 C ASN C 409 134.356 161.857 118.675 1.00101.56 C
ATOM 2643 O ASN C 409 133.357 161.206 118.351 1.00101.56 O
ATOM 2644 CB ASN C 409 134.661 164.061 119.814 1.00101.56 C
ATOM 2645 CG ASN C 409 136.105 164.367 119.449 1.00101.56 C
ATOM 2646 OD1 ASN C 409 136.534 164.129 118.321 1.00101.56 O
ATOM 2647 ND2 ASN C 409 136.859 164.894 120.406 1.00101.56 N
ATOM 2648 N GLN C 410 135.429 161.972 117.888 1.00106.84 N
ATOM 2649 CA GLN C 410 135.453 161.421 116.541 1.00106.84 C
ATOM 2650 C GLN C 410 136.752 160.707 116.197 1.00106.84 C
ATOM 2651 O GLN C 410 136.895 160.244 115.060 1.00106.84 O
ATOM 2652 CB GLN C 410 135.197 162.528 115.505 1.00106.84 C
ATOM 2653 CG GLN C 410 133.779 163.075 115.517 1.00106.84 C
ATOM 2654 CD GLN C 410 133.685 164.445 116.157 1.00106.84 C
ATOM 2655 OE1 GLN C 410 134.629 164.911 116.796 1.00106.84 O
ATOM 2656 NE2 GLN C 410 132.543 165.101 115.986 1.00106.84 N
ATOM 2657 N THR C 411 137.699 160.602 117.129 1.00100.26 N
ATOM 2658 CA THR C 411 138.940 159.895 116.847 1.00100.26 C
ATOM 2659 C THR C 411 138.795 158.399 117.091 1.00100.26 C
ATOM 2660 O THR C 411 139.337 157.589 116.331 1.00100.26 O
ATOM 2661 CB THR C 411 140.073 160.460 117.702 1.00100.26 C
ATOM 2662 OG1 THR C 411 139.964 159.949 119.035 1.00100.26 O
ATOM 2663 CG2 THR C 411 139.993 161.975 117.744 1.00100.26 C
ATOM 2664 N TYR C 412 138.070 158.015 118.136 1.00 96.12 N
ATOM 2665 CA TYR C 412 137.914 156.620 118.516 1.00 96.12 C
ATOM 2666 C TYR C 412 136.547 156.088 118.094 1.00 96.12 C
ATOM 2667 O TYR C 412 135.679 156.822 117.618 1.00 96.12 O

```
ATOM   2668  CB  TYR C 412     138.107 156.455 120.025  1.00 96.12           C
ATOM   2669  CG  TYR C 412     139.544 156.570 120.478  1.00 96.12           C
ATOM   2670  CD1 TYR C 412     140.415 155.496 120.367  1.00 96.12           C
ATOM   2671  CD2 TYR C 412     140.028 157.750 121.021  1.00 96.12           C
ATOM   2672  CE1 TYR C 412     141.726 155.595 120.782  1.00 96.12           C
ATOM   2673  CE2 TYR C 412     141.337 157.857 121.438  1.00 96.12           C
ATOM   2674  CZ  TYR C 412     142.181 156.778 121.316  1.00 96.12           C
ATOM   2675  OH  TYR C 412     143.488 156.880 121.731  1.00 96.12           O
ATOM   2676  N   GLU C 413     136.370 154.782 118.280  1.00 97.58           N
ATOM   2677  CA  GLU C 413     135.133 154.102 117.914  1.00 97.58           C
ATOM   2678  C   GLU C 413     134.616 153.269 119.078  1.00 97.58           C
ATOM   2679  O   GLU C 413     135.115 153.384 120.202  1.00 97.58           O
ATOM   2680  CB  GLU C 413     135.353 153.217 116.688  1.00 97.58           C
ATOM   2681  CG  GLU C 413     135.462 153.977 115.384  1.00 97.58           C
ATOM   2682  CD  GLU C 413     134.113 154.406 114.850  1.00 97.58           C
ATOM   2683  OE1 GLU C 413     133.147 153.626 114.982  1.00 97.58           O
ATOM   2684  OE2 GLU C 413     134.017 155.521 114.299  1.00 97.58           O
ATOM   2685  N   LYS C 414     133.613 152.432 118.826  1.00 92.57           N
ATOM   2686  CA  LYS C 414     133.084 151.510 119.824  1.00 92.57           C
ATOM   2687  C   LYS C 414     133.206 150.099 119.270  1.00 92.57           C
ATOM   2688  O   LYS C 414     132.522 149.746 118.304  1.00 92.57           O
ATOM   2689  CB  LYS C 414     131.637 151.847 120.175  1.00 92.57           C
ATOM   2690  CG  LYS C 414     131.491 153.039 121.105  1.00 92.57           C
ATOM   2691  CD  LYS C 414     130.031 153.324 121.409  1.00 92.57           C
ATOM   2692  CE  LYS C 414     129.305 152.062 121.840  1.00 92.57           C
ATOM   2693  NZ  LYS C 414     127.828 152.237 121.814  1.00 92.57           N
ATOM   2694  N   TYR C 415     134.073 149.296 119.880  1.00 95.72           N
ATOM   2695  CA  TYR C 415     134.374 147.948 119.401  1.00 95.72           C
ATOM   2696  C   TYR C 415     133.636 146.949 120.284  1.00 95.72           C
ATOM   2697  O   TYR C 415     134.144 146.503 121.313  1.00 95.72           O
ATOM   2698  CB  TYR C 415     135.879 147.704 119.406  1.00 95.72           C
ATOM   2699  CG  TYR C 415     136.276 146.248 119.363  1.00 95.72           C
ATOM   2700  CD1 TYR C 415     135.717 145.383 118.436  1.00 95.72           C
ATOM   2701  CD2 TYR C 415     137.219 145.742 120.246  1.00 95.72           C
```

ATOM 2702 CE1 TYR C 415 136.082 144.052 118.392 1.00 95.72 C
ATOM 2703 CE2 TYR C 415 137.590 144.414 120.210 1.00 95.72 C
ATOM 2704 CZ TYR C 415 137.019 143.572 119.281 1.00 95.72 C
ATOM 2705 OH TYR C 415 137.384 142.247 119.240 1.00 95.72 O
ATOM 2706 N GLY C 416 132.420 146.598 119.874 1.00 98.82 N
ATOM 2707 CA GLY C 416 131.642 145.604 120.587 1.00 98.82 C
ATOM 2708 C GLY C 416 130.460 146.179 121.337 1.00 98.82 C
ATOM 2709 O GLY C 416 129.744 147.045 120.826 1.00 98.82 O
ATOM 2710 N ASN C 417 130.244 145.697 122.556 1.00104.28 N
ATOM 2711 CA ASN C 417 129.171 146.192 123.401 1.00104.28 C
ATOM 2712 C ASN C 417 129.542 145.925 124.851 1.00104.28 C
ATOM 2713 O ASN C 417 130.508 145.215 125.147 1.00104.28 O
ATOM 2714 CB ASN C 417 127.831 145.545 123.044 1.00104.28 C
ATOM 2715 CG ASN C 417 127.835 144.052 123.263 1.00104.28 C
ATOM 2716 OD1 ASN C 417 128.815 143.374 122.961 1.00104.28 O
ATOM 2717 ND2 ASN C 417 126.736 143.528 123.791 1.00104.28 N
ATOM 2718 N VAL C 418 128.758 146.502 125.762 1.00 93.80 N
ATOM 2719 CA VAL C 418 129.092 146.429 127.176 1.00 93.80 C
ATOM 2720 C VAL C 418 129.080 144.978 127.639 1.00 93.80 C
ATOM 2721 O VAL C 418 128.301 144.147 127.153 1.00 93.80 O
ATOM 2722 CB VAL C 418 128.126 147.285 128.011 1.00 93.80 C
ATOM 2723 CG1 VAL C 418 128.668 147.463 129.412 1.00 93.80 C
ATOM 2724 CG2 VAL C 418 127.908 148.632 127.348 1.00 93.80 C
ATOM 2725 N SER C 419 129.961 144.668 128.586 1.00 94.79 N
ATOM 2726 CA SER C 419 130.057 143.332 129.151 1.00 94.79 C
ATOM 2727 C SER C 419 130.426 143.458 130.619 1.00 94.79 C
ATOM 2728 O SER C 419 131.156 144.371 131.011 1.00 94.79 O
ATOM 2729 CB SER C 419 131.089 142.478 128.410 1.00 94.79 C
ATOM 2730 OG SER C 419 132.266 143.221 128.152 1.00 94.79 O
ATOM 2731 N VAL C 420 129.923 142.528 131.425 1.00 94.36 N
ATOM 2732 CA VAL C 420 130.001 142.610 132.878 1.00 94.36 C
ATOM 2733 C VAL C 420 130.874 141.471 133.386 1.00 94.36 C
ATOM 2734 O VAL C 420 130.543 140.295 133.197 1.00 94.36 O
ATOM 2735 CB VAL C 420 128.607 142.563 133.514 1.00 94.36 C

ATOM 2736 CG1 VAL C 420 127.822 143.800 133.143 1.00 94.36 C
ATOM 2737 CG2 VAL C 420 127.865 141.336 133.039 1.00 94.36 C
ATOM 2738 N PHE C 421 131.982 141.819 134.032 1.00 94.67 N
ATOM 2739 CA PHE C 421 132.887 140.852 134.634 1.00 94.67 C
ATOM 2740 C PHE C 421 132.726 140.863 136.148 1.00 94.67 C
ATOM 2741 O PHE C 421 132.284 141.853 136.733 1.00 94.67 O
ATOM 2742 CB PHE C 421 134.345 141.146 134.266 1.00 94.67 C
ATOM 2743 CG PHE C 421 134.677 140.857 132.833 1.00 94.67 C
ATOM 2744 CD1 PHE C 421 134.708 139.558 132.368 1.00 94.67 C
ATOM 2745 CD2 PHE C 421 134.961 141.882 131.952 1.00 94.67 C
ATOM 2746 CE1 PHE C 421 135.009 139.288 131.055 1.00 94.67 C
ATOM 2747 CE2 PHE C 421 135.262 141.614 130.640 1.00 94.67 C
ATOM 2748 CZ PHE C 421 135.287 140.316 130.191 1.00 94.67 C
ATOM 2749 N GLU C 422 133.093 139.751 136.779 1.00101.48 N
ATOM 2750 CA GLU C 422 132.958 139.577 138.222 1.00101.48 C
ATOM 2751 C GLU C 422 134.303 139.140 138.787 1.00101.48 C
ATOM 2752 O GLU C 422 134.770 138.033 138.503 1.00101.48 O
ATOM 2753 CB GLU C 422 131.868 138.560 138.545 1.00101.48 C
ATOM 2754 CG GLU C 422 131.480 138.513 140.008 1.00101.48 C
ATOM 2755 CD GLU C 422 129.993 138.301 140.202 1.00101.48 C
ATOM 2756 OE1 GLU C 422 129.481 138.619 141.296 1.00101.48 O
ATOM 2757 OE2 GLU C 422 129.333 137.818 139.257 1.00101.48 O
ATOM 2758 N THR C 423 134.918 140.002 139.589 1.00100.82 N
ATOM 2759 CA THR C 423 136.244 139.731 140.129 1.00100.82 C
ATOM 2760 C THR C 423 136.143 138.707 141.257 1.00100.82 C
ATOM 2761 O THR C 423 135.088 138.124 141.520 1.00100.82 O
ATOM 2762 CB THR C 423 136.900 141.019 140.611 1.00100.82 C
ATOM 2763 OG1 THR C 423 138.201 140.722 141.131 1.00100.82 O
ATOM 2764 CG2 THR C 423 136.072 141.644 141.708 1.00100.82 C
ATOM 2765 N THR C 424 137.265 138.479 141.941 1.00105.16 N
ATOM 2766 CA THR C 424 137.299 137.521 143.040 1.00105.16 C
ATOM 2767 C THR C 424 136.795 138.143 144.338 1.00105.16 C
ATOM 2768 O THR C 424 136.022 137.520 145.074 1.00105.16 O
ATOM 2769 CB THR C 424 138.720 136.984 143.223 1.00105.16 C

ATOM 2770 OG1 THR C 424 139.636 138.081 143.327 1.00105.16 O
ATOM 2771 CG2 THR C 424 139.117 136.113 142.043 1.00105.16 C
ATOM 2772 N GLY C 425 137.227 139.370 144.636 1.00102.01 N
ATOM 2773 CA GLY C 425 136.816 140.009 145.875 1.00102.01 C
ATOM 2774 C GLY C 425 135.310 140.085 146.031 1.00102.01 C
ATOM 2775 O GLY C 425 134.776 139.853 147.117 1.00102.01 O
ATOM 2776 N GLY C 426 134.605 140.409 144.951 1.00 99.43 N
ATOM 2777 CA GLY C 426 133.160 140.499 144.996 1.00 99.43 C
ATOM 2778 C GLY C 426 132.608 141.694 144.249 1.00 99.43 C
ATOM 2779 O GLY C 426 131.400 141.777 144.003 1.00 99.43 O
ATOM 2780 N LEU C 427 133.482 142.628 143.882 1.00 94.06 N
ATOM 2781 CA LEU C 427 133.051 143.815 143.157 1.00 94.06 C
ATOM 2782 C LEU C 427 132.732 143.471 141.706 1.00 94.06 C
ATOM 2783 O LEU C 427 133.392 142.632 141.088 1.00 94.06 O
ATOM 2784 CB LEU C 427 134.126 144.897 143.236 1.00 94.06 C
ATOM 2785 CG LEU C 427 135.527 144.541 142.741 1.00 94.06 C
ATOM 2786 CD1 LEU C 427 135.638 144.729 141.240 1.00 94.06 C
ATOM 2787 CD2 LEU C 427 136.578 145.364 143.468 1.00 94.06 C
ATOM 2788 N VAL C 428 131.710 144.132 141.164 1.00 89.89 N
ATOM 2789 CA VAL C 428 131.187 143.809 139.841 1.00 89.89 C
ATOM 2790 C VAL C 428 131.518 144.925 138.861 1.00 89.89 C
ATOM 2791 O VAL C 428 130.816 145.940 138.797 1.00 89.89 O
ATOM 2792 CB VAL C 428 129.669 143.562 139.899 1.00 89.89 C
ATOM 2793 CG1 VAL C 428 129.046 143.740 138.527 1.00 89.89 C
ATOM 2794 CG2 VAL C 428 129.385 142.175 140.434 1.00 89.89 C
ATOM 2795 N VAL C 429 132.587 144.745 138.089 1.00 87.79 N
ATOM 2796 CA VAL C 429 133.031 145.727 137.106 1.00 87.79 C
ATOM 2797 C VAL C 429 132.506 145.337 135.734 1.00 87.79 C
ATOM 2798 O VAL C 429 132.480 144.153 135.379 1.00 87.79 O
ATOM 2799 CB VAL C 429 134.566 145.838 137.086 1.00 87.79 C
ATOM 2800 CG1 VAL C 429 135.188 144.481 136.835 1.00 87.79 C
ATOM 2801 CG2 VAL C 429 135.004 146.816 136.019 1.00 87.79 C
ATOM 2802 N PHE C 430 132.088 146.335 134.957 1.00 89.74 N
ATOM 2803 CA PHE C 430 131.741 146.119 133.560 1.00 89.74 C

```
ATOM   2804  C   PHE C 430     132.093 147.364 132.764  1.00 89.74           C
ATOM   2805  O   PHE C 430     131.913 148.487 133.241  1.00 89.74           O
ATOM   2806  CB  PHE C 430     130.265 145.742 133.384  1.00 89.74           C
ATOM   2807  CG  PHE C 430     129.308 146.590 134.167  1.00 89.74           C
ATOM   2808  CD1 PHE C 430     129.005 146.281 135.480  1.00 89.74           C
ATOM   2809  CD2 PHE C 430     128.673 147.663 133.575  1.00 89.74           C
ATOM   2810  CE1 PHE C 430     128.112 147.044 136.193  1.00 89.74           C
ATOM   2811  CE2 PHE C 430     127.779 148.428 134.283  1.00 89.74           C
ATOM   2812  CZ  PHE C 430     127.498 148.118 135.595  1.00 89.74           C
ATOM   2813  N   TRP C 431     132.583 147.153 131.545  1.00 89.95           N
ATOM   2814  CA  TRP C 431     133.359 148.155 130.829  1.00 89.95           C
ATOM   2815  C   TRP C 431     132.946 148.154 129.361  1.00 89.95           C
ATOM   2816  O   TRP C 431     131.967 147.512 128.969  1.00 89.95           O
ATOM   2817  CB  TRP C 431     134.854 147.863 130.998  1.00 89.95           C
ATOM   2818  CG  TRP C 431     135.255 146.624 130.280  1.00 89.95           C
ATOM   2819  CD1 TRP C 431     134.729 145.380 130.449  1.00 89.95           C
ATOM   2820  CD2 TRP C 431     136.276 146.496 129.286  1.00 89.95           C
ATOM   2821  NE1 TRP C 431     135.347 144.488 129.614  1.00 89.95           N
ATOM   2822  CE2 TRP C 431     136.304 145.148 128.890  1.00 89.95           C
ATOM   2823  CE3 TRP C 431     137.167 147.392 128.690  1.00 89.95           C
ATOM   2824  CZ2 TRP C 431     137.185 144.673 127.928  1.00 89.95           C
ATOM   2825  CZ3 TRP C 431     138.039 146.919 127.736  1.00 89.95           C
ATOM   2826  CH2 TRP C 431     138.042 145.571 127.364  1.00 89.95           C
ATOM   2827  N   GLN C 432     133.709 148.883 128.545  1.00 87.48           N
ATOM   2828  CA  GLN C 432     133.452 149.022 127.119  1.00 87.48           C
ATOM   2829  C   GLN C 432     134.763 148.936 126.354  1.00 87.48           C
ATOM   2830  O   GLN C 432     135.809 149.373 126.837  1.00 87.48           O
ATOM   2831  CB  GLN C 432     132.756 150.349 126.804  1.00 87.48           C
ATOM   2832  CG  GLN C 432     132.538 150.594 125.330  1.00 87.48           C
ATOM   2833  CD  GLN C 432     131.866 149.425 124.645  1.00 87.48           C
ATOM   2834  OE1 GLN C 432     132.415 148.326 124.584  1.00 87.48           O
ATOM   2835  NE2 GLN C 432     130.668 149.656 124.124  1.00 87.48           N
ATOM   2836  N   GLY C 433     134.697 148.373 125.147  1.00 90.52           N
ATOM   2837  CA  GLY C 433     135.872 148.198 124.308  1.00 90.52           C
```

ATOM 2838 C GLY C 433 135.958 149.281 123.247 1.00 90.52 C
ATOM 2839 O GLY C 433 134.957 149.630 122.619 1.00 90.52 O
ATOM 2840 N ILE C 434 137.169 149.799 123.049 1.00 91.61 N
ATOM 2841 CA ILE C 434 137.388 150.944 122.176 1.00 91.61 C
ATOM 2842 C ILE C 434 138.703 150.777 121.425 1.00 91.61 C
ATOM 2843 O ILE C 434 139.631 150.117 121.899 1.00 91.61 O
ATOM 2844 CB ILE C 434 137.389 152.262 122.975 1.00 91.61 C
ATOM 2845 CG1 ILE C 434 137.285 153.455 122.033 1.00 91.61 C
ATOM 2846 CG2 ILE C 434 138.642 152.372 123.818 1.00 91.61 C
ATOM 2847 CD1 ILE C 434 137.071 154.756 122.745 1.00 91.61 C
ATOM 2848 N LYS C 435 138.774 151.383 120.240 1.00 93.35 N
ATOM 2849 CA LYS C 435 139.997 151.391 119.448 1.00 93.35 C
ATOM 2850 C LYS C 435 139.936 152.541 118.453 1.00 93.35 C
ATOM 2851 O LYS C 435 138.855 152.949 118.021 1.00 93.35 O
ATOM 2852 CB LYS C 435 140.215 150.058 118.723 1.00 93.35 C
ATOM 2853 CG LYS C 435 139.044 149.598 117.882 1.00 93.35 C
ATOM 2854 CD LYS C 435 139.098 150.179 116.485 1.00 93.35 C
ATOM 2855 CE LYS C 435 138.039 149.548 115.599 1.00 93.35 C
ATOM 2856 NZ LYS C 435 137.964 150.205 114.268 1.00 93.35 N
ATOM 2857 N GLN C 436 141.112 153.048 118.091 1.00 97.39 N
ATOM 2858 CA GLN C 436 141.221 154.241 117.264 1.00 97.39 C
ATOM 2859 C GLN C 436 140.758 153.951 115.836 1.00 97.39 C
ATOM 2860 O GLN C 436 140.331 152.846 115.498 1.00 97.39 O
ATOM 2861 CB GLN C 436 142.658 154.759 117.274 1.00 97.39 C
ATOM 2862 CG GLN C 436 142.813 156.191 116.794 1.00 97.39 C
ATOM 2863 CD GLN C 436 144.164 156.777 117.141 1.00 97.39 C
ATOM 2864 OE1 GLN C 436 145.098 156.052 117.475 1.00 97.39 O
ATOM 2865 NE2 GLN C 436 144.274 158.097 117.065 1.00 97.39 N
ATOM 2866 N LYS C 437 140.844 154.974 114.990 1.00103.13 N
ATOM 2867 CA LYS C 437 140.470 154.865 113.588 1.00103.13 C
ATOM 2868 C LYS C 437 141.606 154.202 112.810 1.00103.13 C
ATOM 2869 O LYS C 437 142.552 153.658 113.385 1.00103.13 O
ATOM 2870 CB LYS C 437 140.116 156.239 113.029 1.00103.13 C
ATOM 2871 CG LYS C 437 138.833 156.829 113.589 1.00103.13 C

ATOM 2872 CD LYS C 437 137.638 156.497 112.708 1.00103.13 C
ATOM 2873 CE LYS C 437 136.358 157.103 113.260 1.00103.13 C
ATOM 2874 NZ LYS C 437 136.445 158.583 113.391 1.00103.13 N
ATOM 2875 N SER C 438 141.525 154.244 111.482 1.00106.36 N
ATOM 2876 CA SER C 438 142.477 153.560 110.615 1.00106.36 C
ATOM 2877 C SER C 438 143.671 154.428 110.230 1.00106.36 C
ATOM 2878 O SER C 438 144.478 154.009 109.395 1.00106.36 O
ATOM 2879 CB SER C 438 141.772 153.063 109.351 1.00106.36 C
ATOM 2880 OG SER C 438 142.597 152.170 108.625 1.00106.36 O
ATOM 2881 N LEU C 439 143.801 155.619 110.812 1.00106.82 N
ATOM 2882 CA LEU C 439 144.890 156.561 110.569 1.00106.82 C
ATOM 2883 C LEU C 439 144.829 157.191 109.186 1.00106.82 C
ATOM 2884 O LEU C 439 145.635 158.081 108.891 1.00106.82 O
ATOM 2885 CB LEU C 439 146.272 155.919 110.758 1.00106.82 C
ATOM 2886 CG LEU C 439 147.479 156.841 110.579 1.00106.82 C
ATOM 2887 CD1 LEU C 439 147.442 157.967 111.590 1.00106.82 C
ATOM 2888 CD2 LEU C 439 148.768 156.056 110.708 1.00106.82 C
ATOM 2889 N VAL C 440 143.905 156.769 108.327 1.00110.50 N
ATOM 2890 CA VAL C 440 143.681 157.449 107.059 1.00110.50 C
ATOM 2891 C VAL C 440 142.543 158.456 107.155 1.00110.50 C
ATOM 2892 O VAL C 440 142.495 159.397 106.348 1.00110.50 O
ATOM 2893 CB VAL C 440 143.402 156.442 105.925 1.00110.50 C
ATOM 2894 CG1 VAL C 440 143.181 157.174 104.617 1.00110.50 C
ATOM 2895 CG2 VAL C 440 144.552 155.461 105.799 1.00110.50 C
ATOM 2896 N GLU C 441 141.630 158.290 108.111 1.00113.80 N
ATOM 2897 CA GLU C 441 140.566 159.255 108.340 1.00113.80 C
ATOM 2898 C GLU C 441 140.961 160.341 109.328 1.00113.80 C
ATOM 2899 O GLU C 441 140.373 161.426 109.301 1.00113.80 O
ATOM 2900 CB GLU C 441 139.309 158.545 108.844 1.00113.80 C
ATOM 2901 CG GLU C 441 138.397 158.054 107.736 1.00113.80 C
ATOM 2902 CD GLU C 441 138.960 156.846 107.015 1.00113.80 C
ATOM 2903 OE1 GLU C 441 139.168 155.803 107.670 1.00113.80 O
ATOM 2904 OE2 GLU C 441 139.195 156.939 105.792 1.00113.80 O
ATOM 2905 N LEU C 442 141.931 160.073 110.205 1.00112.51 N

ATOM 2906 CA LEU C 442 142.392 161.103 111.128 1.00112.51 C
ATOM 2907 C LEU C 442 142.869 162.339 110.380 1.00112.51 C
ATOM 2908 O LEU C 442 142.626 163.471 110.813 1.00112.51 O
ATOM 2909 CB LEU C 442 143.507 160.550 112.016 1.00112.51 C
ATOM 2910 CG LEU C 442 143.072 159.986 113.367 1.00112.51 C
ATOM 2911 CD1 LEU C 442 144.201 159.206 114.007 1.00112.51 C
ATOM 2912 CD2 LEU C 442 142.618 161.108 114.279 1.00112.51 C
ATOM 2913 N GLU C 443 143.549 162.143 109.249 1.00116.97 N
ATOM 2914 CA GLU C 443 144.046 163.280 108.481 1.00116.97 C
ATOM 2915 C GLU C 443 142.916 163.994 107.752 1.00116.97 C
ATOM 2916 O GLU C 443 142.917 165.226 107.649 1.00116.97 O
ATOM 2917 CB GLU C 443 145.115 162.818 107.492 1.00116.97 C
ATOM 2918 CG GLU C 443 146.057 163.920 107.034 1.00116.97 C
ATOM 2919 CD GLU C 443 145.536 164.668 105.822 1.00116.97 C
ATOM 2920 OE1 GLU C 443 146.098 165.732 105.489 1.00116.97 O
ATOM 2921 OE2 GLU C 443 144.564 164.192 105.201 1.00116.97 O
ATOM 2922 N ARG C 444 141.941 163.240 107.240 1.00118.60 N
ATOM 2923 CA ARG C 444 140.835 163.849 106.514 1.00118.60 C
ATOM 2924 C ARG C 444 139.816 164.494 107.443 1.00118.60 C
ATOM 2925 O ARG C 444 138.951 165.239 106.972 1.00118.60 O
ATOM 2926 CB ARG C 444 140.147 162.809 105.630 1.00118.60 C
ATOM 2927 CG ARG C 444 139.202 163.402 104.601 1.00118.60 C
ATOM 2928 CD ARG C 444 138.348 162.324 103.962 1.00118.60 C
ATOM 2929 NE ARG C 444 137.451 161.699 104.929 1.00118.60 N
ATOM 2930 CZ ARG C 444 136.726 160.615 104.680 1.00118.60 C
ATOM 2931 NH1 ARG C 444 135.935 160.113 105.619 1.00118.60 N
ATOM 2932 NH2 ARG C 444 136.790 160.031 103.492 1.00118.60 N
ATOM 2933 N LEU C 445 139.896 164.223 108.744 1.00119.46 N
ATOM 2934 CA LEU C 445 139.017 164.871 109.708 1.00119.46 C
ATOM 2935 C LEU C 445 139.590 166.182 110.220 1.00119.46 C
ATOM 2936 O LEU C 445 138.830 167.063 110.638 1.00119.46 O
ATOM 2937 CB LEU C 445 138.741 163.935 110.886 1.00119.46 C
ATOM 2938 CG LEU C 445 137.702 164.415 111.899 1.00119.46 C
ATOM 2939 CD1 LEU C 445 136.523 165.053 111.189 1.00119.46 C

ATOM 2940 CD2 LEU C 445 137.238 163.261 112.770 1.00119.46 C
ATOM 2941 N ALA C 446 140.911 166.330 110.203 1.00120.36 N
ATOM 2942 CA ALA C 446 141.589 167.580 110.534 1.00120.36 C
ATOM 2943 C ALA C 446 142.236 168.080 109.245 1.00120.36 C
ATOM 2944 O ALA C 446 143.332 167.657 108.877 1.00120.36 O
ATOM 2945 CB ALA C 446 142.614 167.382 111.645 1.00120.36 C
ATOM 2946 N ASN C 447 141.541 168.985 108.559 1.00123.06 N
ATOM 2947 CA ASN C 447 141.969 169.460 107.249 1.00123.06 C
ATOM 2948 C ASN C 447 143.390 170.008 107.295 1.00123.06 C
ATOM 2949 O ASN C 447 143.875 170.413 108.357 1.00123.06 O
ATOM 2950 CB ASN C 447 141.000 170.526 106.733 1.00123.06 C
ATOM 2951 CG ASN C 447 141.230 170.866 105.277 1.00123.06 C
ATOM 2952 OD1 ASN C 447 142.136 170.334 104.639 1.00123.06 O
ATOM 2953 ND2 ASN C 447 140.405 171.757 104.740 1.00123.06 N
ATOM 2954 N ARG C 448 144.065 170.018 106.149 1.00119.91 N
ATOM 2955 CA ARG C 448 145.425 170.535 106.051 1.00119.91 C
ATOM 2956 C ARG C 448 145.606 171.346 104.772 1.00119.91 C
ATOM 2957 O ARG C 448 145.141 172.481 104.671 1.00119.91 O
ATOM 2958 CB ARG C 448 146.443 169.393 106.098 1.00119.91 C
ATOM 2959 CG ARG C 448 146.524 168.685 107.439 1.00119.91 C
ATOM 2960 CD ARG C 448 147.515 167.530 107.401 1.00119.91 C
ATOM 2961 NE ARG C 448 148.893 167.985 107.250 1.00119.91 N
ATOM 2962 CZ ARG C 448 149.958 167.285 107.628 1.00119.91 C
ATOM 2963 NH1 ARG C 448 151.175 167.778 107.451 1.00119.91 N
ATOM 2964 NH2 ARG C 448 149.806 166.092 108.187 1.00119.91 N
ATOM 2965 N ASN C 478 149.045 151.483 96.604 1.00127.42 N
ATOM 2966 CA ASN C 478 148.731 152.249 97.804 1.00127.42 C
ATOM 2967 C ASN C 478 149.265 151.540 99.044 1.00127.42 C
ATOM 2968 O ASN C 478 148.727 151.692 100.140 1.00127.42 O
ATOM 2969 CB ASN C 478 147.219 152.460 97.924 1.00127.42 C
ATOM 2970 CG ASN C 478 146.650 153.267 96.774 1.00127.42 C
ATOM 2971 OD1 ASN C 478 146.642 152.815 95.628 1.00127.42 O
ATOM 2972 ND2 ASN C 478 146.166 154.467 97.074 1.00127.42 N
ATOM 2973 N LEU C 479 150.333 150.761 98.860 1.00125.68 N

```
ATOM   2974  CA  LEU C 479     150.849 149.940  99.950  1.00125.68           C
ATOM   2975  C   LEU C 479     151.539 150.775 101.023  1.00125.68           C
ATOM   2976  O   LEU C 479     151.554 150.376 102.192  1.00125.68           O
ATOM   2977  CB  LEU C 479     151.808 148.882  99.401  1.00125.68           C
ATOM   2978  CG  LEU C 479     152.206 147.743 100.345  1.00125.68           C
ATOM   2979  CD1 LEU C 479     152.582 146.500  99.554  1.00125.68           C
ATOM   2980  CD2 LEU C 479     153.347 148.162 101.261  1.00125.68           C
ATOM   2981  N   VAL C 480     152.112 151.922 100.651  1.00123.21           N
ATOM   2982  CA  VAL C 480     152.886 152.715 101.603  1.00123.21           C
ATOM   2983  C   VAL C 480     152.047 153.064 102.827  1.00123.21           C
ATOM   2984  O   VAL C 480     152.542 153.062 103.964  1.00123.21           O
ATOM   2985  CB  VAL C 480     153.442 153.976 100.915  1.00123.21           C
ATOM   2986  CG1 VAL C 480     152.320 154.952 100.594  1.00123.21           C
ATOM   2987  CG2 VAL C 480     154.496 154.636 101.788  1.00123.21           C
ATOM   2988  N   TYR C 481     150.769 153.385 102.616  1.00121.29           N
ATOM   2989  CA  TYR C 481     149.896 153.722 103.734  1.00121.29           C
ATOM   2990  C   TYR C 481     149.881 152.601 104.765  1.00121.29           C
ATOM   2991  O   TYR C 481     150.105 152.833 105.958  1.00121.29           O
ATOM   2992  CB  TYR C 481     148.483 154.009 103.227  1.00121.29           C
ATOM   2993  CG  TYR C 481     148.386 155.215 102.320  1.00121.29           C
ATOM   2994  CD1 TYR C 481     148.694 155.119 100.969  1.00121.29           C
ATOM   2995  CD2 TYR C 481     147.981 156.447 102.812  1.00121.29           C
ATOM   2996  CE1 TYR C 481     148.605 156.217 100.137  1.00121.29           C
ATOM   2997  CE2 TYR C 481     147.888 157.551 101.987  1.00121.29           C
ATOM   2998  CZ  TYR C 481     148.201 157.430 100.651  1.00121.29           C
ATOM   2999  OH  TYR C 481     148.110 158.526  99.824  1.00121.29           O
ATOM   3000  N   ALA C 482     149.627 151.371 104.315  1.00118.61           N
ATOM   3001  CA  ALA C 482     149.589 150.243 105.239  1.00118.61           C
ATOM   3002  C   ALA C 482     150.965 149.965 105.828  1.00118.61           C
ATOM   3003  O   ALA C 482     151.083 149.606 107.006  1.00118.61           O
ATOM   3004  CB  ALA C 482     149.047 149.003 104.528  1.00118.61           C
ATOM   3005  N   GLN C 483     152.017 150.113 105.023  1.00114.41           N
ATOM   3006  CA  GLN C 483     153.360 149.872 105.530  1.00114.41           C
ATOM   3007  C   GLN C 483     153.666 150.777 106.714  1.00114.41           C
```

ATOM 3008 O GLN C 483 154.291 150.346 107.689 1.00114.41 O
ATOM 3009 CB GLN C 483 154.390 150.069 104.420 1.00114.41 C
ATOM 3010 CG GLN C 483 155.824 149.843 104.868 1.00114.41 C
ATOM 3011 CD GLN C 483 156.088 148.406 105.276 1.00114.41 C
ATOM 3012 OE1 GLN C 483 156.588 148.141 106.368 1.00114.41 O
ATOM 3013 NE2 GLN C 483 155.753 147.470 104.396 1.00114.41 N
ATOM 3014 N LEU C 484 153.228 152.036 106.653 1.00109.34 N
ATOM 3015 CA LEU C 484 153.480 152.933 107.778 1.00109.34 C
ATOM 3016 C LEU C 484 152.488 152.716 108.915 1.00109.34 C
ATOM 3017 O LEU C 484 152.847 152.886 110.089 1.00109.34 O
ATOM 3018 CB LEU C 484 153.462 154.392 107.315 1.00109.34 C
ATOM 3019 CG LEU C 484 152.181 154.980 106.732 1.00109.34 C
ATOM 3020 CD1 LEU C 484 151.271 155.457 107.844 1.00109.34 C
ATOM 3021 CD2 LEU C 484 152.518 156.121 105.792 1.00109.34 C
ATOM 3022 N GLN C 485 151.243 152.356 108.591 1.00105.88 N
ATOM 3023 CA GLN C 485 150.296 151.938 109.619 1.00105.88 C
ATOM 3024 C GLN C 485 150.883 150.826 110.478 1.00105.88 C
ATOM 3025 O GLN C 485 150.657 150.773 111.695 1.00105.88 O
ATOM 3026 CB GLN C 485 148.995 151.477 108.958 1.00105.88 C
ATOM 3027 CG GLN C 485 147.959 150.905 109.907 1.00105.88 C
ATOM 3028 CD GLN C 485 147.204 151.976 110.659 1.00105.88 C
ATOM 3029 OE1 GLN C 485 147.409 152.172 111.855 1.00105.88 O
ATOM 3030 NE2 GLN C 485 146.321 152.676 109.961 1.00105.88 N
ATOM 3031 N PHE C 486 151.641 149.926 109.852 1.00104.94 N
ATOM 3032 CA PHE C 486 152.244 148.818 110.585 1.00104.94 C
ATOM 3033 C PHE C 486 153.180 149.326 111.675 1.00104.94 C
ATOM 3034 O PHE C 486 153.104 148.889 112.830 1.00104.94 O
ATOM 3035 CB PHE C 486 152.984 147.900 109.613 1.00104.94 C
ATOM 3036 CG PHE C 486 153.560 146.673 110.254 1.00104.94 C
ATOM 3037 CD1 PHE C 486 152.785 145.876 111.074 1.00104.94 C
ATOM 3038 CD2 PHE C 486 154.876 146.314 110.029 1.00104.94 C
ATOM 3039 CE1 PHE C 486 153.314 144.746 111.662 1.00104.94 C
ATOM 3040 CE2 PHE C 486 155.409 145.186 110.613 1.00104.94 C
ATOM 3041 CZ PHE C 486 154.628 144.402 111.430 1.00104.94 C

ATOM 3042 N THR C 487 154.073 150.255 111.327 1.00 98.40 N
ATOM 3043 CA THR C 487 154.993 150.797 112.321 1.00 98.40 C
ATOM 3044 C THR C 487 154.245 151.593 113.383 1.00 98.40 C
ATOM 3045 O THR C 487 154.595 151.543 114.570 1.00 98.40 O
ATOM 3046 CB THR C 487 156.044 151.671 111.643 1.00 98.40 C
ATOM 3047 OG1 THR C 487 155.405 152.793 111.027 1.00 98.40 O
ATOM 3048 CG2 THR C 487 156.782 150.878 110.579 1.00 98.40 C
ATOM 3049 N TYR C 488 153.224 152.343 112.973 1.00 95.81 N
ATOM 3050 CA TYR C 488 152.382 153.035 113.943 1.00 95.81 C
ATOM 3051 C TYR C 488 151.884 152.066 115.010 1.00 95.81 C
ATOM 3052 O TYR C 488 152.049 152.295 116.217 1.00 95.81 O
ATOM 3053 CB TYR C 488 151.209 153.700 113.220 1.00 95.81 C
ATOM 3054 CG TYR C 488 150.255 154.450 114.116 1.00 95.81 C
ATOM 3055 CD1 TYR C 488 149.244 153.788 114.792 1.00 95.81 C
ATOM 3056 CD2 TYR C 488 150.356 155.821 114.274 1.00 95.81 C
ATOM 3057 CE1 TYR C 488 148.369 154.469 115.609 1.00 95.81 C
ATOM 3058 CE2 TYR C 488 149.484 156.509 115.086 1.00 95.81 C
ATOM 3059 CZ TYR C 488 148.494 155.830 115.753 1.00 95.81 C
ATOM 3060 OH TYR C 488 147.623 156.515 116.565 1.00 95.81 O
ATOM 3061 N ASP C 489 151.273 150.965 114.569 1.00 92.33 N
ATOM 3062 CA ASP C 489 150.734 149.985 115.505 1.00 92.33 C
ATOM 3063 C ASP C 489 151.837 149.364 116.354 1.00 92.33 C
ATOM 3064 O ASP C 489 151.664 149.157 117.565 1.00 92.33 O
ATOM 3065 CB ASP C 489 149.974 148.907 114.735 1.00 92.33 C
ATOM 3066 CG ASP C 489 149.010 148.143 115.606 1.00 92.33 C
ATOM 3067 OD1 ASP C 489 148.974 148.410 116.824 1.00 92.33 O
ATOM 3068 OD2 ASP C 489 148.287 147.275 115.072 1.00 92.33 O
ATOM 3069 N THR C 490 152.979 149.054 115.735 1.00 89.11 N
ATOM 3070 CA THR C 490 154.057 148.391 116.460 1.00 89.11 C
ATOM 3071 C THR C 490 154.654 149.291 117.533 1.00 89.11 C
ATOM 3072 O THR C 490 155.199 148.792 118.523 1.00 89.11 O
ATOM 3073 CB THR C 490 155.142 147.938 115.488 1.00 89.11 C
ATOM 3074 OG1 THR C 490 154.669 146.816 114.734 1.00 89.11 O
ATOM 3075 CG2 THR C 490 156.391 147.537 116.243 1.00 89.11 C

ATOM 3076 N LEU C 491 154.569 150.611 117.360 1.00 88.29 N
ATOM 3077 CA LEU C 491 155.026 151.513 118.414 1.00 88.29 C
ATOM 3078 C LEU C 491 153.969 151.691 119.495 1.00 88.29 C
ATOM 3079 O LEU C 491 154.297 151.772 120.691 1.00 88.29 O
ATOM 3080 CB LEU C 491 155.406 152.869 117.828 1.00 88.29 C
ATOM 3081 CG LEU C 491 156.828 152.979 117.292 1.00 88.29 C
ATOM 3082 CD1 LEU C 491 157.820 152.778 118.417 1.00 88.29 C
ATOM 3083 CD2 LEU C 491 157.038 151.960 116.204 1.00 88.29 C
ATOM 3084 N ARG C 492 152.699 151.797 119.092 1.00 87.90 N
ATOM 3085 CA ARG C 492 151.638 151.885 120.086 1.00 87.90 C
ATOM 3086 C ARG C 492 151.697 150.699 121.040 1.00 87.90 C
ATOM 3087 O ARG C 492 151.533 150.857 122.257 1.00 87.90 O
ATOM 3088 CB ARG C 492 150.276 151.964 119.398 1.00 87.90 C
ATOM 3089 CG ARG C 492 149.224 152.708 120.200 1.00 87.90 C
ATOM 3090 CD ARG C 492 147.983 152.991 119.369 1.00 87.90 C
ATOM 3091 NE ARG C 492 147.394 151.771 118.826 1.00 87.90 N
ATOM 3092 CZ ARG C 492 146.461 151.749 117.879 1.00 87.90 C
ATOM 3093 NH1 ARG C 492 145.981 150.592 117.445 1.00 87.90 N
ATOM 3094 NH2 ARG C 492 146.007 152.883 117.365 1.00 87.90 N
ATOM 3095 N GLY C 493 151.945 149.503 120.504 1.00 87.69 N
ATOM 3096 CA GLY C 493 152.045 148.331 121.361 1.00 87.69 C
ATOM 3097 C GLY C 493 153.155 148.448 122.389 1.00 87.69 C
ATOM 3098 O GLY C 493 152.974 148.096 123.558 1.00 87.69 O
ATOM 3099 N TYR C 494 154.318 148.943 121.969 1.00 85.53 N
ATOM 3100 CA TYR C 494 155.449 149.091 122.880 1.00 85.53 C
ATOM 3101 C TYR C 494 155.123 150.070 124.004 1.00 85.53 C
ATOM 3102 O TYR C 494 155.380 149.797 125.190 1.00 85.53 O
ATOM 3103 CB TYR C 494 156.669 149.553 122.084 1.00 85.53 C
ATOM 3104 CG TYR C 494 157.955 149.656 122.859 1.00 85.53 C
ATOM 3105 CD1 TYR C 494 158.191 150.721 123.711 1.00 85.53 C
ATOM 3106 CD2 TYR C 494 158.950 148.705 122.713 1.00 85.53 C
ATOM 3107 CE1 TYR C 494 159.371 150.824 124.411 1.00 85.53 C
ATOM 3108 CE2 TYR C 494 160.133 148.801 123.408 1.00 85.53 C
ATOM 3109 CZ TYR C 494 160.339 149.862 124.256 1.00 85.53 C

ATOM 3110 OH TYR C 494 161.518 149.965 124.954 1.00 85.53 O
ATOM 3111 N ILE C 495 154.564 151.226 123.646 1.00 84.70 N
ATOM 3112 CA ILE C 495 154.222 152.208 124.672 1.00 84.70 C
ATOM 3113 C ILE C 495 153.204 151.626 125.645 1.00 84.70 C
ATOM 3114 O ILE C 495 153.299 151.828 126.864 1.00 84.70 O
ATOM 3115 CB ILE C 495 153.713 153.510 124.033 1.00 84.70 C
ATOM 3116 CG1 ILE C 495 154.764 154.085 123.089 1.00 84.70 C
ATOM 3117 CG2 ILE C 495 153.377 154.520 125.106 1.00 84.70 C
ATOM 3118 CD1 ILE C 495 154.392 155.432 122.529 1.00 84.70 C
ATOM 3119 N ASN C 496 152.214 150.897 125.124 1.00 85.94 N
ATOM 3120 CA ASN C 496 151.225 150.276 125.999 1.00 85.94 C
ATOM 3121 C ASN C 496 151.879 149.285 126.949 1.00 85.94 C
ATOM 3122 O ASN C 496 151.529 149.222 128.133 1.00 85.94 O
ATOM 3123 CB ASN C 496 150.148 149.590 125.166 1.00 85.94 C
ATOM 3124 CG ASN C 496 149.030 150.525 124.786 1.00 85.94 C
ATOM 3125 OD1 ASN C 496 149.081 151.720 125.074 1.00 85.94 O
ATOM 3126 ND2 ASN C 496 148.007 149.990 124.134 1.00 85.94 N
ATOM 3127 N ARG C 497 152.819 148.487 126.445 1.00 89.05 N
ATOM 3128 CA ARG C 497 153.524 147.543 127.304 1.00 89.05 C
ATOM 3129 C ARG C 497 154.194 148.262 128.468 1.00 89.05 C
ATOM 3130 O ARG C 497 154.062 147.855 129.629 1.00 89.05 O
ATOM 3131 CB ARG C 497 154.553 146.763 126.489 1.00 89.05 C
ATOM 3132 CG ARG C 497 155.232 145.649 127.259 1.00 89.05 C
ATOM 3133 CD ARG C 497 154.251 144.542 127.604 1.00 89.05 C
ATOM 3134 NE ARG C 497 154.151 144.332 129.045 1.00 89.05 N
ATOM 3135 CZ ARG C 497 153.416 143.382 129.613 1.00 89.05 C
ATOM 3136 NH1 ARG C 497 153.385 143.266 130.933 1.00 89.05 N
ATOM 3137 NH2 ARG C 497 152.711 142.548 128.861 1.00 89.05 N
ATOM 3138 N ALA C 498 154.922 149.339 128.174 1.00 87.15 N
ATOM 3139 CA ALA C 498 155.608 150.057 129.250 1.00 87.15 C
ATOM 3140 C ALA C 498 154.615 150.631 130.258 1.00 87.15 C
ATOM 3141 O ALA C 498 154.815 150.527 131.483 1.00 87.15 O
ATOM 3142 CB ALA C 498 156.484 151.164 128.670 1.00 87.15 C
ATOM 3143 N LEU C 499 153.543 151.255 129.763 1.00 85.86 N

ATOM 3144 CA LEU C 499 152.563 151.845 130.666 1.00 85.86 C
ATOM 3145 C LEU C 499 151.910 150.791 131.545 1.00 85.86 C
ATOM 3146 O LEU C 499 151.580 151.067 132.703 1.00 85.86 O
ATOM 3147 CB LEU C 499 151.502 152.607 129.875 1.00 85.86 C
ATOM 3148 CG LEU C 499 151.926 153.976 129.348 1.00 85.86 C
ATOM 3149 CD1 LEU C 499 150.717 154.768 128.887 1.00 85.86 C
ATOM 3150 CD2 LEU C 499 152.696 154.734 130.411 1.00 85.86 C
ATOM 3151 N ALA C 500 151.708 149.584 131.019 1.00 85.86 N
ATOM 3152 CA ALA C 500 151.122 148.525 131.830 1.00 85.86 C
ATOM 3153 C ALA C 500 152.124 147.946 132.815 1.00 85.86 C
ATOM 3154 O ALA C 500 151.725 147.419 133.857 1.00 85.86 O
ATOM 3155 CB ALA C 500 150.567 147.416 130.938 1.00 85.86 C
ATOM 3156 N GLN C 501 153.418 148.024 132.508 1.00 88.74 N
ATOM 3157 CA GLN C 501 154.417 147.505 133.435 1.00 88.74 C
ATOM 3158 C GLN C 501 154.721 148.462 134.580 1.00 88.74 C
ATOM 3159 O GLN C 501 155.259 148.026 135.602 1.00 88.74 O
ATOM 3160 CB GLN C 501 155.713 147.179 132.697 1.00 88.74 C
ATOM 3161 CG GLN C 501 156.656 146.285 133.481 1.00 88.74 C
ATOM 3162 CD GLN C 501 157.766 145.718 132.622 1.00 88.74 C
ATOM 3163 OE1 GLN C 501 158.201 146.344 131.656 1.00 88.74 O
ATOM 3164 NE2 GLN C 501 158.231 144.525 132.969 1.00 88.74 N
ATOM 3165 N ILE C 502 154.409 149.752 134.433 1.00 87.40 N
ATOM 3166 CA ILE C 502 154.658 150.674 135.549 1.00 87.40 C
ATOM 3167 C ILE C 502 153.668 150.457 136.702 1.00 87.40 C
ATOM 3168 O ILE C 502 154.006 150.672 137.881 1.00 87.40 O
ATOM 3169 CB ILE C 502 154.625 152.131 135.057 1.00 87.40 C
ATOM 3170 CG1 ILE C 502 155.788 152.398 134.103 1.00 87.40 C
ATOM 3171 CG2 ILE C 502 154.678 153.084 136.230 1.00 87.40 C
ATOM 3172 CD1 ILE C 502 157.125 151.964 134.642 1.00 87.40 C
ATOM 3173 N ALA C 503 152.440 150.036 136.391 1.00 88.25 N
ATOM 3174 CA ALA C 503 151.416 149.908 137.424 1.00 88.25 C
ATOM 3175 C ALA C 503 151.770 148.842 138.453 1.00 88.25 C
ATOM 3176 O ALA C 503 151.415 148.976 139.628 1.00 88.25 O
ATOM 3177 CB ALA C 503 150.065 149.598 136.785 1.00 88.25 C

ATOM 3178 N GLU C 504 152.449 147.771 138.037 1.00 95.24 N
ATOM 3179 CA GLU C 504 152.885 146.757 138.991 1.00 95.24 C
ATOM 3180 C GLU C 504 153.749 147.373 140.083 1.00 95.24 C
ATOM 3181 O GLU C 504 153.509 147.163 141.281 1.00 95.24 O
ATOM 3182 CB GLU C 504 153.661 145.658 138.270 1.00 95.24 C
ATOM 3183 CG GLU C 504 152.814 144.581 137.634 1.00 95.24 C
ATOM 3184 CD GLU C 504 153.662 143.478 137.032 1.00 95.24 C
ATOM 3185 OE1 GLU C 504 154.904 143.561 137.132 1.00 95.24 O
ATOM 3186 OE2 GLU C 504 153.094 142.529 136.459 1.00 95.24 O
ATOM 3187 N ALA C 505 154.789 148.103 139.682 1.00 88.53 N
ATOM 3188 CA ALA C 505 155.657 148.750 140.656 1.00 88.53 C
ATOM 3189 C ALA C 505 154.872 149.712 141.529 1.00 88.53 C
ATOM 3190 O ALA C 505 155.087 149.776 142.745 1.00 88.53 O
ATOM 3191 CB ALA C 505 156.797 149.480 139.949 1.00 88.53 C
ATOM 3192 N TRP C 506 153.937 150.452 140.947 1.00 91.43 N
ATOM 3193 CA TRP C 506 153.151 151.403 141.739 1.00 91.43 C
ATOM 3194 C TRP C 506 152.243 150.752 142.747 1.00 91.43 C
ATOM 3195 O TRP C 506 151.915 151.339 143.748 1.00 91.43 O
ATOM 3196 CB TRP C 506 152.358 152.370 140.887 1.00 91.43 C
ATOM 3197 CG TRP C 506 152.521 153.742 141.387 1.00 91.43 C
ATOM 3198 CD1 TRP C 506 152.319 154.169 142.654 1.00 91.43 C
ATOM 3199 CD2 TRP C 506 152.956 154.873 140.647 1.00 91.43 C
ATOM 3200 NE1 TRP C 506 152.590 155.504 142.753 1.00 91.43 N
ATOM 3201 CE2 TRP C 506 152.986 155.959 141.527 1.00 91.43 C
ATOM 3202 CE3 TRP C 506 153.317 155.075 139.320 1.00 91.43 C
ATOM 3203 CZ2 TRP C 506 153.355 157.222 141.126 1.00 91.43 C
ATOM 3204 CZ3 TRP C 506 153.689 156.325 138.926 1.00 91.43 C
ATOM 3205 CH2 TRP C 506 153.702 157.386 139.819 1.00 91.43 C
ATOM 3206 N CYS C 507 151.773 149.565 142.447 1.00 89.72 N
ATOM 3207 CA CYS C 507 150.982 148.807 143.414 1.00 89.72 C
ATOM 3208 C CYS C 507 151.863 148.262 144.532 1.00 89.72 C
ATOM 3209 O CYS C 507 151.534 148.386 145.720 1.00 89.72 O
ATOM 3210 CB CYS C 507 150.243 147.673 142.704 1.00 89.72 C
ATOM 3211 SG CYS C 507 149.133 146.700 143.747 1.00 89.72 S

ATOM 3212 N VAL C 508 152.985 147.638 144.168 1.00 85.32 N
ATOM 3213 CA VAL C 508 153.895 147.126 145.190 1.00 85.32 C
ATOM 3214 C VAL C 508 154.369 148.253 146.091 1.00 85.32 C
ATOM 3215 O VAL C 508 154.699 148.028 147.261 1.00 85.32 O
ATOM 3216 CB VAL C 508 155.083 146.391 144.544 1.00 85.32 C
ATOM 3217 CG1 VAL C 508 156.241 146.310 145.521 1.00 85.32 C
ATOM 3218 CG2 VAL C 508 154.661 145.006 144.097 1.00 85.32 C
ATOM 3219 N ASP C 509 154.418 149.479 145.570 1.00 88.12 N
ATOM 3220 CA ASP C 509 154.759 150.625 146.404 1.00 88.12 C
ATOM 3221 C ASP C 509 153.635 150.947 147.378 1.00 88.12 C
ATOM 3222 O ASP C 509 153.842 150.987 148.595 1.00 88.12 O
ATOM 3223 CB ASP C 509 155.073 151.838 145.532 1.00 88.12 C
ATOM 3224 CG ASP C 509 155.187 153.113 146.336 1.00 88.12 C
ATOM 3225 OD1 ASP C 509 156.300 153.421 146.810 1.00 88.12 O
ATOM 3226 OD2 ASP C 509 154.159 153.804 146.500 1.00 88.12 O
ATOM 3227 N GLN C 510 152.429 151.182 146.860 1.00 87.06 N
ATOM 3228 CA GLN C 510 151.304 151.473 147.744 1.00 87.06 C
ATOM 3229 C GLN C 510 151.049 150.370 148.760 1.00 87.06 C
ATOM 3230 O GLN C 510 150.269 150.582 149.693 1.00 87.06 O
ATOM 3231 CB GLN C 510 150.028 151.708 146.940 1.00 87.06 C
ATOM 3232 CG GLN C 510 149.892 153.104 146.374 1.00 87.06 C
ATOM 3233 CD GLN C 510 148.543 153.328 145.728 1.00 87.06 C
ATOM 3234 OE1 GLN C 510 147.702 152.428 145.697 1.00 87.06 O
ATOM 3235 NE2 GLN C 510 148.323 154.529 145.212 1.00 87.06 N
ATOM 3236 N ARG C 511 151.665 149.200 148.597 1.00 81.00 N
ATOM 3237 CA ARG C 511 151.436 148.123 149.556 1.00 81.00 C
ATOM 3238 C ARG C 511 152.109 148.389 150.901 1.00 81.00 C
ATOM 3239 O ARG C 511 151.645 147.898 151.935 1.00 81.00 O
ATOM 3240 CB ARG C 511 151.919 146.799 148.974 1.00 81.00 C
ATOM 3241 CG ARG C 511 151.892 145.642 149.947 1.00 81.00 C
ATOM 3242 CD ARG C 511 152.016 144.333 149.198 1.00 81.00 C
ATOM 3243 NE ARG C 511 152.594 143.273 150.016 1.00 81.00 N
ATOM 3244 CZ ARG C 511 152.945 142.081 149.545 1.00 81.00 C
ATOM 3245 NH1 ARG C 511 152.777 141.800 148.260 1.00 81.00 N

ATOM 3246 NH2 ARG C 511 153.463 141.170 150.357 1.00 81.00 N
ATOM 3247 N ARG C 512 153.210 149.150 150.918 1.00 72.66 N
ATOM 3248 CA ARG C 512 153.927 149.395 152.170 1.00 72.66 C
ATOM 3249 C ARG C 512 153.286 150.489 153.014 1.00 72.66 C
ATOM 3250 O ARG C 512 153.469 150.506 154.243 1.00 72.66 O
ATOM 3251 CB ARG C 512 155.379 149.770 151.886 1.00 72.66 C
ATOM 3252 CG ARG C 512 156.164 148.718 151.136 1.00 72.66 C
ATOM 3253 CD ARG C 512 157.580 149.194 150.870 1.00 72.66 C
ATOM 3254 NE ARG C 512 158.231 148.420 149.818 1.00 72.66 N
ATOM 3255 CZ ARG C 512 158.736 147.203 149.989 1.00 72.66 C
ATOM 3256 NH1 ARG C 512 158.670 146.616 151.175 1.00 72.66 N
ATOM 3257 NH2 ARG C 512 159.309 146.573 148.973 1.00 72.66 N
ATOM 3258 N THR C 513 152.562 151.412 152.382 1.00 65.37 N
ATOM 3259 CA THR C 513 151.916 152.478 153.131 1.00 65.37 C
ATOM 3260 C THR C 513 150.964 151.925 154.178 1.00 65.37 C
ATOM 3261 O THR C 513 150.724 152.576 155.197 1.00 65.37 O
ATOM 3262 CB THR C 513 151.176 153.415 152.180 1.00 65.37 C
ATOM 3263 OG1 THR C 513 152.127 154.202 151.455 1.00 65.37 O
ATOM 3264 CG2 THR C 513 150.252 154.334 152.950 1.00 65.37 C
ATOM 3265 N LEU C 514 150.441 150.715 153.975 1.00 64.70 N
ATOM 3266 CA LEU C 514 149.522 150.158 154.962 1.00 64.70 C
ATOM 3267 C LEU C 514 150.252 149.759 156.238 1.00 64.70 C
ATOM 3268 O LEU C 514 149.790 150.068 157.342 1.00 64.70 O
ATOM 3269 CB LEU C 514 148.768 148.970 154.373 1.00 64.70 C
ATOM 3270 CG LEU C 514 147.680 149.352 153.369 1.00 64.70 C
ATOM 3271 CD1 LEU C 514 146.781 148.164 153.076 1.00 64.70 C
ATOM 3272 CD2 LEU C 514 146.871 150.535 153.873 1.00 64.70 C
ATOM 3273 N GLU C 515 151.391 149.075 156.118 1.00 56.89 N
ATOM 3274 CA GLU C 515 152.179 148.773 157.310 1.00 56.89 C
ATOM 3275 C GLU C 515 152.644 150.052 157.992 1.00 56.89 C
ATOM 3276 O GLU C 515 152.624 150.156 159.229 1.00 56.89 O
ATOM 3277 CB GLU C 515 153.372 147.894 156.944 1.00 56.89 C
ATOM 3278 CG GLU C 515 154.433 147.798 158.032 1.00 56.89 C
ATOM 3279 CD GLU C 515 153.984 146.982 159.232 1.00 56.89 C

ATOM 3280 OE1 GLU C 515 154.210 147.427 160.376 1.00 56.89 O
ATOM 3281 OE2 GLU C 515 153.409 145.892 159.033 1.00 56.89 O
ATOM 3282 N VAL C 516 153.068 151.039 157.201 1.00 54.06 N
ATOM 3283 CA VAL C 516 153.502 152.304 157.788 1.00 54.06 C
ATOM 3284 C VAL C 516 152.369 152.936 158.589 1.00 54.06 C
ATOM 3285 O VAL C 516 152.557 153.356 159.737 1.00 54.06 O
ATOM 3286 CB VAL C 516 154.027 153.256 156.701 1.00 54.06 C
ATOM 3287 CG1 VAL C 516 154.073 154.669 157.227 1.00 54.06 C
ATOM 3288 CG2 VAL C 516 155.404 152.825 156.250 1.00 54.06 C
ATOM 3289 N PHE C 517 151.174 153.011 157.998 1.00 52.95 N
ATOM 3290 CA PHE C 517 150.051 153.632 158.688 1.00 52.95 C
ATOM 3291 C PHE C 517 149.598 152.827 159.892 1.00 52.95 C
ATOM 3292 O PHE C 517 149.113 153.407 160.859 1.00 52.95 O
ATOM 3293 CB PHE C 517 148.875 153.852 157.741 1.00 52.95 C
ATOM 3294 CG PHE C 517 149.024 155.057 156.865 1.00 52.95 C
ATOM 3295 CD1 PHE C 517 150.008 155.992 157.117 1.00 52.95 C
ATOM 3296 CD2 PHE C 517 148.158 155.273 155.812 1.00 52.95 C
ATOM 3297 CE1 PHE C 517 150.141 157.107 156.320 1.00 52.95 C
ATOM 3298 CE2 PHE C 517 148.287 156.387 155.014 1.00 52.95 C
ATOM 3299 CZ PHE C 517 149.281 157.306 155.269 1.00 52.95 C
ATOM 3300 N LYS C 518 149.747 151.505 159.873 1.00 52.81 N
ATOM 3301 CA LYS C 518 149.436 150.735 161.072 1.00 52.81 C
ATOM 3302 C LYS C 518 150.372 151.121 162.213 1.00 52.81 C
ATOM 3303 O LYS C 518 149.933 151.556 163.294 1.00 52.81 O
ATOM 3304 CB LYS C 518 149.532 149.241 160.773 1.00 52.81 C
ATOM 3305 CG LYS C 518 149.178 148.362 161.950 1.00 52.81 C
ATOM 3306 CD LYS C 518 149.346 146.901 161.605 1.00 52.81 C
ATOM 3307 CE LYS C 518 148.813 146.608 160.220 1.00 52.81 C
ATOM 3308 NZ LYS C 518 148.887 145.158 159.897 1.00 52.81 N
ATOM 3309 N GLU C 519 151.678 150.980 161.981 1.00 52.29 N
ATOM 3310 CA GLU C 519 152.639 151.338 163.018 1.00 52.29 C
ATOM 3311 C GLU C 519 152.414 152.760 163.516 1.00 52.29 C
ATOM 3312 O GLU C 519 152.541 153.031 164.713 1.00 52.29 O
ATOM 3313 CB GLU C 519 154.063 151.163 162.501 1.00 52.29 C

ATOM 3314 CG GLU C 519 154.425 149.724 162.214 1.00 52.29 C
ATOM 3315 CD GLU C 519 154.101 148.808 163.371 1.00 52.29 C
ATOM 3316 OE1 GLU C 519 153.920 149.314 164.497 1.00 52.29 O
ATOM 3317 OE2 GLU C 519 154.021 147.582 163.155 1.00 52.29 O
ATOM 3318 N LEU C 520 152.075 153.683 162.613 1.00 47.03 N
ATOM 3319 CA LEU C 520 151.814 155.053 163.043 1.00 47.03 C
ATOM 3320 C LEU C 520 150.515 155.164 163.831 1.00 47.03 C
ATOM 3321 O LEU C 520 150.431 155.962 164.769 1.00 47.03 O
ATOM 3322 CB LEU C 520 151.773 155.991 161.839 1.00 47.03 C
ATOM 3323 CG LEU C 520 153.102 156.327 161.170 1.00 47.03 C
ATOM 3324 CD1 LEU C 520 152.917 157.478 160.209 1.00 47.03 C
ATOM 3325 CD2 LEU C 520 154.144 156.663 162.209 1.00 47.03 C
ATOM 3326 N SER C 521 149.493 154.388 163.468 1.00 47.73 N
ATOM 3327 CA SER C 521 148.250 154.391 164.220 1.00 47.73 C
ATOM 3328 C SER C 521 148.455 153.882 165.627 1.00 47.73 C
ATOM 3329 O SER C 521 147.602 154.110 166.488 1.00 47.73 O
ATOM 3330 CB SER C 521 147.195 153.541 163.522 1.00 47.73 C
ATOM 3331 OG SER C 521 147.377 152.173 163.832 1.00 47.73 O
ATOM 3332 N LYS C 522 149.549 153.190 165.877 1.00 49.54 N
ATOM 3333 CA LYS C 522 149.768 152.984 167.311 1.00 49.54 C
ATOM 3334 C LYS C 522 150.237 154.260 168.044 1.00 49.54 C
ATOM 3335 O LYS C 522 150.673 154.136 169.186 1.00 49.54 O
ATOM 3336 CB LYS C 522 150.772 151.858 167.553 1.00 49.54 C
ATOM 3337 CG LYS C 522 150.197 150.473 167.346 1.00 49.54 C
ATOM 3338 CD LYS C 522 151.284 149.419 167.366 1.00 49.54 C
ATOM 3339 CE LYS C 522 150.786 148.111 166.782 1.00 49.54 C
ATOM 3340 NZ LYS C 522 151.900 147.155 166.542 1.00 49.54 N
ATOM 3341 N ILE C 523 150.187 155.462 167.464 1.00 48.18 N
ATOM 3342 CA ILE C 523 150.590 156.685 168.146 1.00 48.18 C
ATOM 3343 C ILE C 523 149.416 157.632 168.359 1.00 48.18 C
ATOM 3344 O ILE C 523 149.292 158.241 169.425 1.00 48.18 O
ATOM 3345 CB ILE C 523 151.719 157.406 167.383 1.00 48.18 C
ATOM 3346 CG1 ILE C 523 153.034 156.645 167.513 1.00 48.18 C
ATOM 3347 CG2 ILE C 523 151.881 158.817 167.897 1.00 48.18 C

ATOM 3348 CD1 ILE C 523 154.173 157.298 166.777 1.00 48.18 C
ATOM 3349 N ASN C 524 148.555 157.787 167.357 1.00 48.28 N
ATOM 3350 CA ASN C 524 147.418 158.694 167.440 1.00 48.28 C
ATOM 3351 C ASN C 524 146.365 158.298 166.413 1.00 48.28 C
ATOM 3352 O ASN C 524 146.386 158.798 165.283 1.00 48.28 O
ATOM 3353 CB ASN C 524 147.868 160.137 167.218 1.00 48.28 C
ATOM 3354 CG ASN C 524 146.899 161.143 167.793 1.00 48.28 C
ATOM 3355 OD1 ASN C 524 146.053 160.804 168.618 1.00 48.28 O
ATOM 3356 ND2 ASN C 524 147.017 162.391 167.362 1.00 48.28 N
ATOM 3357 N PRO C 525 145.433 157.407 166.758 1.00 43.70 N
ATOM 3358 CA PRO C 525 144.491 156.912 165.740 1.00 43.70 C
ATOM 3359 C PRO C 525 143.611 157.994 165.138 1.00 43.70 C
ATOM 3360 O PRO C 525 143.308 157.946 163.938 1.00 43.70 O
ATOM 3361 CB PRO C 525 143.663 155.875 166.511 1.00 43.70 C
ATOM 3362 CG PRO C 525 144.472 155.545 167.721 1.00 43.70 C
ATOM 3363 CD PRO C 525 145.202 156.790 168.072 1.00 43.70 C
ATOM 3364 N SER C 526 143.176 158.964 165.942 1.00 44.51 N
ATOM 3365 CA SER C 526 142.296 160.008 165.430 1.00 44.51 C
ATOM 3366 C SER C 526 142.921 160.717 164.238 1.00 44.51 C
ATOM 3367 O SER C 526 142.260 160.944 163.220 1.00 44.51 O
ATOM 3368 CB SER C 526 141.968 161.010 166.535 1.00 44.51 C
ATOM 3369 OG SER C 526 141.584 160.349 167.726 1.00 44.51 O
ATOM 3370 N ALA C 527 144.202 161.068 164.342 1.00 46.43 N
ATOM 3371 CA ALA C 527 144.853 161.810 163.269 1.00 46.43 C
ATOM 3372 C ALA C 527 144.949 160.975 161.998 1.00 46.43 C
ATOM 3373 O ALA C 527 144.631 161.455 160.905 1.00 46.43 O
ATOM 3374 CB ALA C 527 146.238 162.270 163.717 1.00 46.43 C
ATOM 3375 N ILE C 528 145.381 159.720 162.120 1.00 45.98 N
ATOM 3376 CA ILE C 528 145.531 158.870 160.942 1.00 45.98 C
ATOM 3377 C ILE C 528 144.192 158.671 160.246 1.00 45.98 C
ATOM 3378 O ILE C 528 144.098 158.735 159.011 1.00 45.98 O
ATOM 3379 CB ILE C 528 146.168 157.527 161.334 1.00 45.98 C
ATOM 3380 CG1 ILE C 528 147.597 157.742 161.818 1.00 45.98 C
ATOM 3381 CG2 ILE C 528 146.144 156.574 160.164 1.00 45.98 C

ATOM 3382 CD1 ILE C 528 148.452 158.502 160.845 1.00 45.98 C
ATOM 3383 N LEU C 529 143.135 158.417 161.017 1.00 46.68 N
ATOM 3384 CA LEU C 529 141.839 158.192 160.389 1.00 46.68 C
ATOM 3385 C LEU C 529 141.297 159.472 159.763 1.00 46.68 C
ATOM 3386 O LEU C 529 140.764 159.443 158.649 1.00 46.68 O
ATOM 3387 CB LEU C 529 140.855 157.615 161.401 1.00 46.68 C
ATOM 3388 CG LEU C 529 141.103 156.142 161.715 1.00 46.68 C
ATOM 3389 CD1 LEU C 529 139.920 155.537 162.441 1.00 46.68 C
ATOM 3390 CD2 LEU C 529 141.391 155.381 160.442 1.00 46.68 C
ATOM 3391 N SER C 530 141.426 160.607 160.452 1.00 48.59 N
ATOM 3392 CA SER C 530 141.016 161.866 159.843 1.00 48.59 C
ATOM 3393 C SER C 530 141.813 162.153 158.581 1.00 48.59 C
ATOM 3394 O SER C 530 141.325 162.849 157.685 1.00 48.59 O
ATOM 3395 CB SER C 530 141.178 163.012 160.839 1.00 48.59 C
ATOM 3396 OG SER C 530 140.575 162.696 162.078 1.00 48.59 O
ATOM 3397 N ALA C 531 143.036 161.634 158.493 1.00 49.89 N
ATOM 3398 CA ALA C 531 143.853 161.870 157.310 1.00 49.89 C
ATOM 3399 C ALA C 531 143.420 160.995 156.142 1.00 49.89 C
ATOM 3400 O ALA C 531 143.393 161.459 154.998 1.00 49.89 O
ATOM 3401 CB ALA C 531 145.327 161.632 157.630 1.00 49.89 C
ATOM 3402 N ILE C 532 143.085 159.733 156.399 1.00 49.61 N
ATOM 3403 CA ILE C 532 142.739 158.846 155.291 1.00 49.61 C
ATOM 3404 C ILE C 532 141.235 158.854 155.046 1.00 49.61 C
ATOM 3405 O ILE C 532 140.731 158.082 154.225 1.00 49.61 O
ATOM 3406 CB ILE C 532 143.240 157.409 155.522 1.00 49.61 C
ATOM 3407 CG1 ILE C 532 142.498 156.748 156.676 1.00 49.61 C
ATOM 3408 CG2 ILE C 532 144.727 157.406 155.801 1.00 49.61 C
ATOM 3409 CD1 ILE C 532 142.780 155.273 156.789 1.00 49.61 C
ATOM 3410 N TYR C 533 140.506 159.720 155.751 1.00 56.43 N
ATOM 3411 CA TYR C 533 139.080 159.895 155.499 1.00 56.43 C
ATOM 3412 C TYR C 533 138.664 161.332 155.227 1.00 56.43 C
ATOM 3413 O TYR C 533 137.500 161.553 154.881 1.00 56.43 O
ATOM 3414 CB TYR C 533 138.249 159.367 156.678 1.00 56.43 C
ATOM 3415 CG TYR C 533 138.023 157.876 156.659 1.00 56.43 C

ATOM 3416 CD1 TYR C 533 138.318 157.126 155.534 1.00 56.43 C
ATOM 3417 CD2 TYR C 533 137.513 157.219 157.766 1.00 56.43 C
ATOM 3418 CE1 TYR C 533 138.114 155.762 155.513 1.00 56.43 C
ATOM 3419 CE2 TYR C 533 137.305 155.856 157.754 1.00 56.43 C
ATOM 3420 CZ TYR C 533 137.607 155.133 156.626 1.00 56.43 C
ATOM 3421 OH TYR C 533 137.401 153.775 156.608 1.00 56.43 O
ATOM 3422 N ASN C 534 139.557 162.306 155.378 1.00 59.26 N
ATOM 3423 CA ASN C 534 139.255 163.712 155.115 1.00 59.26 C
ATOM 3424 C ASN C 534 137.986 164.147 155.852 1.00 59.26 C
ATOM 3425 O ASN C 534 136.973 164.513 155.258 1.00 59.26 O
ATOM 3426 CB ASN C 534 139.133 163.964 153.610 1.00 59.26 C
ATOM 3427 CG ASN C 534 140.477 164.152 152.943 1.00 59.26 C
ATOM 3428 OD1 ASN C 534 140.796 163.480 151.963 1.00 59.26 O
ATOM 3429 ND2 ASN C 534 141.276 165.069 153.471 1.00 59.26 N
ATOM 3430 N LYS C 535 138.070 164.093 157.173 1.00 59.00 N
ATOM 3431 CA LYS C 535 136.938 164.413 158.029 1.00 59.00 C
ATOM 3432 C LYS C 535 137.419 164.420 159.476 1.00 59.00 C
ATOM 3433 O LYS C 535 138.472 163.856 159.779 1.00 59.00 O
ATOM 3434 CB LYS C 535 135.801 163.397 157.846 1.00 59.00 C
ATOM 3435 CG LYS C 535 134.412 163.938 158.102 1.00 59.00 C
ATOM 3436 CD LYS C 535 133.385 162.826 157.994 1.00 59.00 C
ATOM 3437 CE LYS C 535 133.670 161.939 156.795 1.00 59.00 C
ATOM 3438 NZ LYS C 535 132.626 160.896 156.616 1.00 59.00 N
ATOM 3439 N PRO C 536 136.673 165.059 160.376 1.00 56.09 N
ATOM 3440 CA PRO C 536 137.001 164.967 161.803 1.00 56.09 C
ATOM 3441 C PRO C 536 136.416 163.717 162.437 1.00 56.09 C
ATOM 3442 O PRO C 536 135.210 163.474 162.342 1.00 56.09 O
ATOM 3443 CB PRO C 536 136.372 166.237 162.382 1.00 56.09 C
ATOM 3444 CG PRO C 536 135.192 166.466 161.515 1.00 56.09 C
ATOM 3445 CD PRO C 536 135.588 166.023 160.127 1.00 56.09 C
ATOM 3446 N ILE C 537 137.260 162.919 163.092 1.00 49.90 N
ATOM 3447 CA ILE C 537 136.859 161.630 163.635 1.00 49.90 C
ATOM 3448 C ILE C 537 137.518 161.437 164.993 1.00 49.90 C
ATOM 3449 O ILE C 537 138.539 162.049 165.306 1.00 49.90 O

ATOM 3450 CB ILE C 537 137.225 160.477 162.675 1.00 49.90 C
ATOM 3451 CG1 ILE C 537 136.302 160.492 161.463 1.00 49.90 C
ATOM 3452 CG2 ILE C 537 137.136 159.142 163.364 1.00 49.90 C
ATOM 3453 CD1 ILE C 537 136.516 159.333 160.534 1.00 49.90 C
ATOM 3454 N ALA C 538 136.911 160.573 165.806 1.00 46.53 N
ATOM 3455 CA ALA C 538 137.415 160.256 167.139 1.00 46.53 C
ATOM 3456 C ALA C 538 137.417 158.744 167.294 1.00 46.53 C
ATOM 3457 O ALA C 538 136.351 158.131 167.384 1.00 46.53 O
ATOM 3458 CB ALA C 538 136.565 160.910 168.224 1.00 46.53 C
ATOM 3459 N ALA C 539 138.603 158.147 167.333 1.00 41.43 N
ATOM 3460 CA ALA C 539 138.761 156.704 167.414 1.00 41.43 C
ATOM 3461 C ALA C 539 139.401 156.311 168.739 1.00 41.43 C
ATOM 3462 O ALA C 539 139.833 157.154 169.525 1.00 41.43 O
ATOM 3463 CB ALA C 539 139.598 156.187 166.241 1.00 41.43 C
ATOM 3464 N ARG C 540 139.460 155.004 168.979 1.00 42.05 N
ATOM 3465 CA ARG C 540 140.032 154.467 170.206 1.00 42.05 C
ATOM 3466 C ARG C 540 140.147 152.958 170.070 1.00 42.05 C
ATOM 3467 O ARG C 540 139.324 152.323 169.408 1.00 42.05 O
ATOM 3468 CB ARG C 540 139.178 154.828 171.425 1.00 42.05 C
ATOM 3469 CG ARG C 540 139.588 154.121 172.698 1.00 42.05 C
ATOM 3470 CD ARG C 540 138.818 154.642 173.894 1.00 42.05 C
ATOM 3471 NE ARG C 540 137.513 154.005 174.029 1.00 42.05 N
ATOM 3472 CZ ARG C 540 137.325 152.782 174.510 1.00 42.05 C
ATOM 3473 NH1 ARG C 540 136.103 152.282 174.600 1.00 42.05 N
ATOM 3474 NH2 ARG C 540 138.361 152.056 174.896 1.00 42.05 N
ATOM 3475 N PHE C 541 141.170 152.393 170.705 1.00 41.43 N
ATOM 3476 CA PHE C 541 141.412 150.959 170.629 1.00 41.43 C
ATOM 3477 C PHE C 541 140.497 150.195 171.576 1.00 41.43 C
ATOM 3478 O PHE C 541 140.241 150.629 172.701 1.00 41.43 O
ATOM 3479 CB PHE C 541 142.867 150.640 170.957 1.00 41.43 C
ATOM 3480 CG PHE C 541 143.789 150.733 169.782 1.00 41.43 C
ATOM 3481 CD1 PHE C 541 143.912 149.677 168.904 1.00 41.43 C
ATOM 3482 CD2 PHE C 541 144.541 151.868 169.562 1.00 41.43 C
ATOM 3483 CE1 PHE C 541 144.758 149.754 167.827 1.00 41.43 C

ATOM 3484 CE2 PHE C 541 145.389 151.950 168.487 1.00 41.43 C
ATOM 3485 CZ PHE C 541 145.497 150.891 167.618 1.00 41.43 C
ATOM 3486 N MET C 542 140.016 149.046 171.112 1.00 39.59 N
ATOM 3487 CA MET C 542 139.152 148.180 171.903 1.00 39.59 C
ATOM 3488 C MET C 542 139.786 146.805 172.052 1.00 39.59 C
ATOM 3489 O MET C 542 139.134 145.783 171.824 1.00 39.59 O
ATOM 3490 CB MET C 542 137.767 148.078 171.271 1.00 39.59 C
ATOM 3491 CG MET C 542 136.897 149.285 171.541 1.00 39.59 C
ATOM 3492 SD MET C 542 135.389 149.295 170.567 1.00 39.59 S
ATOM 3493 CE MET C 542 134.426 150.495 171.474 1.00 39.59 C
ATOM 3494 N GLY C 543 141.057 146.774 172.433 1.00 42.83 N
ATOM 3495 CA GLY C 543 141.827 145.550 172.458 1.00 42.83 C
ATOM 3496 C GLY C 543 142.626 145.343 171.190 1.00 42.83 C
ATOM 3497 O GLY C 543 143.853 145.447 171.208 1.00 42.83 O
ATOM 3498 N ASP C 544 141.949 145.062 170.078 1.00 43.84 N
ATOM 3499 CA ASP C 544 142.642 144.887 168.808 1.00 43.84 C
ATOM 3500 C ASP C 544 141.887 145.497 167.634 1.00 43.84 C
ATOM 3501 O ASP C 544 142.265 145.247 166.484 1.00 43.84 O
ATOM 3502 CB ASP C 544 142.889 143.403 168.531 1.00 43.84 C
ATOM 3503 CG ASP C 544 144.223 142.928 169.050 1.00 43.84 C
ATOM 3504 OD1 ASP C 544 144.994 143.766 169.555 1.00 43.84 O
ATOM 3505 OD2 ASP C 544 144.503 141.717 168.953 1.00 43.84 O
ATOM 3506 N VAL C 545 140.843 146.282 167.878 1.00 38.87 N
ATOM 3507 CA VAL C 545 139.937 146.726 166.828 1.00 38.87 C
ATOM 3508 C VAL C 545 139.490 148.145 167.149 1.00 38.87 C
ATOM 3509 O VAL C 545 138.817 148.370 168.158 1.00 38.87 O
ATOM 3510 CB VAL C 545 138.723 145.800 166.694 1.00 38.87 C
ATOM 3511 CG1 VAL C 545 137.586 146.527 166.034 1.00 38.87 C
ATOM 3512 CG2 VAL C 545 139.093 144.570 165.901 1.00 38.87 C
ATOM 3513 N LEU C 546 139.853 149.097 166.295 1.00 39.13 N
ATOM 3514 CA LEU C 546 139.461 150.483 166.505 1.00 39.13 C
ATOM 3515 C LEU C 546 137.942 150.614 166.574 1.00 39.13 C
ATOM 3516 O LEU C 546 137.195 149.735 166.144 1.00 39.13 O
ATOM 3517 CB LEU C 546 140.010 151.367 165.390 1.00 39.13 C

ATOM 3518 CG LEU C 546 141.526 151.535 165.357 1.00 39.13 C
ATOM 3519 CD1 LEU C 546 142.017 151.654 163.936 1.00 39.13 C
ATOM 3520 CD2 LEU C 546 141.932 152.750 166.152 1.00 39.13 C
ATOM 3521 N GLY C 547 137.491 151.732 167.135 1.00 39.34 N
ATOM 3522 CA GLY C 547 136.075 152.038 167.207 1.00 39.34 C
ATOM 3523 C GLY C 547 135.778 153.462 166.787 1.00 39.34 C
ATOM 3524 O GLY C 547 136.284 154.404 167.397 1.00 39.34 O
ATOM 3525 N LEU C 548 134.961 153.636 165.754 1.00 42.21 N
ATOM 3526 CA LEU C 548 134.735 154.951 165.174 1.00 42.21 C
ATOM 3527 C LEU C 548 133.628 155.699 165.912 1.00 42.21 C
ATOM 3528 O LEU C 548 132.769 155.107 166.568 1.00 42.21 O
ATOM 3529 CB LEU C 548 134.375 154.826 163.694 1.00 42.21 C
ATOM 3530 CG LEU C 548 135.519 154.834 162.682 1.00 42.21 C
ATOM 3531 CD1 LEU C 548 136.143 156.204 162.604 1.00 42.21 C
ATOM 3532 CD2 LEU C 548 136.554 153.814 163.064 1.00 42.21 C
ATOM 3533 N ALA C 549 133.655 157.016 165.789 1.00 47.11 N
ATOM 3534 CA ALA C 549 132.650 157.895 166.380 1.00 47.11 C
ATOM 3535 C ALA C 549 132.856 159.281 165.784 1.00 47.11 C
ATOM 3536 O ALA C 549 133.664 159.460 164.865 1.00 47.11 O
ATOM 3537 CB ALA C 549 132.739 157.901 167.904 1.00 47.11 C
ATOM 3538 N SER C 550 132.133 160.265 166.304 1.00 51.12 N
ATOM 3539 CA SER C 550 132.214 161.634 165.821 1.00 51.12 C
ATOM 3540 C SER C 550 132.521 162.582 166.975 1.00 51.12 C
ATOM 3541 O SER C 550 132.319 162.264 168.149 1.00 51.12 O
ATOM 3542 CB SER C 550 130.912 162.040 165.122 1.00 51.12 C
ATOM 3543 OG SER C 550 131.112 163.164 164.289 1.00 51.12 O
ATOM 3544 N CYS C 551 133.024 163.764 166.630 1.00 50.83 N
ATOM 3545 CA CYS C 551 133.365 164.773 167.621 1.00 50.83 C
ATOM 3546 C CYS C 551 132.108 165.499 168.086 1.00 50.83 C
ATOM 3547 O CYS C 551 131.220 165.800 167.285 1.00 50.83 O
ATOM 3548 CB CYS C 551 134.369 165.777 167.047 1.00 50.83 C
ATOM 3549 SG CYS C 551 136.001 165.098 166.593 1.00 50.83 S
ATOM 3550 N VAL C 552 132.034 165.773 169.387 1.00 46.75 N
ATOM 3551 CA VAL C 552 130.899 166.504 169.936 1.00 46.75 C

ATOM 3552 C VAL C 552 131.152 168.006 169.828 1.00 46.75 C
ATOM 3553 O VAL C 552 132.288 168.461 169.698 1.00 46.75 O
ATOM 3554 CB VAL C 552 130.627 166.085 171.390 1.00 46.75 C
ATOM 3555 CG1 VAL C 552 129.353 166.709 171.881 1.00 46.75 C
ATOM 3556 CG2 VAL C 552 130.542 164.579 171.494 1.00 46.75 C
ATOM 3557 N THR C 553 130.076 168.789 169.879 1.00 44.89 N
ATOM 3558 CA THR C 553 130.157 170.237 169.718 1.00 44.89 C
ATOM 3559 C THR C 553 129.606 170.918 170.963 1.00 44.89 C
ATOM 3560 O THR C 553 128.424 170.767 171.286 1.00 44.89 O
ATOM 3561 CB THR C 553 129.397 170.703 168.477 1.00 44.89 C
ATOM 3562 OG1 THR C 553 129.957 170.087 167.313 1.00 44.89 O
ATOM 3563 CG2 THR C 553 129.505 172.202 168.334 1.00 44.89 C
ATOM 3564 N ILE C 554 130.467 171.663 171.653 1.00 47.57 N
ATOM 3565 CA ILE C 554 130.141 172.361 172.893 1.00 47.57 C
ATOM 3566 C ILE C 554 129.473 173.701 172.616 1.00 47.57 C
ATOM 3567 O ILE C 554 129.382 174.141 171.466 1.00 47.57 O
ATOM 3568 CB ILE C 554 131.392 172.543 173.766 1.00 47.57 C
ATOM 3569 CG1 ILE C 554 132.380 173.487 173.091 1.00 47.57 C
ATOM 3570 CG2 ILE C 554 132.040 171.205 174.031 1.00 47.57 C
ATOM 3571 CD1 ILE C 554 133.534 173.880 173.976 1.00 47.57 C
ATOM 3572 N ASN C 555 128.992 174.344 173.684 1.00 52.11 N
ATOM 3573 CA ASN C 555 128.184 175.560 173.605 1.00 52.11 C
ATOM 3574 C ASN C 555 128.575 176.520 172.487 1.00 52.11 C
ATOM 3575 O ASN C 555 127.712 177.019 171.758 1.00 52.11 O
ATOM 3576 CB ASN C 555 128.254 176.285 174.946 1.00 52.11 C
ATOM 3577 CG ASN C 555 127.052 177.149 175.191 1.00 52.11 C
ATOM 3578 OD1 ASN C 555 126.252 177.381 174.289 1.00 52.11 O
ATOM 3579 ND2 ASN C 555 126.915 177.641 176.414 1.00 52.11 N
ATOM 3580 N GLN C 556 129.865 176.806 172.339 1.00 50.36 N
ATOM 3581 CA GLN C 556 130.441 177.718 171.356 1.00 50.36 C
ATOM 3582 C GLN C 556 130.313 179.189 171.744 1.00 50.36 C
ATOM 3583 O GLN C 556 130.876 180.033 171.051 1.00 50.36 O
ATOM 3584 CB GLN C 556 129.828 177.551 169.953 1.00 50.36 C
ATOM 3585 CG GLN C 556 130.221 176.285 169.250 1.00 50.36 C

ATOM 3586 CD GLN C 556 131.684 176.257 168.922 1.00 50.36 C
ATOM 3587 OE1 GLN C 556 132.364 177.278 168.987 1.00 50.36 O
ATOM 3588 NE2 GLN C 556 132.186 175.084 168.573 1.00 50.36 N
ATOM 3589 N THR C 557 129.615 179.534 172.826 1.00 54.58 N
ATOM 3590 CA THR C 557 129.512 180.940 173.204 1.00 54.58 C
ATOM 3591 C THR C 557 129.669 181.145 174.705 1.00 54.58 C
ATOM 3592 O THR C 557 129.238 182.178 175.229 1.00 54.58 O
ATOM 3593 CB THR C 557 128.182 181.544 172.753 1.00 54.58 C
ATOM 3594 OG1 THR C 557 128.150 182.934 173.096 1.00 54.58 O
ATOM 3595 CG2 THR C 557 127.029 180.848 173.436 1.00 54.58 C
ATOM 3596 N SER C 558 130.267 180.186 175.408 1.00 51.67 N
ATOM 3597 CA SER C 558 130.582 180.360 176.817 1.00 51.67 C
ATOM 3598 C SER C 558 132.013 179.948 177.126 1.00 51.67 C
ATOM 3599 O SER C 558 132.412 179.981 178.295 1.00 51.67 O
ATOM 3600 CB SER C 558 129.623 179.562 177.694 1.00 51.67 C
ATOM 3601 OG SER C 558 130.114 178.249 177.894 1.00 51.67 O
ATOM 3602 N VAL C 559 132.788 179.559 176.125 1.00 44.69 N
ATOM 3603 CA VAL C 559 134.180 179.183 176.329 1.00 44.69 C
ATOM 3604 C VAL C 559 134.964 180.402 176.786 1.00 44.69 C
ATOM 3605 O VAL C 559 134.667 181.535 176.395 1.00 44.69 O
ATOM 3606 CB VAL C 559 134.766 178.588 175.039 1.00 44.69 C
ATOM 3607 CG1 VAL C 559 136.204 178.191 175.253 1.00 44.69 C
ATOM 3608 CG2 VAL C 559 133.951 177.397 174.602 1.00 44.69 C
ATOM 3609 N LYS C 560 135.969 180.173 177.626 1.00 41.89 N
ATOM 3610 CA LYS C 560 136.829 181.240 178.123 1.00 41.89 C
ATOM 3611 C LYS C 560 138.199 180.653 178.409 1.00 41.89 C
ATOM 3612 O LYS C 560 138.329 179.771 179.261 1.00 41.89 O
ATOM 3613 CB LYS C 560 136.248 181.882 179.383 1.00 41.89 C
ATOM 3614 CG LYS C 560 134.834 182.403 179.214 1.00 41.89 C
ATOM 3615 CD LYS C 560 134.431 183.293 180.376 1.00 41.89 C
ATOM 3616 CE LYS C 560 134.367 182.509 181.672 1.00 41.89 C
ATOM 3617 NZ LYS C 560 133.168 181.632 181.722 1.00 41.89 N
ATOM 3618 N VAL C 561 139.212 181.137 177.700 1.00 37.96 N
ATOM 3619 CA VAL C 561 140.579 180.657 177.849 1.00 37.96 C

ATOM 3620 C VAL C 561 141.297 181.571 178.829 1.00 37.96 C
ATOM 3621 O VAL C 561 141.470 182.766 178.563 1.00 37.96 O
ATOM 3622 CB VAL C 561 141.309 180.616 176.499 1.00 37.96 C
ATOM 3623 CG1 VAL C 561 142.756 180.230 176.697 1.00 37.96 C
ATOM 3624 CG2 VAL C 561 140.629 179.643 175.565 1.00 37.96 C
ATOM 3625 N LEU C 562 141.717 181.014 179.961 1.00 38.79 N
ATOM 3626 CA LEU C 562 142.440 181.797 180.947 1.00 38.79 C
ATOM 3627 C LEU C 562 143.751 182.307 180.352 1.00 38.79 C
ATOM 3628 O LEU C 562 144.198 181.867 179.293 1.00 38.79 O
ATOM 3629 CB LEU C 562 142.701 180.965 182.200 1.00 38.79 C
ATOM 3630 CG LEU C 562 141.462 180.417 182.905 1.00 38.79 C
ATOM 3631 CD1 LEU C 562 141.794 180.033 184.329 1.00 38.79 C
ATOM 3632 CD2 LEU C 562 140.346 181.435 182.880 1.00 38.79 C
ATOM 3633 N ARG C 563 144.371 183.250 181.053 1.00 45.07 N
ATOM 3634 CA ARG C 563 145.577 183.917 180.574 1.00 45.07 C
ATOM 3635 C ARG C 563 146.644 183.935 181.656 1.00 45.07 C
ATOM 3636 O ARG C 563 147.285 184.953 181.920 1.00 45.07 O
ATOM 3637 CB ARG C 563 145.259 185.327 180.099 1.00 45.07 C
ATOM 3638 CG ARG C 563 144.792 186.254 181.195 1.00 45.07 C
ATOM 3639 CD ARG C 563 144.915 187.701 180.765 1.00 45.07 C
ATOM 3640 NE ARG C 563 143.920 188.057 179.761 1.00 45.07 N
ATOM 3641 CZ ARG C 563 143.994 189.134 178.986 1.00 45.07 C
ATOM 3642 NH1 ARG C 563 143.043 189.383 178.099 1.00 45.07 N
ATOM 3643 NH2 ARG C 563 145.023 189.960 179.096 1.00 45.07 N
ATOM 3644 N ASP C 564 146.843 182.793 182.305 1.00 50.47 N
ATOM 3645 CA ASP C 564 147.913 182.639 183.286 1.00 50.47 C
ATOM 3646 C ASP C 564 148.124 181.153 183.512 1.00 50.47 C
ATOM 3647 O ASP C 564 147.183 180.450 183.890 1.00 50.47 O
ATOM 3648 CB ASP C 564 147.569 183.346 184.591 1.00 50.47 C
ATOM 3649 CG ASP C 564 148.749 183.435 185.529 1.00 50.47 C
ATOM 3650 OD1 ASP C 564 149.794 182.825 185.231 1.00 50.47 O
ATOM 3651 OD2 ASP C 564 148.637 184.119 186.566 1.00 50.47 O
ATOM 3652 N MET C 565 149.343 180.675 183.283 1.00 48.38 N
ATOM 3653 CA MET C 565 149.661 179.255 183.366 1.00 48.38 C

ATOM 3654 C MET C 565 150.524 178.942 184.584 1.00 48.38 C
ATOM 3655 O MET C 565 151.417 178.096 184.532 1.00 48.38 O
ATOM 3656 CB MET C 565 150.347 178.786 182.089 1.00 48.38 C
ATOM 3657 CG MET C 565 149.544 179.045 180.833 1.00 48.38 C
ATOM 3658 SD MET C 565 149.897 177.870 179.518 1.00 48.38 S
ATOM 3659 CE MET C 565 151.667 178.047 179.373 1.00 48.38 C
ATOM 3660 N ASN C 566 150.264 179.621 185.694 1.00 52.74 N
ATOM 3661 CA ASN C 566 150.952 179.382 186.955 1.00 52.74 C
ATOM 3662 C ASN C 566 149.999 178.692 187.918 1.00 52.74 C
ATOM 3663 O ASN C 566 148.893 179.185 188.161 1.00 52.74 O
ATOM 3664 CB ASN C 566 151.450 180.692 187.568 1.00 52.74 C
ATOM 3665 CG ASN C 566 152.823 181.080 187.077 1.00 52.74 C
ATOM 3666 OD1 ASN C 566 153.760 180.291 187.131 1.00 52.74 O
ATOM 3667 ND2 ASN C 566 152.950 182.308 186.595 1.00 52.74 N
ATOM 3668 N VAL C 567 150.425 177.556 188.465 1.00 58.06 N
ATOM 3669 CA VAL C 567 149.610 176.862 189.454 1.00 58.06 C
ATOM 3670 C VAL C 567 149.582 177.698 190.725 1.00 58.06 C
ATOM 3671 O VAL C 567 150.624 177.946 191.343 1.00 58.06 O
ATOM 3672 CB VAL C 567 150.151 175.454 189.724 1.00 58.06 C
ATOM 3673 CG1 VAL C 567 149.135 174.637 190.491 1.00 58.06 C
ATOM 3674 CG2 VAL C 567 150.510 174.771 188.426 1.00 58.06 C
ATOM 3675 N LYS C 568 148.391 178.145 191.119 1.00 64.75 N
ATOM 3676 CA LYS C 568 148.275 179.041 192.261 1.00 64.75 C
ATOM 3677 C LYS C 568 148.493 178.338 193.591 1.00 64.75 C
ATOM 3678 O LYS C 568 148.815 179.002 194.582 1.00 64.75 O
ATOM 3679 CB LYS C 568 146.904 179.717 192.266 1.00 64.75 C
ATOM 3680 CG LYS C 568 146.766 180.847 191.264 1.00 64.75 C
ATOM 3681 CD LYS C 568 145.528 181.678 191.544 1.00 64.75 C
ATOM 3682 CE LYS C 568 145.363 182.780 190.515 1.00 64.75 C
ATOM 3683 NZ LYS C 568 145.102 182.227 189.158 1.00 64.75 N
ATOM 3684 N GLU C 569 148.334 177.018 193.637 1.00 70.01 N
ATOM 3685 CA GLU C 569 148.446 176.296 194.899 1.00 70.01 C
ATOM 3686 C GLU C 569 149.901 176.019 195.256 1.00 70.01 C
ATOM 3687 O GLU C 569 150.401 176.489 196.284 1.00 70.01 O

ATOM 3688 CB GLU C 569 147.653 174.990 194.817 1.00 70.01 C
ATOM 3689 CG GLU C 569 146.182 175.185 194.493 1.00 70.01 C
ATOM 3690 CD GLU C 569 145.639 174.107 193.576 1.00 70.01 C
ATOM 3691 OE1 GLU C 569 146.361 173.121 193.319 1.00 70.01 O
ATOM 3692 OE2 GLU C 569 144.489 174.243 193.112 1.00 70.01 O
ATOM 3693 N SER C 570 150.603 175.268 194.407 1.00 66.73 N
ATOM 3694 CA SER C 570 151.952 174.811 194.704 1.00 66.73 C
ATOM 3695 C SER C 570 152.964 175.623 193.909 1.00 66.73 C
ATOM 3696 O SER C 570 153.204 175.319 192.733 1.00 66.73 O
ATOM 3697 CB SER C 570 152.091 173.322 194.385 1.00 66.73 C
ATOM 3698 OG SER C 570 151.730 173.059 193.041 1.00 66.73 O
ATOM 3699 N PRO C 571 153.584 176.645 194.491 1.00 66.74 N
ATOM 3700 CA PRO C 571 154.589 177.410 193.745 1.00 66.74 C
ATOM 3701 C PRO C 571 155.717 176.512 193.267 1.00 66.74 C
ATOM 3702 O PRO C 571 156.167 175.614 193.981 1.00 66.74 O
ATOM 3703 CB PRO C 571 155.082 178.442 194.767 1.00 66.74 C
ATOM 3704 CG PRO C 571 154.695 177.890 196.094 1.00 66.74 C
ATOM 3705 CD PRO C 571 153.425 177.137 195.867 1.00 66.74 C
ATOM 3706 N GLY C 572 156.174 176.762 192.043 1.00 63.76 N
ATOM 3707 CA GLY C 572 157.209 175.976 191.410 1.00 63.76 C
ATOM 3708 C GLY C 572 156.739 175.175 190.218 1.00 63.76 C
ATOM 3709 O GLY C 572 157.558 174.840 189.354 1.00 63.76 O
ATOM 3710 N ARG C 573 155.450 174.861 190.143 1.00 60.93 N
ATOM 3711 CA ARG C 573 154.875 174.139 189.021 1.00 60.93 C
ATOM 3712 C ARG C 573 154.087 175.096 188.138 1.00 60.93 C
ATOM 3713 O ARG C 573 153.591 176.128 188.597 1.00 60.93 O
ATOM 3714 CB ARG C 573 153.966 173.006 189.499 1.00 60.93 C
ATOM 3715 CG ARG C 573 154.582 172.136 190.572 1.00 60.93 C
ATOM 3716 CD ARG C 573 155.635 171.215 189.989 1.00 60.93 C
ATOM 3717 NE ARG C 573 155.059 170.226 189.085 1.00 60.93 N
ATOM 3718 CZ ARG C 573 155.752 169.252 188.507 1.00 60.93 C
ATOM 3719 NH1 ARG C 573 157.052 169.135 188.735 1.00 60.93 N
ATOM 3720 NH2 ARG C 573 155.147 168.395 187.700 1.00 60.93 N
ATOM 3721 N CYS C 574 153.975 174.742 186.861 1.00 55.37 N

```
ATOM   3722  CA  CYS C 574     153.323 175.586 185.873  1.00 55.37           C
ATOM   3723  C   CYS C 574     152.653 174.704 184.833  1.00 55.37           C
ATOM   3724  O   CYS C 574     153.213 173.687 184.424  1.00 55.37           O
ATOM   3725  CB  CYS C 574     154.332 176.535 185.220  1.00 55.37           C
ATOM   3726  SG  CYS C 574     155.056 177.738 186.376  1.00 55.37           S
ATOM   3727  N   TYR C 575     151.450 175.093 184.415  1.00 47.65           N
ATOM   3728  CA  TYR C 575     150.679 174.276 183.490  1.00 47.65           C
ATOM   3729  C   TYR C 575     151.452 174.064 182.192  1.00 47.65           C
ATOM   3730  O   TYR C 575     152.453 174.721 181.913  1.00 47.65           O
ATOM   3731  CB  TYR C 575     149.331 174.927 183.190  1.00 47.65           C
ATOM   3732  CG  TYR C 575     148.315 174.799 184.298  1.00 47.65           C
ATOM   3733  CD1 TYR C 575     147.876 173.559 184.724  1.00 47.65           C
ATOM   3734  CD2 TYR C 575     147.789 175.921 184.912  1.00 47.65           C
ATOM   3735  CE1 TYR C 575     146.949 173.442 185.735  1.00 47.65           C
ATOM   3736  CE2 TYR C 575     146.864 175.814 185.921  1.00 47.65           C
ATOM   3737  CZ  TYR C 575     146.447 174.573 186.329  1.00 47.65           C
ATOM   3738  OH  TYR C 575     145.521 174.467 187.338  1.00 47.65           O
ATOM   3739  N   SER C 576     150.964 173.120 181.388  1.00 43.65           N
ATOM   3740  CA  SER C 576     151.577 172.797 180.110  1.00 43.65           C
ATOM   3741  C   SER C 576     150.739 173.219 178.915  1.00 43.65           C
ATOM   3742  O   SER C 576     151.279 173.330 177.812  1.00 43.65           O
ATOM   3743  CB  SER C 576     151.847 171.291 180.017  1.00 43.65           C
ATOM   3744  OG  SER C 576     152.792 171.001 179.006  1.00 43.65           O
ATOM   3745  N   ARG C 577     149.446 173.449 179.107  1.00 38.69           N
ATOM   3746  CA  ARG C 577     148.522 173.906 178.084  1.00 38.69           C
ATOM   3747  C   ARG C 577     147.542 174.866 178.735  1.00 38.69           C
ATOM   3748  O   ARG C 577     147.210 174.704 179.914  1.00 38.69           O
ATOM   3749  CB  ARG C 577     147.755 172.738 177.447  1.00 38.69           C
ATOM   3750  CG  ARG C 577     148.614 171.743 176.697  1.00 38.69           C
ATOM   3751  CD  ARG C 577     148.996 172.295 175.346  1.00 38.69           C
ATOM   3752  NE  ARG C 577     149.173 171.257 174.341  1.00 38.69           N
ATOM   3753  CZ  ARG C 577     149.239 171.494 173.036  1.00 38.69           C
ATOM   3754  NH1 ARG C 577     149.140 172.734 172.581  1.00 38.69           N
ATOM   3755  NH2 ARG C 577     149.403 170.494 172.186  1.00 38.69           N
```

ATOM 3756 N PRO C 578 147.066 175.867 178.008 1.00 35.43 N
ATOM 3757 CA PRO C 578 146.081 176.787 178.592 1.00 35.43 C
ATOM 3758 C PRO C 578 144.917 176.030 179.206 1.00 35.43 C
ATOM 3759 O PRO C 578 144.675 174.877 178.845 1.00 35.43 O
ATOM 3760 CB PRO C 578 145.638 177.634 177.396 1.00 35.43 C
ATOM 3761 CG PRO C 578 146.754 177.540 176.432 1.00 35.43 C
ATOM 3762 CD PRO C 578 147.350 176.181 176.601 1.00 35.43 C
ATOM 3763 N VAL C 579 144.188 176.651 180.126 1.00 36.68 N
ATOM 3764 CA VAL C 579 143.107 175.988 180.845 1.00 36.68 C
ATOM 3765 C VAL C 579 141.797 176.661 180.463 1.00 36.68 C
ATOM 3766 O VAL C 579 141.654 177.880 180.609 1.00 36.68 O
ATOM 3767 CB VAL C 579 143.328 176.026 182.363 1.00 36.68 C
ATOM 3768 CG1 VAL C 579 143.516 177.449 182.821 1.00 36.68 C
ATOM 3769 CG2 VAL C 579 142.166 175.391 183.077 1.00 36.68 C
ATOM 3770 N VAL C 580 140.844 175.867 179.977 1.00 39.18 N
ATOM 3771 CA VAL C 580 139.571 176.362 179.468 1.00 39.18 C
ATOM 3772 C VAL C 580 138.459 175.954 180.422 1.00 39.18 C
ATOM 3773 O VAL C 580 138.568 174.955 181.139 1.00 39.18 O
ATOM 3774 CB VAL C 580 139.290 175.821 178.052 1.00 39.18 C
ATOM 3775 CG1 VAL C 580 138.060 176.471 177.477 1.00 39.18 C
ATOM 3776 CG2 VAL C 580 140.477 176.055 177.156 1.00 39.18 C
ATOM 3777 N ILE C 581 137.377 176.730 180.425 1.00 42.91 N
ATOM 3778 CA ILE C 581 136.183 176.419 181.212 1.00 42.91 C
ATOM 3779 C ILE C 581 134.990 176.479 180.260 1.00 42.91 C
ATOM 3780 O ILE C 581 134.367 177.528 180.077 1.00 42.91 O
ATOM 3781 CB ILE C 581 136.001 177.359 182.408 1.00 42.91 C
ATOM 3782 CG1 ILE C 581 135.695 178.781 181.956 1.00 42.91 C
ATOM 3783 CG2 ILE C 581 137.248 177.369 183.259 1.00 42.91 C
ATOM 3784 CD1 ILE C 581 135.258 179.679 183.080 1.00 42.91 C
ATOM 3785 N PHE C 582 134.659 175.345 179.654 1.00 46.91 N
ATOM 3786 CA PHE C 582 133.592 175.275 178.669 1.00 46.91 C
ATOM 3787 C PHE C 582 132.279 174.875 179.337 1.00 46.91 C
ATOM 3788 O PHE C 582 132.139 174.908 180.561 1.00 46.91 O
ATOM 3789 CB PHE C 582 133.974 174.323 177.541 1.00 46.91 C

ATOM 3790 CG PHE C 582 134.208 172.918 177.986 1.00 46.91 C
ATOM 3791 CD1 PHE C 582 133.168 172.016 178.039 1.00 46.91 C
ATOM 3792 CD2 PHE C 582 135.469 172.495 178.338 1.00 46.91 C
ATOM 3793 CE1 PHE C 582 133.383 170.721 178.442 1.00 46.91 C
ATOM 3794 CE2 PHE C 582 135.689 171.201 178.740 1.00 46.91 C
ATOM 3795 CZ PHE C 582 134.645 170.313 178.793 1.00 46.91 C
ATOM 3796 N ASN C 583 131.290 174.515 178.524 1.00 50.90 N
ATOM 3797 CA ASN C 583 129.955 174.196 179.008 1.00 50.90 C
ATOM 3798 C ASN C 583 129.208 173.408 177.939 1.00 50.90 C
ATOM 3799 O ASN C 583 129.054 173.894 176.816 1.00 50.90 O
ATOM 3800 CB ASN C 583 129.212 175.485 179.354 1.00 50.90 C
ATOM 3801 CG ASN C 583 128.237 175.308 180.480 1.00 50.90 C
ATOM 3802 OD1 ASN C 583 127.910 174.187 180.857 1.00 50.90 O
ATOM 3803 ND2 ASN C 583 127.755 176.415 181.026 1.00 50.90 N
ATOM 3804 N PHE C 584 128.737 172.202 178.256 1.00 52.11 N
ATOM 3805 CA PHE C 584 128.143 171.359 177.219 1.00 52.11 C
ATOM 3806 C PHE C 584 126.906 171.976 176.585 1.00 52.11 C
ATOM 3807 O PHE C 584 126.474 173.066 176.967 1.00 52.11 O
ATOM 3808 CB PHE C 584 127.787 169.974 177.761 1.00 52.11 C
ATOM 3809 CG PHE C 584 128.958 169.050 177.868 1.00 52.11 C
ATOM 3810 CD1 PHE C 584 129.411 168.368 176.753 1.00 52.11 C
ATOM 3811 CD2 PHE C 584 129.606 168.868 179.064 1.00 52.11 C
ATOM 3812 CE1 PHE C 584 130.487 167.520 176.838 1.00 52.11 C
ATOM 3813 CE2 PHE C 584 130.684 168.013 179.150 1.00 52.11 C
ATOM 3814 CZ PHE C 584 131.126 167.343 178.031 1.00 52.11 C
ATOM 3815 N ALA C 585 126.341 171.270 175.610 1.00 55.03 N
ATOM 3816 CA ALA C 585 125.230 171.769 174.807 1.00 55.03 C
ATOM 3817 C ALA C 585 123.979 171.820 175.666 1.00 55.03 C
ATOM 3818 O ALA C 585 123.384 170.791 175.983 1.00 55.03 O
ATOM 3819 CB ALA C 585 125.016 170.882 173.587 1.00 55.03 C
ATOM 3820 N ASN C 586 123.569 173.025 176.046 1.00 64.53 N
ATOM 3821 CA ASN C 586 122.365 173.220 176.845 1.00 64.53 C
ATOM 3822 C ASN C 586 122.458 172.468 178.174 1.00 64.53 C
ATOM 3823 O ASN C 586 121.706 171.532 178.452 1.00 64.53 O

ATOM 3824 CB ASN C 586 121.120 172.799 176.066 1.00 64.53 C
ATOM 3825 CG ASN C 586 119.851 173.014 176.854 1.00 64.53 C
ATOM 3826 OD1 ASN C 586 119.218 172.063 177.303 1.00 64.53 O
ATOM 3827 ND2 ASN C 586 119.474 174.273 177.034 1.00 64.53 N
ATOM 3828 N SER C 587 123.411 172.896 178.996 1.00 65.21 N
ATOM 3829 CA SER C 587 123.560 172.397 180.352 1.00 65.21 C
ATOM 3830 C SER C 587 123.836 173.570 181.282 1.00 65.21 C
ATOM 3831 O SER C 587 124.058 174.703 180.847 1.00 65.21 O
ATOM 3832 CB SER C 587 124.681 171.357 180.446 1.00 65.21 C
ATOM 3833 OG SER C 587 124.302 170.147 179.820 1.00 65.21 O
ATOM 3834 N SER C 588 123.830 173.283 182.577 1.00 68.97 N
ATOM 3835 CA SER C 588 124.185 174.244 183.614 1.00 68.97 C
ATOM 3836 C SER C 588 125.249 173.619 184.502 1.00 68.97 C
ATOM 3837 O SER C 588 125.160 173.623 185.729 1.00 68.97 O
ATOM 3838 CB SER C 588 122.960 174.663 184.422 1.00 68.97 C
ATOM 3839 OG SER C 588 123.338 175.151 185.697 1.00 68.97 O
ATOM 3840 N CYS C 589 126.276 173.060 183.869 1.00 67.53 N
ATOM 3841 CA CYS C 589 127.119 172.065 184.519 1.00 67.53 C
ATOM 3842 C CYS C 589 128.555 172.420 184.160 1.00 67.53 C
ATOM 3843 O CYS C 589 129.085 171.919 183.164 1.00 67.53 O
ATOM 3844 CB CYS C 589 126.720 170.677 184.012 1.00 67.53 C
ATOM 3845 SG CYS C 589 127.063 169.196 184.992 1.00 67.53 S
ATOM 3846 N VAL C 590 129.187 173.271 184.972 1.00 58.07 N
ATOM 3847 CA VAL C 590 130.464 173.860 184.585 1.00 58.07 C
ATOM 3848 C VAL C 590 131.575 172.823 184.671 1.00 58.07 C
ATOM 3849 O VAL C 590 131.542 171.907 185.503 1.00 58.07 O
ATOM 3850 CB VAL C 590 130.789 175.083 185.458 1.00 58.07 C
ATOM 3851 CG1 VAL C 590 132.121 175.667 185.051 1.00 58.07 C
ATOM 3852 CG2 VAL C 590 129.699 176.116 185.333 1.00 58.07 C
ATOM 3853 N GLN C 591 132.580 172.979 183.814 1.00 53.36 N
ATOM 3854 CA GLN C 591 133.665 172.016 183.724 1.00 53.36 C
ATOM 3855 C GLN C 591 134.955 172.724 183.341 1.00 53.36 C
ATOM 3856 O GLN C 591 134.965 173.911 183.010 1.00 53.36 O
ATOM 3857 CB GLN C 591 133.336 170.911 182.720 1.00 53.36 C

ATOM 3858 CG GLN C 591 132.156 170.061 183.127 1.00 53.36 C
ATOM 3859 CD GLN C 591 131.926 168.923 182.173 1.00 53.36 C
ATOM 3860 OE1 GLN C 591 132.629 168.793 181.177 1.00 53.36 O
ATOM 3861 NE2 GLN C 591 130.945 168.085 182.471 1.00 53.36 N
ATOM 3862 N TYR C 592 136.055 171.974 183.387 1.00 47.90 N
ATOM 3863 CA TYR C 592 137.387 172.492 183.114 1.00 47.90 C
ATOM 3864 C TYR C 592 138.108 171.568 182.145 1.00 47.90 C
ATOM 3865 O TYR C 592 137.955 170.347 182.211 1.00 47.90 O
ATOM 3866 CB TYR C 592 138.204 172.625 184.402 1.00 47.90 C
ATOM 3867 CG TYR C 592 137.655 173.640 185.373 1.00 47.90 C
ATOM 3868 CD1 TYR C 592 136.602 173.323 186.216 1.00 47.90 C
ATOM 3869 CD2 TYR C 592 138.188 174.917 185.447 1.00 47.90 C
ATOM 3870 CE1 TYR C 592 136.095 174.249 187.104 1.00 47.90 C
ATOM 3871 CE2 TYR C 592 137.687 175.848 186.331 1.00 47.90 C
ATOM 3872 CZ TYR C 592 136.640 175.509 187.157 1.00 47.90 C
ATOM 3873 OH TYR C 592 136.137 176.433 188.041 1.00 47.90 O
ATOM 3874 N GLY C 593 138.893 172.155 181.247 1.00 40.27 N
ATOM 3875 CA GLY C 593 139.656 171.380 180.289 1.00 40.27 C
ATOM 3876 C GLY C 593 140.960 172.055 179.933 1.00 40.27 C
ATOM 3877 O GLY C 593 141.370 172.995 180.617 1.00 40.27 O
ATOM 3878 N GLN C 594 141.624 171.602 178.873 1.00 39.10 N
ATOM 3879 CA GLN C 594 142.883 172.198 178.448 1.00 39.10 C
ATOM 3880 C GLN C 594 142.926 172.267 176.931 1.00 39.10 C
ATOM 3881 O GLN C 594 142.643 171.276 176.255 1.00 39.10 O
ATOM 3882 CB GLN C 594 144.077 171.401 178.976 1.00 39.10 C
ATOM 3883 CG GLN C 594 144.403 171.689 180.423 1.00 39.10 C
ATOM 3884 CD GLN C 594 145.689 171.045 180.861 1.00 39.10 C
ATOM 3885 OE1 GLN C 594 145.933 169.877 180.584 1.00 39.10 O
ATOM 3886 NE2 GLN C 594 146.527 171.807 181.546 1.00 39.10 N
ATOM 3887 N LEU C 595 143.296 173.429 176.405 1.00 39.06 N
ATOM 3888 CA LEU C 595 143.229 173.675 174.970 1.00 39.06 C
ATOM 3889 C LEU C 595 144.156 172.742 174.206 1.00 39.06 C
ATOM 3890 O LEU C 595 145.369 172.739 174.426 1.00 39.06 O
ATOM 3891 CB LEU C 595 143.591 175.128 174.676 1.00 39.06 C

ATOM 3892 CG LEU C 595 143.183 175.654 173.306 1.00 39.06 C
ATOM 3893 CD1 LEU C 595 141.719 176.035 173.311 1.00 39.06 C
ATOM 3894 CD2 LEU C 595 144.044 176.836 172.929 1.00 39.06 C
ATOM 3895 N GLY C 596 143.584 171.967 173.291 1.00 44.76 N
ATOM 3896 CA GLY C 596 144.366 171.095 172.439 1.00 44.76 C
ATOM 3897 C GLY C 596 144.932 171.824 171.242 1.00 44.76 C
ATOM 3898 O GLY C 596 145.385 172.965 171.366 1.00 44.76 O
ATOM 3899 N GLU C 597 144.913 171.184 170.078 1.00 53.40 N
ATOM 3900 CA GLU C 597 145.402 171.777 168.841 1.00 53.40 C
ATOM 3901 C GLU C 597 144.257 171.914 167.849 1.00 53.40 C
ATOM 3902 O GLU C 597 143.530 170.949 167.599 1.00 53.40 O
ATOM 3903 CB GLU C 597 146.523 170.935 168.234 1.00 53.40 C
ATOM 3904 CG GLU C 597 146.960 171.405 166.862 1.00 53.40 C
ATOM 3905 CD GLU C 597 148.240 170.743 166.398 1.00 53.40 C
ATOM 3906 OE1 GLU C 597 148.836 169.977 167.184 1.00 53.40 O
ATOM 3907 OE2 GLU C 597 148.652 170.992 165.247 1.00 53.40 O
ATOM 3908 N ASP C 598 144.114 173.106 167.273 1.00 53.30 N
ATOM 3909 CA ASP C 598 143.046 173.396 166.316 1.00 53.30 C
ATOM 3910 C ASP C 598 141.676 173.405 166.994 1.00 53.30 C
ATOM 3911 O ASP C 598 140.709 172.834 166.494 1.00 53.30 O
ATOM 3912 CB ASP C 598 143.071 172.406 165.150 1.00 53.30 C
ATOM 3913 CG ASP C 598 143.886 172.909 163.979 1.00 53.30 C
ATOM 3914 OD1 ASP C 598 143.878 174.131 163.731 1.00 53.30 O
ATOM 3915 OD2 ASP C 598 144.534 172.081 163.305 1.00 53.30 O
ATOM 3916 N ASN C 599 141.603 174.065 168.147 1.00 48.24 N
ATOM 3917 CA ASN C 599 140.348 174.361 168.825 1.00 48.24 C
ATOM 3918 C ASN C 599 139.672 173.137 169.425 1.00 48.24 C
ATOM 3919 O ASN C 599 138.512 173.218 169.831 1.00 48.24 O
ATOM 3920 CB ASN C 599 139.368 175.067 167.886 1.00 48.24 C
ATOM 3921 CG ASN C 599 139.379 176.563 168.055 1.00 48.24 C
ATOM 3922 OD1 ASN C 599 139.602 177.071 169.150 1.00 48.24 O
ATOM 3923 ND2 ASN C 599 139.124 177.281 166.972 1.00 48.24 N
ATOM 3924 N GLU C 600 140.348 171.997 169.496 1.00 48.19 N
ATOM 3925 CA GLU C 600 139.768 170.829 170.143 1.00 48.19 C

ATOM 3926 C GLU C 600 140.123 170.851 171.620 1.00 48.19 C
ATOM 3927 O GLU C 600 141.275 171.104 171.984 1.00 48.19 O
ATOM 3928 CB GLU C 600 140.256 169.531 169.505 1.00 48.19 C
ATOM 3929 CG GLU C 600 141.584 169.046 170.024 1.00 48.19 C
ATOM 3930 CD GLU C 600 141.780 167.567 169.787 1.00 48.19 C
ATOM 3931 OE1 GLU C 600 140.825 166.914 169.322 1.00 48.19 O
ATOM 3932 OE2 GLU C 600 142.885 167.057 170.067 1.00 48.19 O
ATOM 3933 N ILE C 601 139.136 170.588 172.464 1.00 43.13 N
ATOM 3934 CA ILE C 601 139.285 170.691 173.908 1.00 43.13 C
ATOM 3935 C ILE C 601 139.625 169.320 174.469 1.00 43.13 C
ATOM 3936 O ILE C 601 138.947 168.331 174.170 1.00 43.13 O
ATOM 3937 CB ILE C 601 138.009 171.250 174.554 1.00 43.13 C
ATOM 3938 CG1 ILE C 601 137.959 172.764 174.377 1.00 43.13 C
ATOM 3939 CG2 ILE C 601 137.957 170.883 176.012 1.00 43.13 C
ATOM 3940 CD1 ILE C 601 136.673 173.382 174.832 1.00 43.13 C
ATOM 3941 N LEU C 602 140.682 169.260 175.271 1.00 42.28 N
ATOM 3942 CA LEU C 602 141.055 168.042 175.971 1.00 42.28 C
ATOM 3943 C LEU C 602 140.402 168.028 177.343 1.00 42.28 C
ATOM 3944 O LEU C 602 140.400 169.037 178.051 1.00 42.28 O
ATOM 3945 CB LEU C 602 142.573 167.943 176.119 1.00 42.28 C
ATOM 3946 CG LEU C 602 143.424 168.036 174.855 1.00 42.28 C
ATOM 3947 CD1 LEU C 602 144.867 168.301 175.212 1.00 42.28 C
ATOM 3948 CD2 LEU C 602 143.310 166.765 174.051 1.00 42.28 C
ATOM 3949 N LEU C 603 139.840 166.883 177.713 1.00 47.57 N
ATOM 3950 CA LEU C 603 139.237 166.757 179.028 1.00 47.57 C
ATOM 3951 C LEU C 603 140.315 166.736 180.108 1.00 47.57 C
ATOM 3952 O LEU C 603 141.488 166.449 179.853 1.00 47.57 O
ATOM 3953 CB LEU C 603 138.384 165.492 179.107 1.00 47.57 C
ATOM 3954 CG LEU C 603 137.011 165.548 178.441 1.00 47.57 C
ATOM 3955 CD1 LEU C 603 136.426 164.157 178.316 1.00 47.57 C
ATOM 3956 CD2 LEU C 603 136.074 166.447 179.222 1.00 47.57 C
ATOM 3957 N GLY C 604 139.904 167.050 181.331 1.00 48.70 N
ATOM 3958 CA GLY C 604 140.802 167.036 182.464 1.00 48.70 C
ATOM 3959 C GLY C 604 141.553 168.341 182.644 1.00 48.70 C

ATOM 3960 O GLY C 604 141.510 169.251 181.815 1.00 48.70 O
ATOM 3961 N ASN C 605 142.257 168.427 183.773 1.00 50.73 N
ATOM 3962 CA ASN C 605 142.948 169.644 184.175 1.00 50.73 C
ATOM 3963 C ASN C 605 144.292 169.335 184.829 1.00 50.73 C
ATOM 3964 O ASN C 605 144.722 170.055 185.735 1.00 50.73 O
ATOM 3965 CB ASN C 605 142.072 170.457 185.124 1.00 50.73 C
ATOM 3966 CG ASN C 605 142.623 171.826 185.393 1.00 50.73 C
ATOM 3967 OD1 ASN C 605 143.495 172.302 184.675 1.00 50.73 O
ATOM 3968 ND2 ASN C 605 142.117 172.474 186.433 1.00 50.73 N
ATOM 3969 N HIS C 606 144.970 168.275 184.387 1.00 51.59 N
ATOM 3970 CA HIS C 606 145.991 167.622 185.198 1.00 51.59 C
ATOM 3971 C HIS C 606 147.318 167.455 184.467 1.00 51.59 C
ATOM 3972 O HIS C 606 148.038 166.486 184.712 1.00 51.59 O
ATOM 3973 CB HIS C 606 145.495 166.255 185.654 1.00 51.59 C
ATOM 3974 CG HIS C 606 145.278 165.299 184.524 1.00 51.59 C
ATOM 3975 ND1 HIS C 606 144.077 165.198 183.858 1.00 51.59 N
ATOM 3976 CD2 HIS C 606 146.115 164.419 183.928 1.00 51.59 C
ATOM 3977 CE1 HIS C 606 144.180 164.288 182.907 1.00 51.59 C
ATOM 3978 NE2 HIS C 606 145.407 163.800 182.928 1.00 51.59 N
ATOM 3979 N ARG C 607 147.669 168.372 183.575 1.00 45.22 N
ATOM 3980 CA ARG C 607 148.924 168.285 182.831 1.00 45.22 C
ATOM 3981 C ARG C 607 149.799 169.465 183.240 1.00 45.22 C
ATOM 3982 O ARG C 607 149.620 170.579 182.743 1.00 45.22 O
ATOM 3983 CB ARG C 607 148.671 168.265 181.329 1.00 45.22 C
ATOM 3984 CG ARG C 607 147.679 167.205 180.892 1.00 45.22 C
ATOM 3985 CD ARG C 607 147.125 167.487 179.510 1.00 45.22 C
ATOM 3986 NE ARG C 607 146.273 166.404 179.036 1.00 45.22 N
ATOM 3987 CZ ARG C 607 144.967 166.330 179.261 1.00 45.22 C
ATOM 3988 NH1 ARG C 607 144.359 167.279 179.953 1.00 45.22 N
ATOM 3989 NH2 ARG C 607 144.268 165.308 178.795 1.00 45.22 N
ATOM 3990 N THR C 608 150.744 169.220 184.139 1.00 51.85 N
ATOM 3991 CA THR C 608 151.602 170.255 184.696 1.00 51.85 C
ATOM 3992 C THR C 608 153.052 170.007 184.298 1.00 51.85 C
ATOM 3993 O THR C 608 153.376 169.046 183.600 1.00 51.85 O

ATOM 3994 CB THR C 608 151.462 170.320 186.218 1.00 51.85 C
ATOM 3995 OG1 THR C 608 151.842 169.062 186.787 1.00 51.85 O
ATOM 3996 CG2 THR C 608 150.033 170.635 186.611 1.00 51.85 C
ATOM 3997 N GLU C 609 153.928 170.897 184.753 1.00 56.83 N
ATOM 3998 CA GLU C 609 155.352 170.805 184.463 1.00 56.83 C
ATOM 3999 C GLU C 609 156.095 171.760 185.389 1.00 56.83 C
ATOM 4000 O GLU C 609 155.512 172.691 185.948 1.00 56.83 O
ATOM 4001 CB GLU C 609 155.638 171.115 182.994 1.00 56.83 C
ATOM 4002 CG GLU C 609 155.904 172.579 182.715 1.00 56.83 C
ATOM 4003 CD GLU C 609 156.226 172.843 181.261 1.00 56.83 C
ATOM 4004 OE1 GLU C 609 156.009 171.937 180.432 1.00 56.83 O
ATOM 4005 OE2 GLU C 609 156.697 173.955 180.947 1.00 56.83 O
ATOM 4006 N GLU C 610 157.397 171.523 185.535 1.00 59.69 N
ATOM 4007 CA GLU C 610 158.219 172.237 186.514 1.00 59.69 C
ATOM 4008 C GLU C 610 158.878 173.448 185.855 1.00 59.69 C
ATOM 4009 O GLU C 610 160.077 173.481 185.586 1.00 59.69 O
ATOM 4010 CB GLU C 610 159.252 171.290 187.115 1.00 59.69 C
ATOM 4011 CG GLU C 610 160.311 171.961 187.960 1.00 59.69 C
ATOM 4012 CD GLU C 610 161.601 171.168 188.000 1.00 59.69 C
ATOM 4013 OE1 GLU C 610 162.096 170.782 186.922 1.00 59.69 O
ATOM 4014 OE2 GLU C 610 162.120 170.928 189.110 1.00 59.69 O
ATOM 4015 N CYS C 611 158.056 174.468 185.625 1.00 59.25 N
ATOM 4016 CA CYS C 611 158.409 175.547 184.711 1.00 59.25 C
ATOM 4017 C CYS C 611 159.808 176.090 184.965 1.00 59.25 C
ATOM 4018 O CYS C 611 160.240 176.247 186.108 1.00 59.25 O
ATOM 4019 CB CYS C 611 157.381 176.673 184.803 1.00 59.25 C
ATOM 4020 SG CYS C 611 157.041 177.294 186.450 1.00 59.25 S
ATOM 4021 N GLN C 612 160.505 176.385 183.867 1.00 51.88 N
ATOM 4022 CA GLN C 612 161.878 176.878 183.881 1.00 51.88 C
ATOM 4023 C GLN C 612 161.970 178.068 182.940 1.00 51.88 C
ATOM 4024 O GLN C 612 161.635 177.949 181.759 1.00 51.88 O
ATOM 4025 CB GLN C 612 162.854 175.783 183.451 1.00 51.88 C
ATOM 4026 CG GLN C 612 162.615 175.288 182.034 1.00 51.88 C
ATOM 4027 CD GLN C 612 163.259 173.948 181.767 1.00 51.88 C

ATOM 4028 OE1 GLN C 612 163.608 173.221 182.695 1.00 51.88 O
ATOM 4029 NE2 GLN C 612 163.414 173.607 180.494 1.00 51.88 N
ATOM 4030 N LEU C 613 162.426 179.206 183.458 1.00 45.62 N
ATOM 4031 CA LEU C 613 162.533 180.461 182.732 1.00 45.62 C
ATOM 4032 C LEU C 613 163.917 180.614 182.108 1.00 45.62 C
ATOM 4033 O LEU C 613 164.892 180.038 182.600 1.00 45.62 O
ATOM 4034 CB LEU C 613 162.271 181.632 183.670 1.00 45.62 C
ATOM 4035 CG LEU C 613 160.811 181.904 184.021 1.00 45.62 C
ATOM 4036 CD1 LEU C 613 160.276 180.814 184.909 1.00 45.62 C
ATOM 4037 CD2 LEU C 613 160.684 183.240 184.710 1.00 45.62 C
ATOM 4038 N PRO C 614 164.044 181.382 181.013 1.00 45.02 N
ATOM 4039 CA PRO C 614 162.976 182.044 180.256 1.00 45.02 C
ATOM 4040 C PRO C 614 162.319 181.101 179.255 1.00 45.02 C
ATOM 4041 O PRO C 614 162.981 180.177 178.788 1.00 45.02 O
ATOM 4042 CB PRO C 614 163.709 183.180 179.529 1.00 45.02 C
ATOM 4043 CG PRO C 614 165.106 183.194 180.095 1.00 45.02 C
ATOM 4044 CD PRO C 614 165.366 181.804 180.533 1.00 45.02 C
ATOM 4045 N SER C 615 161.051 181.328 178.920 1.00 45.88 N
ATOM 4046 CA SER C 615 160.306 180.413 178.066 1.00 45.88 C
ATOM 4047 C SER C 615 159.621 181.181 176.943 1.00 45.88 C
ATOM 4048 O SER C 615 159.680 182.410 176.866 1.00 45.88 O
ATOM 4049 CB SER C 615 159.269 179.624 178.869 1.00 45.88 C
ATOM 4050 OG SER C 615 158.233 180.476 179.315 1.00 45.88 O
ATOM 4051 N LEU C 616 158.964 180.426 176.066 1.00 41.00 N
ATOM 4052 CA LEU C 616 158.179 180.943 174.955 1.00 41.00 C
ATOM 4053 C LEU C 616 157.328 179.806 174.415 1.00 41.00 C
ATOM 4054 O LEU C 616 157.828 178.698 174.221 1.00 41.00 O
ATOM 4055 CB LEU C 616 159.074 181.507 173.849 1.00 41.00 C
ATOM 4056 CG LEU C 616 158.342 182.044 172.622 1.00 41.00 C
ATOM 4057 CD1 LEU C 616 157.739 183.402 172.913 1.00 41.00 C
ATOM 4058 CD2 LEU C 616 159.278 182.120 171.437 1.00 41.00 C
ATOM 4059 N LYS C 617 156.049 180.080 174.175 1.00 37.67 N
ATOM 4060 CA LYS C 617 155.125 179.042 173.748 1.00 37.67 C
ATOM 4061 C LYS C 617 154.119 179.634 172.776 1.00 37.67 C

ATOM 4062 O LYS C 617 153.694 180.778 172.938 1.00 37.67 O
ATOM 4063 CB LYS C 617 154.399 178.421 174.942 1.00 37.67 C
ATOM 4064 CG LYS C 617 155.312 177.703 175.917 1.00 37.67 C
ATOM 4065 CD LYS C 617 154.510 176.959 176.967 1.00 37.67 C
ATOM 4066 CE LYS C 617 155.388 176.021 177.766 1.00 37.67 C
ATOM 4067 NZ LYS C 617 155.996 174.976 176.907 1.00 37.67 N
ATOM 4068 N ILE C 618 153.735 178.846 171.774 1.00 34.20 N
ATOM 4069 CA ILE C 618 152.830 179.292 170.721 1.00 34.20 C
ATOM 4070 C ILE C 618 151.884 178.148 170.391 1.00 34.20 C
ATOM 4071 O ILE C 618 152.304 177.138 169.816 1.00 34.20 O
ATOM 4072 CB ILE C 618 153.586 179.749 169.471 1.00 34.20 C
ATOM 4073 CG1 ILE C 618 154.404 180.999 169.783 1.00 34.20 C
ATOM 4074 CG2 ILE C 618 152.620 180.024 168.348 1.00 34.20 C
ATOM 4075 CD1 ILE C 618 155.350 181.392 168.690 1.00 34.20 C
ATOM 4076 N PHE C 619 150.611 178.304 170.742 1.00 37.64 N
ATOM 4077 CA PHE C 619 149.587 177.301 170.484 1.00 37.64 C
ATOM 4078 C PHE C 619 148.741 177.736 169.297 1.00 37.64 C
ATOM 4079 O PHE C 619 148.260 178.872 169.257 1.00 37.64 O
ATOM 4080 CB PHE C 619 148.709 177.093 171.715 1.00 37.64 C
ATOM 4081 CG PHE C 619 149.485 176.871 172.973 1.00 37.64 C
ATOM 4082 CD1 PHE C 619 150.122 175.671 173.202 1.00 37.64 C
ATOM 4083 CD2 PHE C 619 149.585 177.865 173.922 1.00 37.64 C
ATOM 4084 CE1 PHE C 619 150.840 175.467 174.349 1.00 37.64 C
ATOM 4085 CE2 PHE C 619 150.302 177.664 175.072 1.00 37.64 C
ATOM 4086 CZ PHE C 619 150.932 176.463 175.285 1.00 37.64 C
ATOM 4087 N ILE C 620 148.556 176.837 168.345 1.00 45.33 N
ATOM 4088 CA ILE C 620 147.916 177.171 167.078 1.00 45.33 C
ATOM 4089 C ILE C 620 146.421 176.913 167.165 1.00 45.33 C
ATOM 4090 O ILE C 620 145.974 175.891 167.697 1.00 45.33 O
ATOM 4091 CB ILE C 620 148.552 176.379 165.923 1.00 45.33 C
ATOM 4092 CG1 ILE C 620 149.915 176.971 165.571 1.00 45.33 C
ATOM 4093 CG2 ILE C 620 147.644 176.394 164.717 1.00 45.33 C
ATOM 4094 CD1 ILE C 620 150.599 176.274 164.430 1.00 45.33 C
ATOM 4095 N ALA C 621 145.647 177.854 166.637 1.00 49.64 N

ATOM 4096 CA ALA C 621 144.191 177.800 166.563 1.00 49.64 C
ATOM 4097 C ALA C 621 143.739 178.200 165.169 1.00 49.64 C
ATOM 4098 O ALA C 621 142.872 179.056 164.987 1.00 49.64 O
ATOM 4099 CB ALA C 621 143.552 178.694 167.618 1.00 49.64 C
ATOM 4100 N GLY C 622 144.331 177.559 164.163 1.00 57.91 N
ATOM 4101 CA GLY C 622 144.339 178.039 162.794 1.00 57.91 C
ATOM 4102 C GLY C 622 143.093 178.750 162.318 1.00 57.91 C
ATOM 4103 O GLY C 622 141.970 178.292 162.547 1.00 57.91 O
ATOM 4104 N ASN C 623 143.293 179.889 161.661 1.00 59.66 N
ATOM 4105 CA ASN C 623 144.645 180.384 161.438 1.00 59.66 C
ATOM 4106 C ASN C 623 144.933 181.644 162.252 1.00 59.66 C
ATOM 4107 O ASN C 623 144.814 182.764 161.763 1.00 59.66 O
ATOM 4108 CB ASN C 623 144.874 180.655 159.952 1.00 59.66 C
ATOM 4109 CG ASN C 623 143.913 181.679 159.394 1.00 59.66 C
ATOM 4110 OD1 ASN C 623 142.783 181.806 159.863 1.00 59.66 O
ATOM 4111 ND2 ASN C 623 144.358 182.422 158.389 1.00 59.66 N
ATOM 4112 N SER C 624 145.326 181.432 163.504 1.00 51.74 N
ATOM 4113 CA SER C 624 145.754 182.484 164.413 1.00 51.74 C
ATOM 4114 C SER C 624 146.256 181.812 165.680 1.00 51.74 C
ATOM 4115 O SER C 624 145.630 180.869 166.166 1.00 51.74 O
ATOM 4116 CB SER C 624 144.610 183.454 164.724 1.00 51.74 C
ATOM 4117 OG SER C 624 145.036 184.470 165.610 1.00 51.74 O
ATOM 4118 N ALA C 625 147.378 182.290 166.207 1.00 46.41 N
ATOM 4119 CA ALA C 625 148.059 181.616 167.300 1.00 46.41 C
ATOM 4120 C ALA C 625 148.155 182.511 168.528 1.00 46.41 C
ATOM 4121 O ALA C 625 148.225 183.737 168.419 1.00 46.41 O
ATOM 4122 CB ALA C 625 149.461 181.175 166.879 1.00 46.41 C
ATOM 4123 N TYR C 626 148.154 181.880 169.700 1.00 39.35 N
ATOM 4124 CA TYR C 626 148.431 182.560 170.955 1.00 39.35 C
ATOM 4125 C TYR C 626 149.932 182.575 171.206 1.00 39.35 C
ATOM 4126 O TYR C 626 150.656 181.671 170.788 1.00 39.35 O
ATOM 4127 CB TYR C 626 147.735 181.869 172.128 1.00 39.35 C
ATOM 4128 CG TYR C 626 146.249 181.655 171.966 1.00 39.35 C
ATOM 4129 CD1 TYR C 626 145.757 180.548 171.297 1.00 39.35 C

ATOM 4130 CD2 TYR C 626 145.338 182.547 172.505 1.00 39.35 C
ATOM 4131 CE1 TYR C 626 144.404 180.343 171.156 1.00 39.35 C
ATOM 4132 CE2 TYR C 626 143.983 182.350 172.369 1.00 39.35 C
ATOM 4133 CZ TYR C 626 143.522 181.247 171.693 1.00 39.35 C
ATOM 4134 OH TYR C 626 142.171 181.047 171.553 1.00 39.35 O
ATOM 4135 N GLU C 627 150.397 183.607 171.904 1.00 43.34 N
ATOM 4136 CA GLU C 627 151.811 183.734 172.241 1.00 43.34 C
ATOM 4137 C GLU C 627 151.945 183.995 173.733 1.00 43.34 C
ATOM 4138 O GLU C 627 151.609 185.083 174.207 1.00 43.34 O
ATOM 4139 CB GLU C 627 152.477 184.847 171.440 1.00 43.34 C
ATOM 4140 CG GLU C 627 153.933 185.047 171.806 1.00 43.34 C
ATOM 4141 CD GLU C 627 154.597 186.142 171.005 1.00 43.34 C
ATOM 4142 OE1 GLU C 627 153.927 186.739 170.141 1.00 43.34 O
ATOM 4143 OE2 GLU C 627 155.793 186.408 171.240 1.00 43.34 O
ATOM 4144 N TYR C 628 152.446 183.005 174.465 1.00 39.64 N
ATOM 4145 CA TYR C 628 152.667 183.102 175.902 1.00 39.64 C
ATOM 4146 C TYR C 628 154.155 183.278 176.160 1.00 39.64 C
ATOM 4147 O TYR C 628 154.959 182.435 175.753 1.00 39.64 O
ATOM 4148 CB TYR C 628 152.148 181.858 176.620 1.00 39.64 C
ATOM 4149 CG TYR C 628 150.649 181.801 176.771 1.00 39.64 C
ATOM 4150 CD1 TYR C 628 150.028 182.332 177.884 1.00 39.64 C
ATOM 4151 CD2 TYR C 628 149.857 181.205 175.807 1.00 39.64 C
ATOM 4152 CE1 TYR C 628 148.664 182.280 178.030 1.00 39.64 C
ATOM 4153 CE2 TYR C 628 148.491 181.150 175.946 1.00 39.64 C
ATOM 4154 CZ TYR C 628 147.901 181.689 177.060 1.00 39.64 C
ATOM 4155 OH TYR C 628 146.538 181.636 177.208 1.00 39.64 O
ATOM 4156 N VAL C 629 154.519 184.361 176.839 1.00 42.23 N
ATOM 4157 CA VAL C 629 155.906 184.659 177.176 1.00 42.23 C
ATOM 4158 C VAL C 629 156.035 184.651 178.691 1.00 42.23 C
ATOM 4159 O VAL C 629 155.427 185.483 179.374 1.00 42.23 O
ATOM 4160 CB VAL C 629 156.359 186.009 176.602 1.00 42.23 C
ATOM 4161 CG1 VAL C 629 157.783 186.301 177.017 1.00 42.23 C
ATOM 4162 CG2 VAL C 629 156.241 186.004 175.099 1.00 42.23 C
ATOM 4163 N ASP C 630 156.829 183.718 179.213 1.00 46.94 N

ATOM 4164 CA ASP C 630 157.055 183.584 180.648 1.00 46.94 C
ATOM 4165 C ASP C 630 155.797 183.147 181.388 1.00 46.94 C
ATOM 4166 O ASP C 630 155.573 183.543 182.532 1.00 46.94 O
ATOM 4167 CB ASP C 630 157.593 184.881 181.250 1.00 46.94 C
ATOM 4168 CG ASP C 630 159.102 184.906 181.317 1.00 46.94 C
ATOM 4169 OD1 ASP C 630 159.732 183.968 180.793 1.00 46.94 O
ATOM 4170 OD2 ASP C 630 159.659 185.861 181.895 1.00 46.94 O
ATOM 4171 N TYR C 631 154.967 182.326 180.750 1.00 48.83 N
ATOM 4172 CA TYR C 631 153.732 181.841 181.353 1.00 48.83 C
ATOM 4173 C TYR C 631 152.778 183.000 181.649 1.00 48.83 C
ATOM 4174 O TYR C 631 152.331 183.205 182.776 1.00 48.83 O
ATOM 4175 CB TYR C 631 154.037 181.032 182.614 1.00 48.83 C
ATOM 4176 CG TYR C 631 154.997 179.894 182.367 1.00 48.83 C
ATOM 4177 CD1 TYR C 631 154.576 178.734 181.739 1.00 48.83 C
ATOM 4178 CD2 TYR C 631 156.325 179.985 182.745 1.00 48.83 C
ATOM 4179 CE1 TYR C 631 155.447 177.694 181.505 1.00 48.83 C
ATOM 4180 CE2 TYR C 631 157.203 178.950 182.512 1.00 48.83 C
ATOM 4181 CZ TYR C 631 156.758 177.807 181.890 1.00 48.83 C
ATOM 4182 OH TYR C 631 157.625 176.768 181.654 1.00 48.83 O
ATOM 4183 N LEU C 632 152.475 183.759 180.598 1.00 43.17 N
ATOM 4184 CA LEU C 632 151.552 184.884 180.657 1.00 43.17 C
ATOM 4185 C LEU C 632 151.173 185.280 179.240 1.00 43.17 C
ATOM 4186 O LEU C 632 152.034 185.338 178.362 1.00 43.17 O
ATOM 4187 CB LEU C 632 152.167 186.085 181.387 1.00 43.17 C
ATOM 4188 CG LEU C 632 152.374 185.975 182.893 1.00 43.17 C
ATOM 4189 CD1 LEU C 632 153.132 187.174 183.412 1.00 43.17 C
ATOM 4190 CD2 LEU C 632 151.036 185.867 183.580 1.00 43.17 C
ATOM 4191 N PHE C 633 149.889 185.550 179.026 1.00 43.52 N
ATOM 4192 CA PHE C 633 149.427 185.964 177.710 1.00 43.52 C
ATOM 4193 C PHE C 633 150.152 187.227 177.271 1.00 43.52 C
ATOM 4194 O PHE C 633 150.351 188.154 178.059 1.00 43.52 O
ATOM 4195 CB PHE C 633 147.918 186.202 177.733 1.00 43.52 C
ATOM 4196 CG PHE C 633 147.301 186.321 176.372 1.00 43.52 C
ATOM 4197 CD1 PHE C 633 147.270 185.239 175.516 1.00 43.52 C

ATOM 4198 CD2 PHE C 633 146.738 187.510 175.954 1.00 43.52 C
ATOM 4199 CE1 PHE C 633 146.701 185.344 174.270 1.00 43.52 C
ATOM 4200 CE2 PHE C 633 146.168 187.619 174.708 1.00 43.52 C
ATOM 4201 CZ PHE C 633 146.150 186.535 173.866 1.00 43.52 C
ATOM 4202 N LYS C 634 150.558 187.259 176.002 1.00 47.30 N
ATOM 4203 CA LYS C 634 151.249 188.415 175.441 1.00 47.30 C
ATOM 4204 C LYS C 634 150.433 189.096 174.351 1.00 47.30 C
ATOM 4205 O LYS C 634 150.144 190.291 174.464 1.00 47.30 O
ATOM 4206 CB LYS C 634 152.619 187.994 174.904 1.00 47.30 C
ATOM 4207 CG LYS C 634 153.498 189.149 174.491 1.00 47.30 C
ATOM 4208 CD LYS C 634 153.762 190.078 175.655 1.00 47.30 C
ATOM 4209 CE LYS C 634 155.165 190.647 175.581 1.00 47.30 C
ATOM 4210 NZ LYS C 634 155.501 191.078 174.200 1.00 47.30 N
ATOM 4211 N ARG C 635 150.051 188.378 173.298 1.00 49.57 N
ATOM 4212 CA ARG C 635 149.244 188.956 172.231 1.00 49.57 C
ATOM 4213 C ARG C 635 148.955 187.869 171.203 1.00 49.57 C
ATOM 4214 O ARG C 635 149.492 186.760 171.275 1.00 49.57 O
ATOM 4215 CB ARG C 635 149.937 190.150 171.581 1.00 49.57 C
ATOM 4216 CG ARG C 635 151.003 189.780 170.572 1.00 49.57 C
ATOM 4217 CD ARG C 635 151.714 191.021 170.065 1.00 49.57 C
ATOM 4218 NE ARG C 635 152.453 190.762 168.836 1.00 49.57 N
ATOM 4219 CZ ARG C 635 153.592 190.084 168.782 1.00 49.57 C
ATOM 4220 NH1 ARG C 635 154.126 189.597 169.892 1.00 49.57 N
ATOM 4221 NH2 ARG C 635 154.198 189.894 167.620 1.00 49.57 N
ATOM 4222 N MET C 636 148.102 188.207 170.239 1.00 49.26 N
ATOM 4223 CA MET C 636 147.673 187.271 169.207 1.00 49.26 C
ATOM 4224 C MET C 636 148.561 187.421 167.979 1.00 49.26 C
ATOM 4225 O MET C 636 148.627 188.500 167.381 1.00 49.26 O
ATOM 4226 CB MET C 636 146.210 187.510 168.841 1.00 49.26 C
ATOM 4227 CG MET C 636 145.221 186.745 169.695 1.00 49.26 C
ATOM 4228 SD MET C 636 145.056 185.030 169.184 1.00 49.26 S
ATOM 4229 CE MET C 636 143.480 184.619 169.917 1.00 49.26 C
ATOM 4230 N ILE C 637 149.234 186.345 167.606 1.00 53.84 N
ATOM 4231 CA ILE C 637 150.110 186.337 166.445 1.00 53.84 C

ATOM 4232 C ILE C 637 149.308 185.917 165.221 1.00 53.84 C
ATOM 4233 O ILE C 637 148.203 185.382 165.323 1.00 53.84 O
ATOM 4234 CB ILE C 637 151.317 185.408 166.664 1.00 53.84 C
ATOM 4235 CG1 ILE C 637 152.532 185.921 165.901 1.00 53.84 C
ATOM 4236 CG2 ILE C 637 150.987 184.002 166.215 1.00 53.84 C
ATOM 4237 CD1 ILE C 637 153.798 185.172 166.222 1.00 53.84 C
ATOM 4238 N ASP C 638 149.868 186.172 164.043 1.00 62.97 N
ATOM 4239 CA ASP C 638 149.282 185.750 162.779 1.00 62.97 C
ATOM 4240 C ASP C 638 150.223 184.779 162.082 1.00 62.97 C
ATOM 4241 O ASP C 638 151.443 184.961 162.102 1.00 62.97 O
ATOM 4242 CB ASP C 638 149.002 186.950 161.873 1.00 62.97 C
ATOM 4243 CG ASP C 638 150.195 187.876 161.751 1.00 62.97 C
ATOM 4244 OD1 ASP C 638 151.288 187.399 161.387 1.00 62.97 O
ATOM 4245 OD2 ASP C 638 150.040 189.084 162.023 1.00 62.97 O
ATOM 4246 N LEU C 639 149.656 183.748 161.456 1.00 62.54 N
ATOM 4247 CA LEU C 639 150.453 182.655 160.904 1.00 62.54 C
ATOM 4248 C LEU C 639 151.128 183.071 159.595 1.00 62.54 C
ATOM 4249 O LEU C 639 150.928 182.481 158.534 1.00 62.54 O
ATOM 4250 CB LEU C 639 149.588 181.419 160.705 1.00 62.54 C
ATOM 4251 CG LEU C 639 149.269 180.623 161.965 1.00 62.54 C
ATOM 4252 CD1 LEU C 639 148.473 179.381 161.614 1.00 62.54 C
ATOM 4253 CD2 LEU C 639 150.545 180.258 162.695 1.00 62.54 C
ATOM 4254 N SER C 640 151.947 184.116 159.693 1.00 67.22 N
ATOM 4255 CA SER C 640 152.785 184.529 158.577 1.00 67.22 C
ATOM 4256 C SER C 640 154.186 184.933 159.003 1.00 67.22 C
ATOM 4257 O SER C 640 154.974 185.344 158.147 1.00 67.22 O
ATOM 4258 CB SER C 640 152.129 185.684 157.804 1.00 67.22 C
ATOM 4259 OG SER C 640 150.928 185.261 157.183 1.00 67.22 O
ATOM 4260 N SER C 641 154.521 184.838 160.284 1.00 64.94 N
ATOM 4261 CA SER C 641 155.888 185.009 160.747 1.00 64.94 C
ATOM 4262 C SER C 641 156.539 183.681 161.097 1.00 64.94 C
ATOM 4263 O SER C 641 157.575 183.662 161.768 1.00 64.94 O
ATOM 4264 CB SER C 641 155.925 185.951 161.952 1.00 64.94 C
ATOM 4265 OG SER C 641 157.261 186.238 162.330 1.00 64.94 O

ATOM 4266 N ILE C 642 155.950 182.571 160.656 1.00 54.96 N
ATOM 4267 CA ILE C 642 156.448 181.230 160.928 1.00 54.96 C
ATOM 4268 C ILE C 642 156.535 180.512 159.590 1.00 54.96 C
ATOM 4269 O ILE C 642 155.505 180.188 158.988 1.00 54.96 O
ATOM 4270 CB ILE C 642 155.544 180.466 161.902 1.00 54.96 C
ATOM 4271 CG1 ILE C 642 155.342 181.277 163.179 1.00 54.96 C
ATOM 4272 CG2 ILE C 642 156.138 179.118 162.225 1.00 54.96 C
ATOM 4273 CD1 ILE C 642 154.266 180.730 164.070 1.00 54.96 C
ATOM 4274 N SER C 643 157.755 180.263 159.125 1.00 54.47 N
ATOM 4275 CA SER C 643 157.960 179.728 157.787 1.00 54.47 C
ATOM 4276 C SER C 643 157.709 178.227 157.766 1.00 54.47 C
ATOM 4277 O SER C 643 158.269 177.484 158.575 1.00 54.47 O
ATOM 4278 CB SER C 643 159.377 180.031 157.309 1.00 54.47 C
ATOM 4279 OG SER C 643 160.319 179.221 157.983 1.00 54.47 O
ATOM 4280 N THR C 644 156.873 177.784 156.832 1.00 58.22 N
ATOM 4281 CA THR C 644 156.525 176.378 156.719 1.00 58.22 C
ATOM 4282 C THR C 644 157.744 175.558 156.307 1.00 58.22 C
ATOM 4283 O THR C 644 158.827 176.084 156.046 1.00 58.22 O
ATOM 4284 CB THR C 644 155.391 176.196 155.718 1.00 58.22 C
ATOM 4285 OG1 THR C 644 155.641 177.011 154.570 1.00 58.22 O
ATOM 4286 CG2 THR C 644 154.076 176.609 156.337 1.00 58.22 C
ATOM 4287 N VAL C 645 157.559 174.243 156.247 1.00 63.43 N
ATOM 4288 CA VAL C 645 158.627 173.324 155.875 1.00 63.43 C
ATOM 4289 C VAL C 645 158.483 172.840 154.438 1.00 63.43 C
ATOM 4290 O VAL C 645 159.477 172.732 153.721 1.00 63.43 O
ATOM 4291 CB VAL C 645 158.685 172.132 156.852 1.00 63.43 C
ATOM 4292 CG1 VAL C 645 159.642 171.082 156.335 1.00 63.43 C
ATOM 4293 CG2 VAL C 645 159.130 172.598 158.218 1.00 63.43 C
ATOM 4294 N ASP C 646 157.259 172.540 153.998 1.00 75.17 N
ATOM 4295 CA ASP C 646 157.079 172.028 152.643 1.00 75.17 C
ATOM 4296 C ASP C 646 157.646 172.993 151.611 1.00 75.17 C
ATOM 4297 O ASP C 646 158.508 172.622 150.807 1.00 75.17 O
ATOM 4298 CB ASP C 646 155.602 171.763 152.359 1.00 75.17 C
ATOM 4299 CG ASP C 646 155.377 171.226 150.961 1.00 75.17 C

ATOM 4300 OD1 ASP C 646 156.355 170.763 150.339 1.00 75.17 O
ATOM 4301 OD2 ASP C 646 154.226 171.274 150.480 1.00 75.17 O
ATOM 4302 N SER C 647 157.170 174.237 151.612 1.00 79.06 N
ATOM 4303 CA SER C 647 157.691 175.220 150.674 1.00 79.06 C
ATOM 4304 C SER C 647 158.980 175.830 151.204 1.00 79.06 C
ATOM 4305 O SER C 647 159.134 177.056 151.222 1.00 79.06 O
ATOM 4306 CB SER C 647 156.656 176.315 150.412 1.00 79.06 C
ATOM 4307 OG SER C 647 157.280 177.505 149.959 1.00 79.06 O
ATOM 4308 N MET C 648 159.910 174.977 151.638 1.00 79.37 N
ATOM 4309 CA MET C 648 161.264 175.418 151.963 1.00 79.37 C
ATOM 4310 C MET C 648 162.178 174.193 151.918 1.00 79.37 C
ATOM 4311 O MET C 648 162.234 173.424 152.881 1.00 79.37 O
ATOM 4312 CB MET C 648 161.328 176.108 153.315 1.00 79.37 C
ATOM 4313 CG MET C 648 160.913 177.565 153.297 1.00 79.37 C
ATOM 4314 SD MET C 648 161.213 178.362 154.883 1.00 79.37 S
ATOM 4315 CE MET C 648 163.000 178.300 154.952 1.00 79.37 C
ATOM 4316 N ILE C 649 162.878 174.026 150.801 1.00 86.72 N
ATOM 4317 CA ILE C 649 164.007 173.112 150.727 1.00 86.72 C
ATOM 4318 C ILE C 649 165.321 173.858 150.582 1.00 86.72 C
ATOM 4319 O ILE C 649 166.386 173.242 150.747 1.00 86.72 O
ATOM 4320 CB ILE C 649 163.842 172.097 149.578 1.00 86.72 C
ATOM 4321 CG1 ILE C 649 162.425 171.525 149.557 1.00 86.72 C
ATOM 4322 CG2 ILE C 649 164.859 170.978 149.709 1.00 86.72 C
ATOM 4323 CD1 ILE C 649 162.177 170.569 148.413 1.00 86.72 C
ATOM 4324 N ALA C 650 165.285 175.153 150.293 1.00 90.45 N
ATOM 4325 CA ALA C 650 166.488 175.931 150.044 1.00 90.45 C
ATOM 4326 C ALA C 650 167.227 176.160 151.359 1.00 90.45 C
ATOM 4327 O ALA C 650 166.875 175.622 152.412 1.00 90.45 O
ATOM 4328 CB ALA C 650 166.134 177.241 149.348 1.00 90.45 C
ATOM 4329 N LEU C 651 168.275 176.973 151.298 1.00 89.48 N
ATOM 4330 CA LEU C 651 169.127 177.186 152.456 1.00 89.48 C
ATOM 4331 C LEU C 651 168.350 177.816 153.606 1.00 89.48 C
ATOM 4332 O LEU C 651 167.333 178.489 153.417 1.00 89.48 O
ATOM 4333 CB LEU C 651 170.322 178.064 152.079 1.00 89.48 C

ATOM 4334 CG LEU C 651 170.057 179.541 151.779 1.00 89.48 C
ATOM 4335 CD1 LEU C 651 171.369 180.301 151.680 1.00 89.48 C
ATOM 4336 CD2 LEU C 651 169.248 179.704 150.503 1.00 89.48 C
ATOM 4337 N ASP C 652 168.858 177.581 154.813 1.00 81.96 N
ATOM 4338 CA ASP C 652 168.325 178.095 156.070 1.00 81.96 C
ATOM 4339 C ASP C 652 169.467 178.810 156.785 1.00 81.96 C
ATOM 4340 O ASP C 652 169.839 178.485 157.912 1.00 81.96 O
ATOM 4341 CB ASP C 652 167.718 176.993 156.935 1.00 81.96 C
ATOM 4342 CG ASP C 652 168.599 175.771 157.019 1.00 81.96 C
ATOM 4343 OD1 ASP C 652 169.808 175.889 156.736 1.00 81.96 O
ATOM 4344 OD2 ASP C 652 168.081 174.690 157.367 1.00 81.96 O
ATOM 4345 N ILE C 653 170.014 179.822 156.110 1.00 84.10 N
ATOM 4346 CA ILE C 653 171.447 180.079 156.018 1.00 84.10 C
ATOM 4347 C ILE C 653 172.192 179.622 157.263 1.00 84.10 C
ATOM 4348 O ILE C 653 173.225 178.953 157.157 1.00 84.10 O
ATOM 4349 CB ILE C 653 171.706 181.576 155.763 1.00 84.10 C
ATOM 4350 CG1 ILE C 653 170.834 182.434 156.684 1.00 84.10 C
ATOM 4351 CG2 ILE C 653 171.436 181.926 154.311 1.00 84.10 C
ATOM 4352 CD1 ILE C 653 171.343 183.848 156.868 1.00 84.10 C
ATOM 4353 N ASP C 654 171.693 179.959 158.437 1.00 75.25 N
ATOM 4354 CA ASP C 654 172.325 179.341 159.590 1.00 75.25 C
ATOM 4355 C ASP C 654 171.523 179.558 160.863 1.00 75.25 C
ATOM 4356 O ASP C 654 171.107 180.685 161.155 1.00 75.25 O
ATOM 4357 CB ASP C 654 173.748 179.874 159.765 1.00 75.25 C
ATOM 4358 CG ASP C 654 173.833 181.375 159.589 1.00 75.25 C
ATOM 4359 OD1 ASP C 654 173.064 181.920 158.771 1.00 75.25 O
ATOM 4360 OD2 ASP C 654 174.671 182.008 160.263 1.00 75.25 O
ATOM 4361 N PRO C 655 171.287 178.509 161.639 1.00 63.65 N
ATOM 4362 CA PRO C 655 170.844 178.699 163.020 1.00 63.65 C
ATOM 4363 C PRO C 655 171.940 179.379 163.826 1.00 63.65 C
ATOM 4364 O PRO C 655 173.084 179.505 163.390 1.00 63.65 O
ATOM 4365 CB PRO C 655 170.573 177.273 163.503 1.00 63.65 C
ATOM 4366 CG PRO C 655 170.326 176.495 162.240 1.00 63.65 C
ATOM 4367 CD PRO C 655 171.250 177.095 161.236 1.00 63.65 C

ATOM 4368 N LEU C 656 171.580 179.822 165.027 1.00 51.88 N
ATOM 4369 CA LEU C 656 172.436 180.724 165.783 1.00 51.88 C
ATOM 4370 C LEU C 656 173.171 180.062 166.945 1.00 51.88 C
ATOM 4371 O LEU C 656 173.842 180.762 167.708 1.00 51.88 O
ATOM 4372 CB LEU C 656 171.627 181.913 166.295 1.00 51.88 C
ATOM 4373 CG LEU C 656 171.815 183.187 165.482 1.00 51.88 C
ATOM 4374 CD1 LEU C 656 171.171 184.349 166.195 1.00 51.88 C
ATOM 4375 CD2 LEU C 656 173.286 183.441 165.261 1.00 51.88 C
ATOM 4376 N GLU C 657 173.081 178.743 167.105 1.00 50.59 N
ATOM 4377 CA GLU C 657 173.855 178.057 168.138 1.00 50.59 C
ATOM 4378 C GLU C 657 173.516 178.608 169.528 1.00 50.59 C
ATOM 4379 O GLU C 657 174.338 179.216 170.213 1.00 50.59 O
ATOM 4380 CB GLU C 657 175.352 178.182 167.840 1.00 50.59 C
ATOM 4381 CG GLU C 657 176.268 177.568 168.873 1.00 50.59 C
ATOM 4382 CD GLU C 657 177.658 177.314 168.327 1.00 50.59 C
ATOM 4383 OE1 GLU C 657 177.769 176.844 167.177 1.00 50.59 O
ATOM 4384 OE2 GLU C 657 178.644 177.587 169.041 1.00 50.59 O
ATOM 4385 N ASN C 658 172.262 178.393 169.914 1.00 47.73 N
ATOM 4386 CA ASN C 658 171.750 178.910 171.174 1.00 47.73 C
ATOM 4387 C ASN C 658 172.384 178.194 172.363 1.00 47.73 C
ATOM 4388 O ASN C 658 172.959 177.111 172.238 1.00 47.73 O
ATOM 4389 CB ASN C 658 170.233 178.757 171.235 1.00 47.73 C
ATOM 4390 CG ASN C 658 169.542 179.374 170.048 1.00 47.73 C
ATOM 4391 OD1 ASN C 658 169.932 180.438 169.576 1.00 47.73 O
ATOM 4392 ND2 ASN C 658 168.509 178.711 169.555 1.00 47.73 N
ATOM 4393 N THR C 659 172.268 178.818 173.534 1.00 49.56 N
ATOM 4394 CA THR C 659 172.796 178.283 174.781 1.00 49.56 C
ATOM 4395 C THR C 659 171.707 178.307 175.845 1.00 49.56 C
ATOM 4396 O THR C 659 170.565 178.694 175.590 1.00 49.56 O
ATOM 4397 CB THR C 659 174.023 179.070 175.255 1.00 49.56 C
ATOM 4398 OG1 THR C 659 174.531 178.485 176.458 1.00 49.56 O
ATOM 4399 CG2 THR C 659 173.649 180.508 175.526 1.00 49.56 C
ATOM 4400 N ASP C 660 172.074 177.887 177.055 1.00 54.68 N
ATOM 4401 CA ASP C 660 171.131 177.770 178.161 1.00 54.68 C

ATOM 4402 C ASP C 660 171.881 177.685 179.485 1.00 54.68 C
ATOM 4403 O ASP C 660 172.721 176.801 179.665 1.00 54.68 O
ATOM 4404 CB ASP C 660 170.243 176.542 177.973 1.00 54.68 C
ATOM 4405 CG ASP C 660 169.034 176.565 178.867 1.00 54.68 C
ATOM 4406 OD1 ASP C 660 169.133 177.128 179.974 1.00 54.68 O
ATOM 4407 OD2 ASP C 660 167.983 176.032 178.460 1.00 54.68 O
ATOM 4408 N PHE C 661 171.587 178.586 180.424 1.00 54.71 N
ATOM 4409 CA PHE C 661 172.411 178.715 181.616 1.00 54.71 C
ATOM 4410 C PHE C 661 171.795 178.136 182.879 1.00 54.71 C
ATOM 4411 O PHE C 661 172.520 177.934 183.855 1.00 54.71 O
ATOM 4412 CB PHE C 661 172.756 180.189 181.866 1.00 54.71 C
ATOM 4413 CG PHE C 661 173.828 180.718 180.961 1.00 54.71 C
ATOM 4414 CD1 PHE C 661 175.139 180.314 181.112 1.00 54.71 C
ATOM 4415 CD2 PHE C 661 173.524 181.615 179.957 1.00 54.71 C
ATOM 4416 CE1 PHE C 661 176.123 180.796 180.280 1.00 54.71 C
ATOM 4417 CE2 PHE C 661 174.506 182.098 179.125 1.00 54.71 C
ATOM 4418 CZ PHE C 661 175.806 181.688 179.287 1.00 54.71 C
ATOM 4419 N ARG C 662 170.491 177.863 182.896 1.00 59.66 N
ATOM 4420 CA ARG C 662 169.880 177.285 184.089 1.00 59.66 C
ATOM 4421 C ARG C 662 170.104 175.780 184.148 1.00 59.66 C
ATOM 4422 O ARG C 662 170.654 175.257 185.125 1.00 59.66 O
ATOM 4423 CB ARG C 662 168.386 177.608 184.129 1.00 59.66 C
ATOM 4424 CG ARG C 662 168.065 179.091 184.156 1.00 59.66 C
ATOM 4425 CD ARG C 662 168.175 179.654 185.558 1.00 59.66 C
ATOM 4426 NE ARG C 662 167.073 180.561 185.870 1.00 59.66 N
ATOM 4427 CZ ARG C 662 167.021 181.831 185.486 1.00 59.66 C
ATOM 4428 NH1 ARG C 662 168.010 182.347 184.772 1.00 59.66 N
ATOM 4429 NH2 ARG C 662 165.982 182.585 185.815 1.00 59.66 N
ATOM 4430 N VAL C 663 169.681 175.062 183.106 1.00 59.08 N
ATOM 4431 CA VAL C 663 169.842 173.612 183.103 1.00 59.08 C
ATOM 4432 C VAL C 663 171.314 173.236 183.108 1.00 59.08 C
ATOM 4433 O VAL C 663 171.697 172.206 183.674 1.00 59.08 O
ATOM 4434 CB VAL C 663 169.109 172.989 181.901 1.00 59.08 C
ATOM 4435 CG1 VAL C 663 167.638 173.350 181.937 1.00 59.08 C

ATOM 4436 CG2 VAL C 663 169.748 173.431 180.606 1.00 59.08 C
ATOM 4437 N LEU C 664 172.165 174.047 182.480 1.00 57.60 N
ATOM 4438 CA LEU C 664 173.594 173.764 182.519 1.00 57.60 C
ATOM 4439 C LEU C 664 174.120 173.807 183.947 1.00 57.60 C
ATOM 4440 O LEU C 664 174.913 172.952 184.351 1.00 57.60 O
ATOM 4441 CB LEU C 664 174.351 174.751 181.636 1.00 57.60 C
ATOM 4442 CG LEU C 664 174.402 174.403 180.152 1.00 57.60 C
ATOM 4443 CD1 LEU C 664 175.410 175.280 179.440 1.00 57.60 C
ATOM 4444 CD2 LEU C 664 174.746 172.944 179.977 1.00 57.60 C
ATOM 4445 N GLU C 665 173.684 174.794 184.731 1.00 63.50 N
ATOM 4446 CA GLU C 665 174.088 174.846 186.131 1.00 63.50 C
ATOM 4447 C GLU C 665 173.508 173.677 186.910 1.00 63.50 C
ATOM 4448 O GLU C 665 174.181 173.101 187.772 1.00 63.50 O
ATOM 4449 CB GLU C 665 173.655 176.169 186.756 1.00 63.50 C
ATOM 4450 CG GLU C 665 174.322 177.383 186.149 1.00 63.50 C
ATOM 4451 CD GLU C 665 173.833 178.677 186.760 1.00 63.50 C
ATOM 4452 OE1 GLU C 665 172.679 178.714 187.234 1.00 63.50 O
ATOM 4453 OE2 GLU C 665 174.604 179.658 186.769 1.00 63.50 O
ATOM 4454 N LEU C 666 172.258 173.311 186.623 1.00 66.79 N
ATOM 4455 CA LEU C 666 171.658 172.162 187.293 1.00 66.79 C
ATOM 4456 C LEU C 666 172.447 170.886 187.035 1.00 66.79 C
ATOM 4457 O LEU C 666 172.606 170.063 187.940 1.00 66.79 O
ATOM 4458 CB LEU C 666 170.212 171.992 186.836 1.00 66.79 C
ATOM 4459 CG LEU C 666 169.365 170.938 187.545 1.00 66.79 C
ATOM 4460 CD1 LEU C 666 167.902 171.327 187.486 1.00 66.79 C
ATOM 4461 CD2 LEU C 666 169.575 169.577 186.917 1.00 66.79 C
ATOM 4462 N TYR C 667 172.947 170.707 185.815 1.00 64.73 N
ATOM 4463 CA TYR C 667 173.725 169.527 185.465 1.00 64.73 C
ATOM 4464 C TYR C 667 175.187 169.632 185.869 1.00 64.73 C
ATOM 4465 O TYR C 667 175.888 168.616 185.866 1.00 64.73 O
ATOM 4466 CB TYR C 667 173.655 169.270 183.958 1.00 64.73 C
ATOM 4467 CG TYR C 667 172.343 168.707 183.472 1.00 64.73 C
ATOM 4468 CD1 TYR C 667 171.783 167.588 184.062 1.00 64.73 C
ATOM 4469 CD2 TYR C 667 171.671 169.289 182.411 1.00 64.73 C

ATOM 4470 CE1 TYR C 667 170.589 167.071 183.612 1.00 64.73 C
ATOM 4471 CE2 TYR C 667 170.476 168.781 181.957 1.00 64.73 C
ATOM 4472 CZ TYR C 667 169.940 167.671 182.560 1.00 64.73 C
ATOM 4473 OH TYR C 667 168.750 167.159 182.108 1.00 64.73 O
ATOM 4474 N SER C 668 175.668 170.833 186.195 1.00 71.63 N
ATOM 4475 CA SER C 668 177.069 170.995 186.575 1.00 71.63 C
ATOM 4476 C SER C 668 177.401 170.156 187.801 1.00 71.63 C
ATOM 4477 O SER C 668 178.235 169.247 187.744 1.00 71.63 O
ATOM 4478 CB SER C 668 177.373 172.470 186.835 1.00 71.63 C
ATOM 4479 OG SER C 668 177.113 172.805 188.186 1.00 71.63 O
ATOM 4480 N GLN C 669 176.756 170.457 188.929 1.00 78.96 N
ATOM 4481 CA GLN C 669 176.935 169.687 190.158 1.00 78.96 C
ATOM 4482 C GLN C 669 176.147 168.387 190.021 1.00 78.96 C
ATOM 4483 O GLN C 669 175.062 168.210 190.578 1.00 78.96 O
ATOM 4484 CB GLN C 669 176.493 170.496 191.371 1.00 78.96 C
ATOM 4485 CG GLN C 669 175.189 171.259 191.187 1.00 78.96 C
ATOM 4486 CD GLN C 669 173.991 170.524 191.751 1.00 78.96 C
ATOM 4487 OE1 GLN C 669 174.134 169.600 192.549 1.00 78.96 O
ATOM 4488 NE2 GLN C 669 172.798 170.938 191.345 1.00 78.96 N
ATOM 4489 N LYS C 670 176.714 167.456 189.257 1.00 81.07 N
ATOM 4490 CA LYS C 670 176.018 166.222 188.899 1.00 81.07 C
ATOM 4491 C LYS C 670 176.779 165.021 189.448 1.00 81.07 C
ATOM 4492 O LYS C 670 177.585 164.395 188.758 1.00 81.07 O
ATOM 4493 CB LYS C 670 175.828 166.119 187.388 1.00 81.07 C
ATOM 4494 CG LYS C 670 174.850 165.034 186.971 1.00 81.07 C
ATOM 4495 CD LYS C 670 173.618 165.005 187.868 1.00 81.07 C
ATOM 4496 CE LYS C 670 173.087 166.404 188.154 1.00 81.07 C
ATOM 4497 NZ LYS C 670 172.090 166.414 189.261 1.00 81.07 N
ATOM 4498 N GLU C 671 176.510 164.709 190.710 1.00 92.28 N
ATOM 4499 CA GLU C 671 176.718 163.377 191.254 1.00 92.28 C
ATOM 4500 C GLU C 671 175.538 162.904 192.086 1.00 92.28 C
ATOM 4501 O GLU C 671 175.358 161.688 192.234 1.00 92.28 O
ATOM 4502 CB GLU C 671 178.003 163.321 192.094 1.00 92.28 C
ATOM 4503 CG GLU C 671 179.251 163.032 191.265 1.00 92.28 C

ATOM 4504 CD GLU C 671 180.538 163.209 192.046 1.00 92.28 C
ATOM 4505 OE1 GLU C 671 180.893 162.298 192.822 1.00 92.28 O
ATOM 4506 OE2 GLU C 671 181.202 164.253 191.874 1.00 92.28 O
ATOM 4507 N LEU C 672 174.733 163.816 192.625 1.00 90.54 N
ATOM 4508 CA LEU C 672 173.381 163.517 193.085 1.00 90.54 C
ATOM 4509 C LEU C 672 172.474 163.649 191.867 1.00 90.54 C
ATOM 4510 O LEU C 672 172.160 164.756 191.427 1.00 90.54 O
ATOM 4511 CB LEU C 672 172.968 164.458 194.213 1.00 90.54 C
ATOM 4512 CG LEU C 672 172.686 165.922 193.859 1.00 90.54 C
ATOM 4513 CD1 LEU C 672 171.931 166.618 194.979 1.00 90.54 C
ATOM 4514 CD2 LEU C 672 173.978 166.659 193.545 1.00 90.54 C
ATOM 4515 N ARG C 673 172.057 162.515 191.309 1.00 82.28 N
ATOM 4516 CA ARG C 673 171.401 162.533 190.009 1.00 82.28 C
ATOM 4517 C ARG C 673 169.987 163.092 190.094 1.00 82.28 C
ATOM 4518 O ARG C 673 169.007 162.361 189.921 1.00 82.28 O
ATOM 4519 CB ARG C 673 171.386 161.132 189.400 1.00 82.28 C
ATOM 4520 CG ARG C 673 170.658 160.097 190.228 1.00 82.28 C
ATOM 4521 CD ARG C 673 171.055 158.707 189.788 1.00 82.28 C
ATOM 4522 NE ARG C 673 172.504 158.557 189.748 1.00 82.28 N
ATOM 4523 CZ ARG C 673 173.128 157.499 189.247 1.00 82.28 C
ATOM 4524 NH1 ARG C 673 172.426 156.498 188.738 1.00 82.28 N
ATOM 4525 NH2 ARG C 673 174.451 157.444 189.251 1.00 82.28 N
ATOM 4526 N SER C 674 169.879 164.396 190.356 1.00 81.50 N
ATOM 4527 CA SER C 674 168.631 165.133 190.207 1.00 81.50 C
ATOM 4528 C SER C 674 168.449 165.649 188.790 1.00 81.50 C
ATOM 4529 O SER C 674 167.736 166.638 188.573 1.00 81.50 O
ATOM 4530 CB SER C 674 168.574 166.291 191.204 1.00 81.50 C
ATOM 4531 OG SER C 674 169.544 167.277 190.896 1.00 81.50 O
ATOM 4532 N SER C 675 169.089 164.998 187.820 1.00 71.50 N
ATOM 4533 CA SER C 675 169.208 165.560 186.481 1.00 71.50 C
ATOM 4534 C SER C 675 167.848 165.737 185.819 1.00 71.50 C
ATOM 4535 O SER C 675 167.510 166.839 185.371 1.00 71.50 O
ATOM 4536 CB SER C 675 170.112 164.671 185.628 1.00 71.50 C
ATOM 4537 OG SER C 675 171.405 164.561 186.194 1.00 71.50 O

ATOM 4538 N ASN C 676 167.060 164.665 185.740 1.00 69.14 N
ATOM 4539 CA ASN C 676 165.834 164.669 184.949 1.00 69.14 C
ATOM 4540 C ASN C 676 165.086 165.984 185.105 1.00 69.14 C
ATOM 4541 O ASN C 676 164.779 166.412 186.221 1.00 69.14 O
ATOM 4542 CB ASN C 676 164.932 163.504 185.364 1.00 69.14 C
ATOM 4543 CG ASN C 676 163.821 163.244 184.362 1.00 69.14 C
ATOM 4544 OD1 ASN C 676 164.074 162.812 183.238 1.00 69.14 O
ATOM 4545 ND2 ASN C 676 162.583 163.517 184.763 1.00 69.14 N
ATOM 4546 N VAL C 677 164.994 166.705 184.003 1.00 66.21 N
ATOM 4547 CA VAL C 677 164.363 167.987 184.022 1.00 66.21 C
ATOM 4548 C VAL C 677 163.004 167.950 183.380 1.00 66.21 C
ATOM 4549 O VAL C 677 162.021 168.098 184.078 1.00 66.21 O
ATOM 4550 CB VAL C 677 165.227 169.041 183.330 1.00 66.21 C
ATOM 4551 CG1 VAL C 677 166.098 169.748 184.346 1.00 66.21 C
ATOM 4552 CG2 VAL C 677 166.082 168.397 182.263 1.00 66.21 C
ATOM 4553 N PHE C 678 162.917 167.683 182.084 1.00 59.19 N
ATOM 4554 CA PHE C 678 161.604 167.758 181.494 1.00 59.19 C
ATOM 4555 C PHE C 678 161.073 166.832 180.407 1.00 59.19 C
ATOM 4556 O PHE C 678 159.854 166.700 180.337 1.00 59.19 O
ATOM 4557 CB PHE C 678 161.428 169.170 180.997 1.00 59.19 C
ATOM 4558 CG PHE C 678 160.644 170.024 181.910 1.00 59.19 C
ATOM 4559 CD1 PHE C 678 159.570 169.522 182.564 1.00 59.19 C
ATOM 4560 CD2 PHE C 678 161.002 171.317 182.121 1.00 59.19 C
ATOM 4561 CE1 PHE C 678 158.839 170.305 183.416 1.00 59.19 C
ATOM 4562 CE2 PHE C 678 160.284 172.112 182.966 1.00 59.19 C
ATOM 4563 CZ PHE C 678 159.195 171.606 183.622 1.00 59.19 C
ATOM 4564 N ASP C 679 161.935 166.189 179.614 1.00 58.15 N
ATOM 4565 CA ASP C 679 161.532 165.373 178.451 1.00 58.15 C
ATOM 4566 C ASP C 679 160.609 166.236 177.651 1.00 58.15 C
ATOM 4567 O ASP C 679 159.457 165.887 177.448 1.00 58.15 O
ATOM 4568 CB ASP C 679 160.822 164.077 178.786 1.00 58.15 C
ATOM 4569 CG ASP C 679 161.392 163.432 179.935 1.00 58.15 C
ATOM 4570 OD1 ASP C 679 162.585 163.645 180.157 1.00 58.15 O
ATOM 4571 OD2 ASP C 679 160.658 162.724 180.625 1.00 58.15 O

ATOM 4572 N LEU C 680 161.143 167.350 177.154 1.00 57.21 N
ATOM 4573 CA LEU C 680 160.361 168.369 176.450 1.00 57.21 C
ATOM 4574 C LEU C 680 159.285 167.927 175.503 1.00 57.21 C
ATOM 4575 O LEU C 680 158.205 168.496 175.552 1.00 57.21 O
ATOM 4576 CB LEU C 680 161.189 169.539 175.961 1.00 57.21 C
ATOM 4577 CG LEU C 680 161.033 170.461 177.159 1.00 57.21 C
ATOM 4578 CD1 LEU C 680 162.277 171.224 177.537 1.00 57.21 C
ATOM 4579 CD2 LEU C 680 159.811 171.341 177.095 1.00 57.21 C
ATOM 4580 N GLU C 681 159.554 166.924 174.677 1.00 59.13 N
ATOM 4581 CA GLU C 681 158.509 166.370 173.842 1.00 59.13 C
ATOM 4582 C GLU C 681 158.793 164.942 173.435 1.00 59.13 C
ATOM 4583 O GLU C 681 158.011 164.049 173.742 1.00 59.13 O
ATOM 4584 CB GLU C 681 158.170 167.229 172.612 1.00 59.13 C
ATOM 4585 CG GLU C 681 156.665 167.319 172.331 1.00 59.13 C
ATOM 4586 CD GLU C 681 155.878 168.128 173.365 1.00 59.13 C
ATOM 4587 OE1 GLU C 681 156.124 169.342 173.510 1.00 59.13 O
ATOM 4588 OE2 GLU C 681 154.993 167.557 174.035 1.00 59.13 O
ATOM 4589 N GLU C 682 159.920 164.744 172.773 1.00 56.52 N
ATOM 4590 CA GLU C 682 160.292 163.460 172.223 1.00 56.52 C
ATOM 4591 C GLU C 682 160.072 162.246 173.074 1.00 56.52 C
ATOM 4592 O GLU C 682 160.432 162.242 174.218 1.00 56.52 O
ATOM 4593 CB GLU C 682 161.740 163.493 171.778 1.00 56.52 C
ATOM 4594 CG GLU C 682 162.679 164.161 172.747 1.00 56.52 C
ATOM 4595 CD GLU C 682 164.041 164.393 172.133 1.00 56.52 C
ATOM 4596 OE1 GLU C 682 164.353 165.553 171.793 1.00 56.52 O
ATOM 4597 OE2 GLU C 682 164.797 163.418 171.978 1.00 56.52 O
ATOM 4598 N ILE C 683 159.417 161.237 172.519 1.00 55.18 N
ATOM 4599 CA ILE C 683 159.253 160.008 173.279 1.00 55.18 C
ATOM 4600 C ILE C 683 160.579 159.262 173.273 1.00 55.18 C
ATOM 4601 O ILE C 683 160.792 158.340 174.056 1.00 55.18 O
ATOM 4602 CB ILE C 683 158.145 159.111 172.696 1.00 55.18 C
ATOM 4603 CG1 ILE C 683 157.344 159.862 171.635 1.00 55.18 C
ATOM 4604 CG2 ILE C 683 157.215 158.632 173.798 1.00 55.18 C
ATOM 4605 CD1 ILE C 683 155.936 159.341 171.460 1.00 55.18 C

ATOM 4606 N MET C 684 161.467 159.668 172.373 1.00 57.49 N
ATOM 4607 CA MET C 684 162.794 159.068 172.269 1.00 57.49 C
ATOM 4608 C MET C 684 163.560 159.156 173.581 1.00 57.49 C
ATOM 4609 O MET C 684 164.036 158.144 174.104 1.00 57.49 O
ATOM 4610 CB MET C 684 163.587 159.736 171.147 1.00 57.49 C
ATOM 4611 CG MET C 684 164.982 159.173 170.962 1.00 57.49 C
ATOM 4612 SD MET C 684 164.967 157.434 170.501 1.00 57.49 S
ATOM 4613 CE MET C 684 166.650 157.223 169.931 1.00 57.49 C
ATOM 4614 N ARG C 685 163.692 160.363 174.130 1.00 57.53 N
ATOM 4615 CA ARG C 685 164.386 160.574 175.391 1.00 57.53 C
ATOM 4616 C ARG C 685 163.479 160.364 176.590 1.00 57.53 C
ATOM 4617 O ARG C 685 163.761 160.891 177.670 1.00 57.53 O
ATOM 4618 CB ARG C 685 164.995 161.975 175.437 1.00 57.53 C
ATOM 4619 CG ARG C 685 166.269 162.070 176.266 1.00 57.53 C
ATOM 4620 CD ARG C 685 167.402 161.225 175.679 1.00 57.53 C
ATOM 4621 NE ARG C 685 167.625 161.488 174.259 1.00 57.53 N
ATOM 4622 CZ ARG C 685 168.266 160.662 173.436 1.00 57.53 C
ATOM 4623 NH1 ARG C 685 168.752 159.515 173.887 1.00 57.53 N
ATOM 4624 NH2 ARG C 685 168.421 160.982 172.160 1.00 57.53 N
ATOM 4625 N GLU C 686 162.394 159.614 176.419 1.00 56.76 N
ATOM 4626 CA GLU C 686 161.476 159.302 177.500 1.00 56.76 C
ATOM 4627 C GLU C 686 161.362 157.809 177.759 1.00 56.76 C
ATOM 4628 O GLU C 686 160.711 157.414 178.730 1.00 56.76 O
ATOM 4629 CB GLU C 686 160.091 159.892 177.205 1.00 56.76 C
ATOM 4630 CG GLU C 686 159.033 159.525 178.208 1.00 56.76 C
ATOM 4631 CD GLU C 686 158.233 158.330 177.766 1.00 56.76 C
ATOM 4632 OE1 GLU C 686 157.982 158.210 176.552 1.00 56.76 O
ATOM 4633 OE2 GLU C 686 157.875 157.499 178.622 1.00 56.76 O
ATOM 4634 N PHE C 687 161.973 156.966 176.927 1.00 56.69 N
ATOM 4635 CA PHE C 687 162.154 155.563 177.273 1.00 56.69 C
ATOM 4636 C PHE C 687 163.625 155.228 177.468 1.00 56.69 C
ATOM 4637 O PHE C 687 163.980 154.047 177.540 1.00 56.69 O
ATOM 4638 CB PHE C 687 161.522 154.640 176.228 1.00 56.69 C
ATOM 4639 CG PHE C 687 162.222 154.628 174.904 1.00 56.69 C

ATOM 4640 CD1 PHE C 687 161.914 155.563 173.936 1.00 56.69 C
ATOM 4641 CD2 PHE C 687 163.150 153.647 174.609 1.00 56.69 C
ATOM 4642 CE1 PHE C 687 162.545 155.542 172.707 1.00 56.69 C
ATOM 4643 CE2 PHE C 687 163.781 153.619 173.384 1.00 56.69 C
ATOM 4644 CZ PHE C 687 163.479 154.566 172.432 1.00 56.69 C
ATOM 4645 N ASN C 688 164.485 156.241 177.539 1.00 54.26 N
ATOM 4646 CA ASN C 688 165.813 156.096 178.110 1.00 54.26 C
ATOM 4647 C ASN C 688 165.808 156.267 179.620 1.00 54.26 C
ATOM 4648 O ASN C 688 166.783 155.893 180.279 1.00 54.26 O
ATOM 4649 CB ASN C 688 166.771 157.119 177.496 1.00 54.26 C
ATOM 4650 CG ASN C 688 167.582 156.546 176.359 1.00 54.26 C
ATOM 4651 OD1 ASN C 688 168.028 155.402 176.417 1.00 54.26 O
ATOM 4652 ND2 ASN C 688 167.783 157.339 175.316 1.00 54.26 N
ATOM 4653 N SER C 689 164.731 156.823 180.176 1.00 54.91 N
ATOM 4654 CA SER C 689 164.614 157.082 181.602 1.00 54.91 C
ATOM 4655 C SER C 689 163.628 156.164 182.310 1.00 54.91 C
ATOM 4656 O SER C 689 163.588 156.165 183.543 1.00 54.91 O
ATOM 4657 CB SER C 689 164.187 158.533 181.841 1.00 54.91 C
ATOM 4658 OG SER C 689 165.200 159.439 181.449 1.00 54.91 O
ATOM 4659 N TYR C 690 162.834 155.390 181.572 1.00 55.06 N
ATOM 4660 CA TYR C 690 161.755 154.632 182.198 1.00 55.06 C
ATOM 4661 C TYR C 690 162.291 153.598 183.182 1.00 55.06 C
ATOM 4662 O TYR C 690 161.741 153.429 184.280 1.00 55.06 O
ATOM 4663 CB TYR C 690 160.902 153.964 181.124 1.00 55.06 C
ATOM 4664 CG TYR C 690 159.595 153.422 181.639 1.00 55.06 C
ATOM 4665 CD1 TYR C 690 158.596 154.270 182.078 1.00 55.06 C
ATOM 4666 CD2 TYR C 690 159.360 152.060 181.683 1.00 55.06 C
ATOM 4667 CE1 TYR C 690 157.403 153.776 182.549 1.00 55.06 C
ATOM 4668 CE2 TYR C 690 158.171 151.558 182.151 1.00 55.06 C
ATOM 4669 CZ TYR C 690 157.197 152.420 182.582 1.00 55.06 C
ATOM 4670 OH TYR C 690 156.009 151.919 183.050 1.00 55.06 O
ATOM 4671 N LYS C 691 163.358 152.892 182.809 1.00 55.14 N
ATOM 4672 CA LYS C 691 163.921 151.864 183.676 1.00 55.14 C
ATOM 4673 C LYS C 691 164.545 152.431 184.938 1.00 55.14 C

ATOM 4674 O LYS C 691 165.037 151.656 185.761 1.00 55.14 O
ATOM 4675 CB LYS C 691 164.961 151.049 182.917 1.00 55.14 C
ATOM 4676 CG LYS C 691 164.390 150.211 181.803 1.00 55.14 C
ATOM 4677 CD LYS C 691 165.482 149.769 180.854 1.00 55.14 C
ATOM 4678 CE LYS C 691 166.290 150.950 180.355 1.00 55.14 C
ATOM 4679 NZ LYS C 691 165.424 151.970 179.711 1.00 55.14 N
ATOM 4680 N GLN C 692 164.544 153.750 185.107 1.00 59.71 N
ATOM 4681 CA GLN C 692 164.993 154.368 186.346 1.00 59.71 C
ATOM 4682 C GLN C 692 163.830 154.641 187.292 1.00 59.71 C
ATOM 4683 O GLN C 692 163.951 154.427 188.502 1.00 59.71 O
ATOM 4684 CB GLN C 692 165.741 155.662 186.039 1.00 59.71 C
ATOM 4685 CG GLN C 692 166.418 156.275 187.237 1.00 59.71 C
ATOM 4686 CD GLN C 692 166.458 157.784 187.163 1.00 59.71 C
ATOM 4687 OE1 GLN C 692 165.950 158.382 186.214 1.00 59.71 O
ATOM 4688 NE2 GLN C 692 167.060 158.412 188.167 1.00 59.71 N
ATOM 4689 N ARG C 693 162.698 155.106 186.763 1.00 59.66 N
ATOM 4690 CA ARG C 693 161.496 155.213 187.581 1.00 59.66 C
ATOM 4691 C ARG C 693 161.005 153.838 188.006 1.00 59.66 C
ATOM 4692 O ARG C 693 160.473 153.671 189.111 1.00 59.66 O
ATOM 4693 CB ARG C 693 160.399 155.949 186.818 1.00 59.66 C
ATOM 4694 CG ARG C 693 160.860 157.208 186.135 1.00 59.66 C
ATOM 4695 CD ARG C 693 161.092 158.309 187.137 1.00 59.66 C
ATOM 4696 NE ARG C 693 161.944 159.355 186.585 1.00 59.66 N
ATOM 4697 CZ ARG C 693 162.481 160.332 187.303 1.00 59.66 C
ATOM 4698 NH1 ARG C 693 162.254 160.402 188.607 1.00 59.66 N
ATOM 4699 NH2 ARG C 693 163.245 161.240 186.716 1.00 59.66 N
ATOM 4700 N VAL C 694 161.166 152.839 187.139 1.00 59.74 N
ATOM 4701 CA VAL C 694 160.711 151.488 187.448 1.00 59.74 C
ATOM 4702 C VAL C 694 161.353 151.005 188.742 1.00 59.74 C
ATOM 4703 O VAL C 694 160.826 150.109 189.408 1.00 59.74 O
ATOM 4704 CB VAL C 694 161.010 150.517 186.291 1.00 59.74 C
ATOM 4705 CG1 VAL C 694 160.599 149.111 186.663 1.00 59.74 C
ATOM 4706 CG2 VAL C 694 160.280 150.950 185.040 1.00 59.74 C
ATOM 4707 N LYS C 695 162.489 151.595 189.114 1.00 63.20 N

ATOM 4708 CA LYS C 695 163.171 151.246 190.354 1.00 63.20 C
ATOM 4709 C LYS C 695 163.006 152.283 191.450 1.00 63.20 C
ATOM 4710 O LYS C 695 162.973 151.916 192.626 1.00 63.20 O
ATOM 4711 CB LYS C 695 164.667 151.031 190.106 1.00 63.20 C
ATOM 4712 CG LYS C 695 165.393 150.415 191.286 1.00 63.20 C
ATOM 4713 CD LYS C 695 165.981 151.476 192.201 1.00 63.20 C
ATOM 4714 CE LYS C 695 167.166 152.173 191.556 1.00 63.20 C
ATOM 4715 NZ LYS C 695 167.811 153.141 192.484 1.00 63.20 N
ATOM 4716 N TYR C 696 162.943 153.567 191.098 1.00 67.56 N
ATOM 4717 CA TYR C 696 162.530 154.575 192.067 1.00 67.56 C
ATOM 4718 C TYR C 696 161.277 154.124 192.801 1.00 67.56 C
ATOM 4719 O TYR C 696 161.217 154.151 194.034 1.00 67.56 O
ATOM 4720 CB TYR C 696 162.275 155.910 191.367 1.00 67.56 C
ATOM 4721 CG TYR C 696 163.479 156.804 191.255 1.00 67.56 C
ATOM 4722 CD1 TYR C 696 164.757 156.299 191.410 1.00 67.56 C
ATOM 4723 CD2 TYR C 696 163.336 158.157 190.992 1.00 67.56 C
ATOM 4724 CE1 TYR C 696 165.861 157.116 191.305 1.00 67.56 C
ATOM 4725 CE2 TYR C 696 164.430 158.982 190.886 1.00 67.56 C
ATOM 4726 CZ TYR C 696 165.692 158.456 191.044 1.00 67.56 C
ATOM 4727 OH TYR C 696 166.798 159.268 190.942 1.00 67.56 O
ATOM 4728 N VAL C 697 160.261 153.697 192.048 1.00 69.28 N
ATOM 4729 CA VAL C 697 158.992 153.294 192.642 1.00 69.28 C
ATOM 4730 C VAL C 697 159.099 152.029 193.475 1.00 69.28 C
ATOM 4731 O VAL C 697 158.188 151.740 194.257 1.00 69.28 O
ATOM 4732 CB VAL C 697 157.924 153.099 191.548 1.00 69.28 C
ATOM 4733 CG1 VAL C 697 156.600 152.705 192.165 1.00 69.28 C
ATOM 4734 CG2 VAL C 697 157.774 154.364 190.734 1.00 69.28 C
ATOM 4735 N GLU C 698 160.180 151.266 193.336 1.00 73.64 N
ATOM 4736 CA GLU C 698 160.346 150.045 194.114 1.00 73.64 C
ATOM 4737 C GLU C 698 161.177 150.241 195.369 1.00 73.64 C
ATOM 4738 O GLU C 698 160.906 149.591 196.382 1.00 73.64 O
ATOM 4739 CB GLU C 698 160.991 148.945 193.268 1.00 73.64 C
ATOM 4740 CG GLU C 698 161.551 147.808 194.098 1.00 73.64 C
ATOM 4741 CD GLU C 698 161.955 146.615 193.260 1.00 73.64 C

ATOM 4742 OE1 GLU C 698 161.713 146.637 192.036 1.00 73.64 O
ATOM 4743 OE2 GLU C 698 162.513 145.653 193.827 1.00 73.64 O
ATOM 4744 N ASP C 699 162.185 151.110 195.332 1.00 75.05 N
ATOM 4745 CA ASP C 699 162.918 151.422 196.552 1.00 75.05 C
ATOM 4746 C ASP C 699 162.073 152.194 197.554 1.00 75.05 C
ATOM 4747 O ASP C 699 162.474 152.311 198.715 1.00 75.05 O
ATOM 4748 CB ASP C 699 164.182 152.216 196.228 1.00 75.05 C
ATOM 4749 CG ASP C 699 165.138 152.287 197.399 1.00 75.05 C
ATOM 4750 OD1 ASP C 699 164.988 153.199 198.240 1.00 75.05 O
ATOM 4751 OD2 ASP C 699 166.039 151.429 197.483 1.00 75.05 O
ATOM 4752 N LYS C 700 160.924 152.723 197.133 1.00 76.59 N
ATOM 4753 CA LYS C 700 160.005 153.418 198.021 1.00 76.59 C
ATOM 4754 C LYS C 700 158.842 152.546 198.464 1.00 76.59 C
ATOM 4755 O LYS C 700 158.140 152.913 199.410 1.00 76.59 O
ATOM 4756 CB LYS C 700 159.446 154.673 197.341 1.00 76.59 C
ATOM 4757 CG LYS C 700 160.415 155.841 197.251 1.00 76.59 C
ATOM 4758 CD LYS C 700 161.731 155.435 196.600 1.00 76.59 C
ATOM 4759 CE LYS C 700 162.374 156.595 195.858 1.00 76.59 C
ATOM 4760 NZ LYS C 700 163.737 156.259 195.361 1.00 76.59 N
ATOM 4761 N VAL C 701 158.614 151.421 197.796 1.00 78.43 N
ATOM 4762 CA VAL C 701 157.545 150.503 198.153 1.00 78.43 C
ATOM 4763 C VAL C 701 158.057 149.385 199.061 1.00 78.43 C
ATOM 4764 O VAL C 701 157.367 148.390 199.269 1.00 78.43 O
ATOM 4765 CB VAL C 701 156.857 149.934 196.903 1.00 78.43 C
ATOM 4766 CG1 VAL C 701 157.814 149.048 196.129 1.00 78.43 C
ATOM 4767 CG2 VAL C 701 155.618 149.157 197.287 1.00 78.43 C
ATOM 4768 N VAL C 702 159.261 149.533 199.601 1.00 80.83 N
ATOM 4769 CA VAL C 702 159.791 148.577 200.560 1.00 80.83 C
ATOM 4770 C VAL C 702 159.787 149.116 201.982 1.00 80.83 C
ATOM 4771 O VAL C 702 159.718 148.315 202.927 1.00 80.83 O
ATOM 4772 CB VAL C 702 161.212 148.123 200.169 1.00 80.83 C
ATOM 4773 CG1 VAL C 702 161.747 147.136 201.188 1.00 80.83 C
ATOM 4774 CG2 VAL C 702 161.207 147.513 198.781 1.00 80.83 C
ATOM 4775 N ASP C 703 159.865 150.429 202.171 1.00 85.56 N

ATOM 4776 CA ASP C 703 159.789 151.009 203.504 1.00 85.56 C
ATOM 4777 C ASP C 703 158.345 151.018 203.996 1.00 85.56 C
ATOM 4778 O ASP C 703 158.041 150.413 205.031 1.00 85.56 O
ATOM 4779 CB ASP C 703 160.373 152.421 203.503 1.00 85.56 C
ATOM 4780 CG ASP C 703 161.705 152.497 202.787 1.00 85.56 C
ATOM 4781 OD1 ASP C 703 162.344 151.440 202.612 1.00 85.56 O
ATOM 4782 OD2 ASP C 703 162.114 153.610 202.399 1.00 85.56 O
ATOM 4783 N PRO C 704 157.427 151.683 203.287 1.00 87.45 N
ATOM 4784 CA PRO C 704 156.034 151.732 203.751 1.00 87.45 C
ATOM 4785 C PRO C 704 155.368 150.369 203.757 1.00 87.45 C
ATOM 4786 O PRO C 704 154.795 149.958 204.770 1.00 87.45 O
ATOM 4787 CB PRO C 704 155.361 152.673 202.742 1.00 87.45 C
ATOM 4788 CG PRO C 704 156.466 153.492 202.197 1.00 87.45 C
ATOM 4789 CD PRO C 704 157.643 152.566 202.132 1.00 87.45 C
ATOM 4790 N LEU C 705 155.436 149.661 202.631 1.00 92.73 N
ATOM 4791 CA LEU C 705 154.792 148.360 202.509 1.00 92.73 C
ATOM 4792 C LEU C 705 155.263 147.454 203.637 1.00 92.73 C
ATOM 4793 O LEU C 705 156.262 147.761 204.301 1.00 92.73 O
ATOM 4794 CB LEU C 705 155.072 147.738 201.142 1.00 92.73 C
ATOM 4795 CG LEU C 705 154.069 148.149 200.064 1.00 92.73 C
ATOM 4796 CD1 LEU C 705 152.696 147.604 200.402 1.00 92.73 C
ATOM 4797 CD2 LEU C 705 154.016 149.661 199.930 1.00 92.73 C
ATOM 4798 N PRO C 706 154.588 146.334 203.874 1.00101.21 N
ATOM 4799 CA PRO C 706 154.696 145.656 205.170 1.00101.21 C
ATOM 4800 C PRO C 706 156.141 145.393 205.553 1.00101.21 C
ATOM 4801 O PRO C 706 156.824 144.567 204.931 1.00101.21 O
ATOM 4802 CB PRO C 706 153.932 144.340 204.947 1.00101.21 C
ATOM 4803 CG PRO C 706 153.865 144.174 203.463 1.00101.21 C
ATOM 4804 CD PRO C 706 153.782 145.561 202.915 1.00101.21 C
ATOM 4805 N PRO C 707 156.639 146.082 206.576 1.00101.72 N
ATOM 4806 CA PRO C 707 157.871 145.640 207.234 1.00101.72 C
ATOM 4807 C PRO C 707 157.575 144.439 208.112 1.00101.72 C
ATOM 4808 O PRO C 707 156.463 143.905 208.070 1.00101.72 O
ATOM 4809 CB PRO C 707 158.301 146.865 208.053 1.00101.72 C

ATOM 4810 CG PRO C 707 157.478 148.009 207.519 1.00101.72 C
ATOM 4811 CD PRO C 707 156.194 147.388 207.079 1.00101.72 C
ATOM 4812 N TYR C 708 158.545 143.997 208.903 1.00105.59 N
ATOM 4813 CA TYR C 708 158.364 142.796 209.701 1.00105.59 C
ATOM 4814 C TYR C 708 158.911 142.999 211.102 1.00105.59 C
ATOM 4815 O TYR C 708 160.027 143.495 211.275 1.00105.59 O
ATOM 4816 CB TYR C 708 159.065 141.601 209.057 1.00105.59 C
ATOM 4817 CG TYR C 708 160.547 141.817 208.869 1.00105.59 C
ATOM 4818 CD1 TYR C 708 161.034 142.490 207.760 1.00105.59 C
ATOM 4819 CD2 TYR C 708 161.458 141.360 209.808 1.00105.59 C
ATOM 4820 CE1 TYR C 708 162.384 142.691 207.587 1.00105.59 C
ATOM 4821 CE2 TYR C 708 162.809 141.558 209.644 1.00105.59 C
ATOM 4822 CZ TYR C 708 163.267 142.225 208.532 1.00105.59 C
ATOM 4823 OH TYR C 708 164.616 142.426 208.359 1.00105.59 O
ATOM 4824 N LEU C 709 158.118 142.605 212.096 1.00105.14 N
ATOM 4825 CA LEU C 709 158.653 142.359 213.427 1.00105.14 C
ATOM 4826 C LEU C 709 159.464 143.547 213.928 1.00105.14 C
ATOM 4827 O LEU C 709 160.680 143.440 214.112 1.00105.14 O
ATOM 4828 CB LEU C 709 159.499 141.087 213.392 1.00105.14 C
ATOM 4829 CG LEU C 709 158.790 139.968 212.623 1.00105.14 C
ATOM 4830 CD1 LEU C 709 159.597 138.684 212.603 1.00105.14 C
ATOM 4831 CD2 LEU C 709 157.425 139.726 213.222 1.00105.14 C
ATOM 4832 N LYS C 710 158.790 144.681 214.139 1.00107.58 N
ATOM 4833 CA LYS C 710 159.429 145.966 214.410 1.00107.58 C
ATOM 4834 C LYS C 710 160.756 145.835 215.154 1.00107.58 C
ATOM 4835 O LYS C 710 161.788 146.348 214.707 1.00107.58 O
ATOM 4836 CB LYS C 710 158.456 146.844 215.211 1.00107.58 C
ATOM 4837 CG LYS C 710 157.046 146.914 214.626 1.00107.58 C
ATOM 4838 CD LYS C 710 157.020 147.657 213.301 1.00107.58 C
ATOM 4839 CE LYS C 710 156.039 147.028 212.326 1.00107.58 C
ATOM 4840 NZ LYS C 710 156.310 147.477 210.933 1.00107.58 N
ATOM 4841 N GLY C 711 160.746 145.143 216.292 1.00103.26 N
ATOM 4842 CA GLY C 711 161.947 144.981 217.085 1.00103.26 C
ATOM 4843 C GLY C 711 162.729 143.722 216.774 1.00103.26 C

ATOM 4844 O GLY C 711 163.097 142.981 217.688 1.00103.26 O
ATOM 4845 N LEU C 712 162.985 143.466 215.491 1.00 99.05 N
ATOM 4846 CA LEU C 712 163.775 142.311 215.072 1.00 99.05 C
ATOM 4847 C LEU C 712 164.918 142.649 214.130 1.00 99.05 C
ATOM 4848 O LEU C 712 165.864 141.860 214.035 1.00 99.05 O
ATOM 4849 CB LEU C 712 162.882 141.264 214.391 1.00 99.05 C
ATOM 4850 CG LEU C 712 163.619 140.139 213.668 1.00 99.05 C
ATOM 4851 CD1 LEU C 712 164.537 139.422 214.632 1.00 99.05 C
ATOM 4852 CD2 LEU C 712 162.641 139.170 213.043 1.00 99.05 C
ATOM 4853 N ASP C 713 164.866 143.783 213.430 1.00101.08 N
ATOM 4854 CA ASP C 713 165.930 144.132 212.496 1.00101.08 C
ATOM 4855 C ASP C 713 167.287 144.209 213.184 1.00101.08 C
ATOM 4856 O ASP C 713 168.324 144.033 212.531 1.00101.08 O
ATOM 4857 CB ASP C 713 165.596 145.454 211.806 1.00101.08 C
ATOM 4858 CG ASP C 713 166.599 145.827 210.746 1.00101.08 C
ATOM 4859 OD1 ASP C 713 167.736 146.188 211.108 1.00101.08 O
ATOM 4860 OD2 ASP C 713 166.254 145.766 209.547 1.00101.08 O
ATOM 4861 N ASP C 714 167.311 144.462 214.494 1.00102.95 N
ATOM 4862 CA ASP C 714 168.591 144.564 215.186 1.00102.95 C
ATOM 4863 C ASP C 714 169.296 143.216 215.250 1.00102.95 C
ATOM 4864 O ASP C 714 170.507 143.132 215.023 1.00102.95 O
ATOM 4865 CB ASP C 714 168.397 145.133 216.588 1.00102.95 C
ATOM 4866 CG ASP C 714 169.651 145.808 217.120 1.00102.95 C
ATOM 4867 OD1 ASP C 714 169.965 146.922 216.655 1.00102.95 O
ATOM 4868 OD2 ASP C 714 170.325 145.229 217.996 1.00102.95 O
ATOM 4869 N LEU C 715 168.559 142.147 215.562 1.00 99.17 N
ATOM 4870 CA LEU C 715 169.181 140.829 215.605 1.00 99.17 C
ATOM 4871 C LEU C 715 169.870 140.509 214.288 1.00 99.17 C
ATOM 4872 O LEU C 715 170.993 139.994 214.275 1.00 99.17 O
ATOM 4873 CB LEU C 715 168.145 139.757 215.936 1.00 99.17 C
ATOM 4874 CG LEU C 715 168.732 138.371 216.196 1.00 99.17 C
ATOM 4875 CD1 LEU C 715 169.779 138.430 217.291 1.00 99.17 C
ATOM 4876 CD2 LEU C 715 167.641 137.384 216.554 1.00 99.17 C
ATOM 4877 N MET C 716 169.217 140.815 213.167 1.00102.19 N

ATOM 4878 CA MET C 716 169.857 140.625 211.874 1.00102.19 C
ATOM 4879 C MET C 716 171.002 141.599 211.654 1.00102.19 C
ATOM 4880 O MET C 716 171.920 141.291 210.888 1.00102.19 O
ATOM 4881 CB MET C 716 168.835 140.765 210.748 1.00102.19 C
ATOM 4882 CG MET C 716 169.426 140.603 209.360 1.00102.19 C
ATOM 4883 SD MET C 716 169.989 142.161 208.652 1.00102.19 S
ATOM 4884 CE MET C 716 168.421 142.953 208.308 1.00102.19 C
ATOM 4885 N SER C 717 170.973 142.764 212.298 1.00100.46 N
ATOM 4886 CA SER C 717 172.067 143.719 212.193 1.00100.46 C
ATOM 4887 C SER C 717 172.968 143.730 213.419 1.00100.46 C
ATOM 4888 O SER C 717 174.032 144.353 213.381 1.00100.46 O
ATOM 4889 CB SER C 717 171.521 145.126 211.946 1.00100.46 C
ATOM 4890 OG SER C 717 172.477 146.104 212.311 1.00100.46 O
ATOM 4891 N GLY C 718 172.574 143.064 214.499 1.00102.91 N
ATOM 4892 CA GLY C 718 173.407 142.982 215.681 1.00102.91 C
ATOM 4893 C GLY C 718 174.146 141.665 215.733 1.00102.91 C
ATOM 4894 O GLY C 718 174.999 141.445 216.598 1.00102.91 O
ATOM 4895 N LEU C 719 173.812 140.777 214.798 1.00105.23 N
ATOM 4896 CA LEU C 719 174.506 139.509 214.625 1.00105.23 C
ATOM 4897 C LEU C 719 175.100 139.331 213.240 1.00105.23 C
ATOM 4898 O LEU C 719 176.076 138.583 213.105 1.00105.23 O
ATOM 4899 CB LEU C 719 173.563 138.331 214.910 1.00105.23 C
ATOM 4900 CG LEU C 719 174.133 136.927 214.714 1.00105.23 C
ATOM 4901 CD1 LEU C 719 175.523 136.832 215.306 1.00105.23 C
ATOM 4902 CD2 LEU C 719 173.221 135.890 215.339 1.00105.23 C
ATOM 4903 N GLY C 720 174.559 139.984 212.215 1.00107.68 N
ATOM 4904 CA GLY C 720 175.139 139.966 210.892 1.00107.68 C
ATOM 4905 C GLY C 720 176.413 140.759 210.750 1.00107.68 C
ATOM 4906 O GLY C 720 176.866 140.995 209.627 1.00107.68 O
ATOM 4907 N ALA C 721 177.003 141.195 211.862 1.00111.43 N
ATOM 4908 CA ALA C 721 178.286 141.891 211.836 1.00111.43 C
ATOM 4909 C ALA C 721 179.271 141.420 212.892 1.00111.43 C
ATOM 4910 O ALA C 721 180.436 141.828 212.836 1.00111.43 O
ATOM 4911 CB ALA C 721 178.080 143.401 211.992 1.00111.43 C

ATOM 4912 N ALA C 722 178.865 140.593 213.852 1.00112.69 N
ATOM 4913 CA ALA C 722 179.764 140.071 214.875 1.00112.69 C
ATOM 4914 C ALA C 722 178.970 139.098 215.738 1.00112.69 C
ATOM 4915 O ALA C 722 177.738 139.061 215.692 1.00112.69 O
ATOM 4916 CB ALA C 722 180.373 141.183 215.728 1.00112.69 C
ATOM 4917 N GLY C 723 179.695 138.311 216.529 1.00115.66 N
ATOM 4918 CA GLY C 723 179.078 137.321 217.391 1.00115.66 C
ATOM 4919 C GLY C 723 179.078 135.941 216.766 1.00115.66 C
ATOM 4920 O GLY C 723 178.282 135.662 215.865 1.00115.66 O
ATOM 4921 N LYS C 724 179.963 135.063 217.239 1.00114.28 N
ATOM 4922 CA LYS C 724 180.139 133.770 216.588 1.00114.28 C
ATOM 4923 C LYS C 724 179.092 132.761 217.048 1.00114.28 C
ATOM 4924 O LYS C 724 178.283 132.279 216.248 1.00114.28 O
ATOM 4925 CB LYS C 724 181.552 133.244 216.854 1.00114.28 C
ATOM 4926 CG LYS C 724 182.650 134.065 216.196 1.00114.28 C
ATOM 4927 CD LYS C 724 182.615 133.921 214.684 1.00114.28 C
ATOM 4928 CE LYS C 724 183.516 134.945 214.011 1.00114.28 C
ATOM 4929 NZ LYS C 724 182.950 136.319 214.093 1.00114.28 N
ATOM 4930 N ALA C 725 179.088 132.434 218.341 1.00112.61 N
ATOM 4931 CA ALA C 725 178.204 131.412 218.876 1.00112.61 C
ATOM 4932 C ALA C 725 177.273 131.911 219.969 1.00112.61 C
ATOM 4933 O ALA C 725 176.290 131.225 220.277 1.00112.61 O
ATOM 4934 CB ALA C 725 179.018 130.230 219.421 1.00112.61 C
ATOM 4935 N VAL C 726 177.548 133.068 220.567 1.00110.97 N
ATOM 4936 CA VAL C 726 176.677 133.582 221.618 1.00110.97 C
ATOM 4937 C VAL C 726 175.439 134.235 221.020 1.00110.97 C
ATOM 4938 O VAL C 726 174.334 134.099 221.557 1.00110.97 O
ATOM 4939 CB VAL C 726 177.453 134.554 222.523 1.00110.97 C
ATOM 4940 CG1 VAL C 726 178.660 133.861 223.130 1.00110.97 C
ATOM 4941 CG2 VAL C 726 177.875 135.783 221.739 1.00110.97 C
ATOM 4942 N GLY C 727 175.602 134.949 219.907 1.00109.35 N
ATOM 4943 CA GLY C 727 174.506 135.632 219.250 1.00109.35 C
ATOM 4944 C GLY C 727 173.225 134.827 219.200 1.00109.35 C
ATOM 4945 O GLY C 727 172.135 135.366 219.416 1.00109.35 O

ATOM 4946 N VAL C 728 173.345 133.529 218.921 1.00105.49 N
ATOM 4947 CA VAL C 728 172.163 132.676 218.862 1.00105.49 C
ATOM 4948 C VAL C 728 171.448 132.659 220.207 1.00105.49 C
ATOM 4949 O VAL C 728 170.214 132.675 220.268 1.00105.49 O
ATOM 4950 CB VAL C 728 172.547 131.258 218.407 1.00105.49 C
ATOM 4951 CG1 VAL C 728 171.330 130.351 218.424 1.00105.49 C
ATOM 4952 CG2 VAL C 728 173.172 131.301 217.024 1.00105.49 C
ATOM 4953 N ALA C 729 172.205 132.641 221.306 1.00103.77 N
ATOM 4954 CA ALA C 729 171.580 132.585 222.626 1.00103.77 C
ATOM 4955 C ALA C 729 170.889 133.899 222.973 1.00103.77 C
ATOM 4956 O ALA C 729 169.776 133.900 223.517 1.00103.77 O
ATOM 4957 CB ALA C 729 172.623 132.230 223.684 1.00103.77 C
ATOM 4958 N ILE C 730 171.543 135.027 222.691 1.00102.68 N
ATOM 4959 CA ILE C 730 170.896 136.320 222.893 1.00102.68 C
ATOM 4960 C ILE C 730 169.610 136.397 222.084 1.00102.68 C
ATOM 4961 O ILE C 730 168.581 136.874 222.573 1.00102.68 O
ATOM 4962 CB ILE C 730 171.860 137.467 222.539 1.00102.68 C
ATOM 4963 CG1 ILE C 730 173.035 137.494 223.515 1.00102.68 C
ATOM 4964 CG2 ILE C 730 171.131 138.792 222.544 1.00102.68 C
ATOM 4965 CD1 ILE C 730 174.138 138.439 223.109 1.00102.68 C
ATOM 4966 N GLY C 731 169.649 135.936 220.835 1.00101.03 N
ATOM 4967 CA GLY C 731 168.439 135.915 220.033 1.00101.03 C
ATOM 4968 C GLY C 731 167.365 135.022 220.623 1.00101.03 C
ATOM 4969 O GLY C 731 166.183 135.364 220.608 1.00101.03 O
ATOM 4970 N ALA C 732 167.764 133.869 221.161 1.00101.79 N
ATOM 4971 CA ALA C 732 166.789 132.943 221.726 1.00101.79 C
ATOM 4972 C ALA C 732 166.128 133.511 222.973 1.00101.79 C
ATOM 4973 O ALA C 732 164.949 133.239 223.225 1.00101.79 O
ATOM 4974 CB ALA C 732 167.457 131.607 222.045 1.00101.79 C
ATOM 4975 N VAL C 733 166.864 134.288 223.766 1.00 99.72 N
ATOM 4976 CA VAL C 733 166.253 134.918 224.934 1.00 99.72 C
ATOM 4977 C VAL C 733 165.378 136.092 224.515 1.00 99.72 C
ATOM 4978 O VAL C 733 164.270 136.277 225.037 1.00 99.72 O
ATOM 4979 CB VAL C 733 167.335 135.348 225.939 1.00 99.72 C

ATOM 4980 CG1 VAL C 733 166.711 136.129 227.075 1.00 99.72 C
ATOM 4981 CG2 VAL C 733 168.064 134.133 226.474 1.00 99.72 C
ATOM 4982 N GLY C 734 165.857 136.907 223.574 1.00 99.14 N
ATOM 4983 CA GLY C 734 165.025 137.965 223.037 1.00 99.14 C
ATOM 4984 C GLY C 734 163.730 137.448 222.450 1.00 99.14 C
ATOM 4985 O GLY C 734 162.707 138.128 222.506 1.00 99.14 O
ATOM 4986 N GLY C 735 163.754 136.246 221.880 1.00100.79 N
ATOM 4987 CA GLY C 735 162.533 135.676 221.337 1.00100.79 C
ATOM 4988 C GLY C 735 161.387 135.699 222.326 1.00100.79 C
ATOM 4989 O GLY C 735 160.241 135.963 221.958 1.00100.79 O
ATOM 4990 N ALA C 736 161.682 135.429 223.596 1.00101.41 N
ATOM 4991 CA ALA C 736 160.668 135.451 224.641 1.00101.41 C
ATOM 4992 C ALA C 736 160.518 136.830 225.267 1.00101.41 C
ATOM 4993 O ALA C 736 159.399 137.243 225.589 1.00101.41 O
ATOM 4994 CB ALA C 736 161.004 134.423 225.723 1.00101.41 C
ATOM 4995 N VAL C 737 161.622 137.560 225.441 1.00100.83 N
ATOM 4996 CA VAL C 737 161.534 138.872 226.074 1.00100.83 C
ATOM 4997 C VAL C 737 160.813 139.890 225.198 1.00100.83 C
ATOM 4998 O VAL C 737 160.313 140.896 225.713 1.00100.83 O
ATOM 4999 CB VAL C 737 162.934 139.383 226.458 1.00100.83 C
ATOM 5000 CG1 VAL C 737 162.888 140.864 226.779 1.00100.83 C
ATOM 5001 CG2 VAL C 737 163.463 138.608 227.646 1.00100.83 C
ATOM 5002 N ALA C 738 160.732 139.661 223.889 1.00100.01 N
ATOM 5003 CA ALA C 738 160.050 140.568 222.979 1.00100.01 C
ATOM 5004 C ALA C 738 158.629 140.127 222.669 1.00100.01 C
ATOM 5005 O ALA C 738 158.009 140.671 221.751 1.00100.01 O
ATOM 5006 CB ALA C 738 160.845 140.715 221.683 1.00100.01 C
ATOM 5007 N SER C 739 158.106 139.149 223.402 1.00101.86 N
ATOM 5008 CA SER C 739 156.700 138.788 223.310 1.00101.86 C
ATOM 5009 C SER C 739 155.858 139.469 224.376 1.00101.86 C
ATOM 5010 O SER C 739 154.626 139.450 224.279 1.00101.86 O
ATOM 5011 CB SER C 739 156.532 137.270 223.420 1.00101.86 C
ATOM 5012 OG SER C 739 155.200 136.886 223.134 1.00101.86 O
ATOM 5013 N VAL C 740 156.490 140.061 225.383 1.00101.64 N

ATOM 5014 CA VAL C 740 155.780 140.822 226.404 1.00101.64 C
ATOM 5015 C VAL C 740 155.728 142.301 226.049 1.00101.64 C
ATOM 5016 O VAL C 740 154.709 142.964 226.264 1.00101.64 O
ATOM 5017 CB VAL C 740 156.442 140.596 227.776 1.00101.64 C
ATOM 5018 CG1 VAL C 740 155.837 141.518 228.813 1.00101.64 C
ATOM 5019 CG2 VAL C 740 156.297 139.148 228.197 1.00101.64 C
ATOM 5020 N VAL C 741 156.828 142.840 225.518 1.00100.21 N
ATOM 5021 CA VAL C 741 156.847 144.245 225.134 1.00100.21 C
ATOM 5022 C VAL C 741 155.825 144.520 224.044 1.00100.21 C
ATOM 5023 O VAL C 741 155.208 145.589 224.020 1.00100.21 O
ATOM 5024 CB VAL C 741 158.262 144.664 224.696 1.00100.21 C
ATOM 5025 CG1 VAL C 741 158.208 145.971 223.933 1.00100.21 C
ATOM 5026 CG2 VAL C 741 159.167 144.794 225.904 1.00100.21 C
ATOM 5027 N GLU C 742 155.612 143.568 223.135 1.00102.36 N
ATOM 5028 CA GLU C 742 154.605 143.772 222.099 1.00102.36 C
ATOM 5029 C GLU C 742 153.208 143.860 222.699 1.00102.36 C
ATOM 5030 O GLU C 742 152.415 144.728 222.316 1.00102.36 O
ATOM 5031 CB GLU C 742 154.677 142.654 221.063 1.00102.36 C
ATOM 5032 CG GLU C 742 155.935 142.692 220.228 1.00102.36 C
ATOM 5033 CD GLU C 742 156.018 143.946 219.385 1.00102.36 C
ATOM 5034 OE1 GLU C 742 154.954 144.462 218.988 1.00102.36 O
ATOM 5035 OE2 GLU C 742 157.143 144.418 219.122 1.00102.36 O
ATOM 5036 N GLY C 743 152.887 142.967 223.634 1.00103.83 N
ATOM 5037 CA GLY C 743 151.599 143.053 224.300 1.00103.83 C
ATOM 5038 C GLY C 743 151.429 144.351 225.062 1.00103.83 C
ATOM 5039 O GLY C 743 150.350 144.948 225.061 1.00103.83 O
ATOM 5040 N VAL C 744 152.495 144.811 225.720 1.00100.88 N
ATOM 5041 CA VAL C 744 152.400 146.049 226.488 1.00100.88 C
ATOM 5042 C VAL C 744 152.328 147.260 225.567 1.00100.88 C
ATOM 5043 O VAL C 744 151.838 148.321 225.966 1.00100.88 O
ATOM 5044 CB VAL C 744 153.579 146.160 227.470 1.00100.88 C
ATOM 5045 CG1 VAL C 744 153.633 147.548 228.073 1.00100.88 C
ATOM 5046 CG2 VAL C 744 153.450 145.114 228.561 1.00100.88 C
ATOM 5047 N ALA C 745 152.810 147.131 224.330 1.00100.69 N

ATOM 5048 CA ALA C 745 152.741 148.247 223.394 1.00100.69 C
ATOM 5049 C ALA C 745 151.381 148.320 222.712 1.00100.69 C
ATOM 5050 O ALA C 745 150.817 149.409 222.565 1.00100.69 O
ATOM 5051 CB ALA C 745 153.853 148.132 222.354 1.00100.69 C
ATOM 5052 N THR C 746 150.840 147.177 222.286 1.00103.62 N
ATOM 5053 CA THR C 746 149.498 147.168 221.717 1.00103.62 C
ATOM 5054 C THR C 746 148.463 147.695 222.699 1.00103.62 C
ATOM 5055 O THR C 746 147.395 148.150 222.276 1.00103.62 O
ATOM 5056 CB THR C 746 149.119 145.757 221.271 1.00103.62 C
ATOM 5057 OG1 THR C 746 150.028 145.316 220.256 1.00103.62 O
ATOM 5058 CG2 THR C 746 147.707 145.736 220.720 1.00103.62 C
ATOM 5059 N PHE C 747 148.753 147.645 223.998 1.00100.32 N
ATOM 5060 CA PHE C 747 147.859 148.191 225.007 1.00100.32 C
ATOM 5061 C PHE C 747 147.859 149.713 225.022 1.00100.32 C
ATOM 5062 O PHE C 747 146.919 150.313 225.550 1.00100.32 O
ATOM 5063 CB PHE C 747 148.249 147.654 226.385 1.00100.32 C
ATOM 5064 CG PHE C 747 147.331 148.077 227.493 1.00100.32 C
ATOM 5065 CD1 PHE C 747 147.553 149.252 228.185 1.00100.32 C
ATOM 5066 CD2 PHE C 747 146.258 147.286 227.859 1.00100.32 C
ATOM 5067 CE1 PHE C 747 146.715 149.638 229.208 1.00100.32 C
ATOM 5068 CE2 PHE C 747 145.417 147.668 228.882 1.00100.32 C
ATOM 5069 CZ PHE C 747 145.647 148.845 229.557 1.00100.32 C
ATOM 5070 N LEU C 748 148.886 150.348 224.455 1.00100.74 N
ATOM 5071 CA LEU C 748 148.979 151.801 224.393 1.00100.74 C
ATOM 5072 C LEU C 748 148.494 152.355 223.057 1.00100.74 C
ATOM 5073 O LEU C 748 148.934 153.427 222.632 1.00100.74 O
ATOM 5074 CB LEU C 748 150.413 152.255 224.665 1.00100.74 C
ATOM 5075 CG LEU C 748 150.999 151.888 226.029 1.00100.74 C
ATOM 5076 CD1 LEU C 748 152.412 152.421 226.165 1.00100.74 C
ATOM 5077 CD2 LEU C 748 150.123 152.416 227.145 1.00100.74 C
ATOM 5078 N LYS C 749 147.596 151.638 222.383 1.00101.31 N
ATOM 5079 CA LYS C 749 146.989 152.109 221.148 1.00101.31 C
ATOM 5080 C LYS C 749 145.487 152.311 221.269 1.00101.31 C
ATOM 5081 O LYS C 749 144.863 152.794 220.318 1.00101.31 O

ATOM 5082 CB LYS C 749 147.284 151.135 220.001 1.00101.31 C
ATOM 5083 CG LYS C 749 148.730 150.686 219.926 1.00101.31 C
ATOM 5084 CD LYS C 749 149.634 151.822 219.493 1.00101.31 C
ATOM 5085 CE LYS C 749 150.997 151.308 219.067 1.00101.31 C
ATOM 5086 NZ LYS C 749 150.899 150.348 217.935 1.00101.31 N
ATOM 5087 N ASN C 750 144.890 151.954 222.402 1.00 99.22 N
ATOM 5088 CA ASN C 750 143.481 152.179 222.659 1.00 99.22 C
ATOM 5089 C ASN C 750 143.318 153.385 223.564 1.00 99.22 C
ATOM 5090 O ASN C 750 143.899 153.409 224.657 1.00 99.22 O
ATOM 5091 CB ASN C 750 142.850 150.954 223.317 1.00 99.22 C
ATOM 5092 CG ASN C 750 143.041 149.699 222.505 1.00 99.22 C
ATOM 5093 OD1 ASN C 750 144.146 149.401 222.054 1.00 99.22 O
ATOM 5094 ND2 ASN C 750 141.964 148.954 222.308 1.00 99.22 N
ATOM 5095 N PRO C 751 142.560 154.401 223.151 1.00100.73 N
ATOM 5096 CA PRO C 751 142.333 155.545 224.048 1.00100.73 C
ATOM 5097 C PRO C 751 141.993 155.126 225.467 1.00100.73 C
ATOM 5098 O PRO C 751 142.642 155.578 226.419 1.00100.73 O
ATOM 5099 CB PRO C 751 141.181 156.285 223.362 1.00100.73 C
ATOM 5100 CG PRO C 751 141.354 155.969 221.925 1.00100.73 C
ATOM 5101 CD PRO C 751 141.875 154.563 221.859 1.00100.73 C
ATOM 5102 N PHE C 752 140.995 154.258 225.637 1.00101.71 N
ATOM 5103 CA PHE C 752 140.670 153.752 226.963 1.00101.71 C
ATOM 5104 C PHE C 752 141.802 152.937 227.568 1.00101.71 C
ATOM 5105 O PHE C 752 141.772 152.666 228.773 1.00101.71 O
ATOM 5106 CB PHE C 752 139.401 152.904 226.907 1.00101.71 C
ATOM 5107 CG PHE C 752 138.379 153.405 225.931 1.00101.71 C
ATOM 5108 CD1 PHE C 752 137.793 154.646 226.099 1.00101.71 C
ATOM 5109 CD2 PHE C 752 138.005 152.636 224.845 1.00101.71 C
ATOM 5110 CE1 PHE C 752 136.854 155.109 225.202 1.00101.71 C
ATOM 5111 CE2 PHE C 752 137.067 153.094 223.948 1.00101.71 C
ATOM 5112 CZ PHE C 752 136.491 154.332 224.127 1.00101.71 C
ATOM 5113 N GLY C 753 142.787 152.535 226.771 1.00101.58 N
ATOM 5114 CA GLY C 753 143.929 151.817 227.295 1.00101.58 C
ATOM 5115 C GLY C 753 145.025 152.751 227.758 1.00101.58 C

ATOM 5116 O GLY C 753 145.482 152.669 228.901 1.00101.58 O
ATOM 5117 N ALA C 754 145.453 153.653 226.874 1.00102.92 N
ATOM 5118 CA ALA C 754 146.478 154.624 227.225 1.00102.92 C
ATOM 5119 C ALA C 754 145.983 155.675 228.205 1.00102.92 C
ATOM 5120 O ALA C 754 146.796 156.456 228.708 1.00102.92 O
ATOM 5121 CB ALA C 754 147.008 155.311 225.966 1.00102.92 C
ATOM 5122 N PHE C 755 144.682 155.716 228.487 1.00103.84 N
ATOM 5123 CA PHE C 755 144.139 156.697 229.414 1.00103.84 C
ATOM 5124 C PHE C 755 144.210 156.248 230.865 1.00103.84 C
ATOM 5125 O PHE C 755 144.131 157.093 231.763 1.00103.84 O
ATOM 5126 CB PHE C 755 142.687 157.013 229.047 1.00103.84 C
ATOM 5127 CG PHE C 755 142.016 157.970 229.986 1.00103.84 C
ATOM 5128 CD1 PHE C 755 142.274 159.326 229.913 1.00103.84 C
ATOM 5129 CD2 PHE C 755 141.121 157.513 230.937 1.00103.84 C
ATOM 5130 CE1 PHE C 755 141.655 160.208 230.773 1.00103.84 C
ATOM 5131 CE2 PHE C 755 140.499 158.392 231.799 1.00103.84 C
ATOM 5132 CZ PHE C 755 140.767 159.741 231.718 1.00103.84 C
ATOM 5133 N THR C 756 144.361 154.946 231.117 1.00104.91 N
ATOM 5134 CA THR C 756 144.462 154.466 232.490 1.00104.91 C
ATOM 5135 C THR C 756 145.854 154.681 233.069 1.00104.91 C
ATOM 5136 O THR C 756 145.998 154.834 234.287 1.00104.91 O
ATOM 5137 CB THR C 756 144.094 152.985 232.562 1.00104.91 C
ATOM 5138 OG1 THR C 756 144.104 152.554 233.927 1.00104.91 O
ATOM 5139 CG2 THR C 756 145.089 152.155 231.775 1.00104.91 C
ATOM 5140 N ILE C 757 146.886 154.689 232.224 1.00104.67 N
ATOM 5141 CA ILE C 757 148.233 154.964 232.711 1.00104.67 C
ATOM 5142 C ILE C 757 148.331 156.393 233.224 1.00104.67 C
ATOM 5143 O ILE C 757 149.013 156.668 234.219 1.00104.67 O
ATOM 5144 CB ILE C 757 149.268 154.687 231.606 1.00104.67 C
ATOM 5145 CG1 ILE C 757 149.191 153.228 231.159 1.00104.67 C
ATOM 5146 CG2 ILE C 757 150.664 155.024 232.091 1.00104.67 C
ATOM 5147 CD1 ILE C 757 149.043 152.251 232.299 1.00104.67 C
ATOM 5148 N ILE C 758 147.657 157.327 232.550 1.00104.92 N
ATOM 5149 CA ILE C 758 147.685 158.719 232.977 1.00104.92 C

ATOM 5150 C ILE C 758 146.949 158.913 234.293 1.00104.92 C
ATOM 5151 O ILE C 758 147.157 159.924 234.971 1.00104.92 O
ATOM 5152 CB ILE C 758 147.098 159.623 231.879 1.00104.92 C
ATOM 5153 CG1 ILE C 758 147.893 159.463 230.584 1.00104.92 C
ATOM 5154 CG2 ILE C 758 147.099 161.071 232.324 1.00104.92 C
ATOM 5155 CD1 ILE C 758 147.602 160.528 229.558 1.00104.92 C
ATOM 5156 N LEU C 759 146.090 157.969 234.675 1.00107.20 N
ATOM 5157 CA LEU C 759 145.448 158.002 235.983 1.00107.20 C
ATOM 5158 C LEU C 759 146.287 157.301 237.041 1.00107.20 C
ATOM 5159 O LEU C 759 146.345 157.752 238.189 1.00107.20 O
ATOM 5160 CB LEU C 759 144.062 157.360 235.909 1.00107.20 C
ATOM 5161 CG LEU C 759 143.026 158.088 235.057 1.00107.20 C
ATOM 5162 CD1 LEU C 759 141.687 157.385 235.141 1.00107.20 C
ATOM 5163 CD2 LEU C 759 142.902 159.530 235.502 1.00107.20 C
ATOM 5164 N VAL C 760 146.945 156.202 236.671 1.00109.62 N
ATOM 5165 CA VAL C 760 147.818 155.505 237.611 1.00109.62 C
ATOM 5166 C VAL C 760 148.969 156.408 238.032 1.00109.62 C
ATOM 5167 O VAL C 760 149.265 156.557 239.226 1.00109.62 O
ATOM 5168 CB VAL C 760 148.331 154.191 236.995 1.00109.62 C
ATOM 5169 CG1 VAL C 760 149.606 153.749 237.688 1.00109.62 C
ATOM 5170 CG2 VAL C 760 147.268 153.114 237.093 1.00109.62 C
ATOM 5171 N ALA C 761 149.649 157.012 237.056 1.00111.45 N
ATOM 5172 CA ALA C 761 150.767 157.899 237.352 1.00111.45 C
ATOM 5173 C ALA C 761 150.330 159.222 237.957 1.00111.45 C
ATOM 5174 O ALA C 761 151.192 160.028 238.321 1.00111.45 O
ATOM 5175 CB ALA C 761 151.583 158.156 236.084 1.00111.45 C
ATOM 5176 N ILE C 762 149.027 159.468 238.071 1.00112.60 N
ATOM 5177 CA ILE C 762 148.527 160.684 238.698 1.00112.60 C
ATOM 5178 C ILE C 762 148.148 160.364 240.135 1.00112.60 C
ATOM 5179 O ILE C 762 148.291 161.200 241.033 1.00112.60 O
ATOM 5180 CB ILE C 762 147.331 161.265 237.924 1.00112.60 C
ATOM 5181 CG1 ILE C 762 147.823 162.129 236.762 1.00112.60 C
ATOM 5182 CG2 ILE C 762 146.433 162.064 238.852 1.00112.60 C
ATOM 5183 CD1 ILE C 762 146.710 162.720 235.929 1.00112.60 C

ATOM 5184 N ALA C 763 147.659 159.145 240.359 1.00116.58 N
ATOM 5185 CA ALA C 763 147.332 158.709 241.710 1.00116.58 C
ATOM 5186 C ALA C 763 148.577 158.353 242.510 1.00116.58 C
ATOM 5187 O ALA C 763 148.589 158.524 243.735 1.00116.58 O
ATOM 5188 CB ALA C 763 146.380 157.514 241.664 1.00116.58 C
ATOM 5189 N VAL C 764 149.623 157.854 241.849 1.00119.21 N
ATOM 5190 CA VAL C 764 150.835 157.483 242.574 1.00119.21 C
ATOM 5191 C VAL C 764 151.451 158.711 243.238 1.00119.21 C
ATOM 5192 O VAL C 764 151.907 158.655 244.385 1.00119.21 O
ATOM 5193 CB VAL C 764 151.833 156.781 241.635 1.00119.21 C
ATOM 5194 CG1 VAL C 764 152.542 157.790 240.747 1.00119.21 C
ATOM 5195 CG2 VAL C 764 152.835 155.972 242.438 1.00119.21 C
ATOM 5196 N VAL C 765 151.456 159.843 242.533 1.00120.59 N
ATOM 5197 CA VAL C 765 152.052 161.059 243.082 1.00120.59 C
ATOM 5198 C VAL C 765 151.237 161.555 244.270 1.00120.59 C
ATOM 5199 O VAL C 765 151.787 161.999 245.285 1.00120.59 O
ATOM 5200 CB VAL C 765 152.175 162.139 241.995 1.00120.59 C
ATOM 5201 CG1 VAL C 765 152.710 163.426 242.593 1.00120.59 C
ATOM 5202 CG2 VAL C 765 153.075 161.656 240.873 1.00120.59 C
ATOM 5203 N ILE C 766 149.913 161.504 244.152 1.00122.89 N
ATOM 5204 CA ILE C 766 149.029 161.882 245.248 1.00122.89 C
ATOM 5205 C ILE C 766 149.360 161.032 246.465 1.00122.89 C
ATOM 5206 O ILE C 766 149.576 161.557 247.564 1.00122.89 O
ATOM 5207 CB ILE C 766 147.549 161.732 244.855 1.00122.89 C
ATOM 5208 CG1 ILE C 766 147.173 162.776 243.804 1.00122.89 C
ATOM 5209 CG2 ILE C 766 146.658 161.854 246.079 1.00122.89 C
ATOM 5210 CD1 ILE C 766 147.463 164.196 244.234 1.00122.89 C
ATOM 5211 N ILE C 767 149.405 159.712 246.278 1.00124.95 N
ATOM 5212 CA ILE C 767 149.722 158.816 247.388 1.00124.95 C
ATOM 5213 C ILE C 767 151.062 159.192 248.006 1.00124.95 C
ATOM 5214 O ILE C 767 151.222 159.207 249.232 1.00124.95 O
ATOM 5215 CB ILE C 767 149.710 157.351 246.918 1.00124.95 C
ATOM 5216 CG1 ILE C 767 148.320 156.970 246.408 1.00124.95 C
ATOM 5217 CG2 ILE C 767 150.132 156.431 248.046 1.00124.95 C

ATOM 5218 CD1 ILE C 767 147.197 157.430 247.305 1.00124.95 C
ATOM 5219 N ILE C 768 152.048 159.500 247.162 1.00128.30 N
ATOM 5220 CA ILE C 768 153.371 159.872 247.664 1.00128.30 C
ATOM 5221 C ILE C 768 153.271 161.094 248.567 1.00128.30 C
ATOM 5222 O ILE C 768 153.690 161.068 249.729 1.00128.30 O
ATOM 5223 CB ILE C 768 154.341 160.118 246.497 1.00128.30 C
ATOM 5224 CG1 ILE C 768 154.521 158.845 245.673 1.00128.30 C
ATOM 5225 CG2 ILE C 768 155.679 160.612 247.018 1.00128.30 C
ATOM 5226 CD1 ILE C 768 155.221 157.742 246.418 1.00128.30 C
ATOM 5227 N TYR C 769 152.718 162.182 248.039 1.00134.80 N
ATOM 5228 CA TYR C 769 152.648 163.453 248.759 1.00134.80 C
ATOM 5229 C TYR C 769 152.137 163.283 250.183 1.00134.80 C
ATOM 5230 O TYR C 769 152.250 164.191 251.005 1.00134.80 O
ATOM 5231 CB TYR C 769 151.754 164.438 248.007 1.00134.80 C
ATOM 5232 CG TYR C 769 151.633 165.792 248.668 1.00134.80 C
ATOM 5233 CD1 TYR C 769 152.645 166.735 248.555 1.00134.80 C
ATOM 5234 CD2 TYR C 769 150.505 166.129 249.403 1.00134.80 C
ATOM 5235 CE1 TYR C 769 152.537 167.976 249.155 1.00134.80 C
ATOM 5236 CE2 TYR C 769 150.387 167.366 250.007 1.00134.80 C
ATOM 5237 CZ TYR C 769 151.406 168.287 249.879 1.00134.80 C
ATOM 5238 OH TYR C 769 151.293 169.520 250.479 1.00134.80 O
ATOM 5239 N LEU C 770 150.130 161.114 250.283 1.00141.15 N
ATOM 5240 CA LEU C 770 149.881 161.697 251.596 1.00141.15 C
ATOM 5241 C LEU C 770 150.906 161.209 252.611 1.00141.15 C
ATOM 5242 O LEU C 770 150.902 161.633 253.766 1.00141.15 O
ATOM 5243 CB LEU C 770 148.467 161.361 252.068 1.00141.15 C
ATOM 5244 CG LEU C 770 147.365 161.600 251.036 1.00141.15 C
ATOM 5245 CD1 LEU C 770 146.088 160.879 251.433 1.00141.15 C
ATOM 5246 CD2 LEU C 770 147.115 163.088 250.857 1.00141.15 C
ATOM 5247 N ILE C 771 151.790 160.314 252.165 1.00142.28 N
ATOM 5248 CA ILE C 771 152.748 159.689 253.075 1.00142.28 C
ATOM 5249 C ILE C 771 153.684 160.733 253.671 1.00142.28 C
ATOM 5250 O ILE C 771 153.935 160.753 254.881 1.00142.28 O
ATOM 5251 CB ILE C 771 153.531 158.582 252.348 1.00142.28 C

ATOM 5252 CG1 ILE C 771 152.572 157.512 251.826 1.00142.28 C
ATOM 5253 CG2 ILE C 771 154.570 157.973 253.272 1.00142.28 C
ATOM 5254 CD1 ILE C 771 153.262 156.262 251.337 1.00142.28 C
ATOM 5255 N TYR C 772 154.220 161.615 252.825 1.00146.80 N
ATOM 5256 CA TYR C 772 155.206 162.585 253.292 1.00146.80 C
ATOM 5257 C TYR C 772 154.648 163.444 254.419 1.00146.80 C
ATOM 5258 O TYR C 772 155.328 163.696 255.420 1.00146.80 O
ATOM 5259 CB TYR C 772 155.672 163.458 252.127 1.00146.80 C
ATOM 5260 CG TYR C 772 156.800 164.398 252.479 1.00146.80 C
ATOM 5261 CD1 TYR C 772 158.119 163.964 252.472 1.00146.80 C
ATOM 5262 CD2 TYR C 772 156.549 165.721 252.814 1.00146.80 C
ATOM 5263 CE1 TYR C 772 159.155 164.820 252.791 1.00146.80 C
ATOM 5264 CE2 TYR C 772 157.578 166.585 253.134 1.00146.80 C
ATOM 5265 CZ TYR C 772 158.878 166.129 253.121 1.00146.80 C
ATOM 5266 OH TYR C 772 159.905 166.988 253.440 1.00146.80 O
ATOM 5267 N THR C 773 153.406 163.907 254.272 1.00149.19 N
ATOM 5268 CA THR C 773 152.794 164.718 255.319 1.00149.19 C
ATOM 5269 C THR C 773 152.662 163.930 256.615 1.00149.19 C
ATOM 5270 O THR C 773 153.046 164.407 257.689 1.00149.19 O
ATOM 5271 CB THR C 773 151.426 165.228 254.861 1.00149.19 C
ATOM 5272 OG1 THR C 773 150.462 164.172 254.967 1.00149.19 O
ATOM 5273 CG2 THR C 773 151.491 165.707 253.421 1.00149.19 C
ATOM 5274 N ARG C 774 152.112 162.715 256.533 1.00151.10 N
ATOM 5275 CA ARG C 774 151.936 161.896 257.729 1.00151.10 C
ATOM 5276 C ARG C 774 153.238 161.769 258.510 1.00151.10 C
ATOM 5277 O ARG C 774 153.231 161.787 259.746 1.00151.10 O
ATOM 5278 CB ARG C 774 151.404 160.516 257.344 1.00151.10 C
ATOM 5279 CG ARG C 774 150.225 160.554 256.386 1.00151.10 C
ATOM 5280 CD ARG C 774 149.079 161.368 256.957 1.00151.10 C
ATOM 5281 NE ARG C 774 148.023 161.599 255.976 1.00151.10 N
ATOM 5282 CZ ARG C 774 146.983 160.793 255.792 1.00151.10 C
ATOM 5283 NH1 ARG C 774 146.858 159.692 256.522 1.00151.10 N
ATOM 5284 NH2 ARG C 774 146.069 161.083 254.878 1.00151.10 N
ATOM 5285 N GLN C 775 154.365 161.642 257.808 1.00154.55 N

ATOM 5286 CA GLN C 775 155.648 161.550 258.494 1.00154.55 C
ATOM 5287 C GLN C 775 156.001 162.850 259.204 1.00154.55 C
ATOM 5288 O GLN C 775 156.522 162.821 260.324 1.00154.55 O
ATOM 5289 CB GLN C 775 156.748 161.169 257.501 1.00154.55 C
ATOM 5290 CG GLN C 775 158.160 161.224 258.070 1.00154.55 C
ATOM 5291 CD GLN C 775 158.774 162.609 257.984 1.00154.55 C
ATOM 5292 OE1 GLN C 775 158.820 163.215 256.914 1.00154.55 O
ATOM 5293 NE2 GLN C 775 159.243 163.118 259.116 1.00154.55 N
ATOM 5294 N ARG C 776 155.725 163.995 258.576 1.00157.83 N
ATOM 5295 CA ARG C 776 156.115 165.271 259.168 1.00157.83 C
ATOM 5296 C ARG C 776 155.305 165.571 260.422 1.00157.83 C
ATOM 5297 O ARG C 776 155.831 166.143 261.384 1.00157.83 O
ATOM 5298 CB ARG C 776 155.960 166.392 258.141 1.00157.83 C
ATOM 5299 CG ARG C 776 156.109 167.788 258.717 1.00157.83 C
ATOM 5300 CD ARG C 776 156.472 168.791 257.635 1.00157.83 C
ATOM 5301 NE ARG C 776 157.784 168.515 257.055 1.00157.83 N
ATOM 5302 CZ ARG C 776 158.417 169.328 256.216 1.00157.83 C
ATOM 5303 NH1 ARG C 776 157.860 170.475 255.853 1.00157.83 N
ATOM 5304 NH2 ARG C 776 159.608 168.993 255.739 1.00157.83 N
ATOM 5305 N ARG C 777 154.024 165.194 260.434 1.00159.57 N
ATOM 5306 CA ARG C 777 153.219 165.391 261.634 1.00159.57 C
ATOM 5307 C ARG C 777 153.723 164.538 262.791 1.00159.57 C
ATOM 5308 O ARG C 777 153.566 164.920 263.956 1.00159.57 O
ATOM 5309 CB ARG C 777 151.752 165.078 261.345 1.00159.57 C
ATOM 5310 CG ARG C 777 150.858 165.133 262.575 1.00159.57 C
ATOM 5311 CD ARG C 777 149.420 164.776 262.236 1.00159.57 C
ATOM 5312 NE ARG C 777 149.264 163.352 261.954 1.00159.57 N
ATOM 5313 CZ ARG C 777 148.189 162.817 261.385 1.00159.57 C
ATOM 5314 NH1 ARG C 777 147.169 163.588 261.033 1.00159.57 N
ATOM 5315 NH2 ARG C 777 148.133 161.510 261.166 1.00159.57 N
ATOM 5316 N LEU C 778 154.323 163.387 262.493 1.00161.40 N
ATOM 5317 CA LEU C 778 154.868 162.486 263.507 1.00161.40 C
ATOM 5318 C LEU C 778 156.388 162.540 263.554 1.00161.40 C
ATOM 5319 O LEU C 778 157.048 161.519 263.767 1.00161.40 O

ATOM 5320 CB LEU C 778 154.390 161.059 263.257 1.00161.40 C
ATOM 5321 CG LEU C 778 152.912 160.785 263.539 1.00161.40 C
ATOM 5322 CD1 LEU C 778 152.684 159.308 263.818 1.00161.40 C
ATOM 5323 CD2 LEU C 778 152.422 161.636 264.700 1.00161.40 C
ATOM 5324 N CYS C 779 156.967 163.720 263.352 1.00163.89 N
ATOM 5325 CA CYS C 779 158.416 163.884 263.373 1.00163.89 C
ATOM 5326 C CYS C 779 159.019 163.334 264.660 1.00163.89 C
ATOM 5327 O CYS C 779 159.379 162.160 264.734 1.00163.89 O
ATOM 5328 CB CYS C 779 158.788 165.359 263.209 1.00163.89 C
ATOM 5329 SG CYS C 779 160.506 165.746 263.617 1.00163.89 S
TER

HETATM 5330 C1 NAG C1001 105.590 151.422 200.576 1.00103.19 C
HETATM 5331 C2 NAG C1001 104.389 151.927 199.785 1.00103.19 C
HETATM 5332 C3 NAG C1001 104.048 150.953 198.663 1.00103.19 C
HETATM 5333 C4 NAG C1001 105.278 150.665 197.814 1.00103.19 C
HETATM 5334 C5 NAG C1001 106.452 150.245 198.696 1.00103.19 C
HETATM 5335 C6 NAG C1001 107.742 150.088 197.928 1.00103.19 C
HETATM 5336 C7 NAG C1001 102.886 153.336 201.117 1.00103.19 C
HETATM 5337 C8 NAG C1001 101.675 153.369 201.998 1.00103.19 C
HETATM 5338 N2 NAG C1001 103.241 152.133 200.653 1.00103.19 N
HETATM 5339 O3 NAG C1001 103.029 151.519 197.848 1.00103.19 O
HETATM 5340 O4 NAG C1001 104.986 149.627 196.885 1.00103.19 O
HETATM 5341 O5 NAG C1001 106.691 151.238 199.703 1.00103.19 O
HETATM 5342 O6 NAG C1001 108.855 150.540 198.687 1.00103.19 O
HETATM 5343 O7 NAG C1001 103.513 154.353 200.835 1.00103.19 O
HETATM 5344 H1 NAG C1001 105.366 150.566 200.985 1.00103.19 H
HETATM 5345 H2 NAG C1001 104.615 152.780 199.372 1.00103.19 H
HETATM 5346 H3 NAG C1001 103.726 150.117 199.050 1.00103.19 H
HETATM 5347 H4 NAG C1001 105.520 151.475 197.327 1.00103.19 H
HETATM 5348 H5 NAG C1001 106.237 149.402 199.137 1.00103.19 H
HETATM 5349 H61 NAG C1001 107.687 150.607 197.105 1.00103.19 H
HETATM 5350 H62 NAG C1001 107.870 149.146 197.705 1.00103.19 H
HETATM 5351 H81 NAG C1001 101.763 152.691 202.695 1.00103.19 H

HETATM 5352 H82 NAG C1001 100.879 153.188 201.463 1.00103.19 H
HETATM 5353 H83 NAG C1001 101.598 154.251 202.409 1.00103.19 H
HETATM 5354 HN2 NAG C1001 102.741 151.408 200.891 1.00103.19 H
HETATM 5355 HO3 NAG C1001 103.344 151.650 197.028 1.00103.19 H
HETATM 5356 HO6 NAG C1001 108.577 151.122 199.297 1.00103.19 H
HETATM 5357 C1 NAG C1002 104.131 149.176 195.908 1.00101.43 C
HETATM 5358 C2 NAG C1002 103.265 147.953 196.088 1.00101.43 C
HETATM 5359 C3 NAG C1002 102.384 147.768 194.867 1.00101.43 C
HETATM 5360 C4 NAG C1002 102.001 149.115 194.267 1.00101.43 C
HETATM 5361 C5 NAG C1002 102.061 150.259 195.285 1.00101.43 C
HETATM 5362 C6 NAG C1002 101.001 150.154 196.357 1.00101.43 C
HETATM 5363 C7 NAG C1002 104.976 146.680 197.302 1.00101.43 C
HETATM 5364 C8 NAG C1002 105.722 145.384 197.398 1.00101.43 C
HETATM 5365 N2 NAG C1002 104.076 146.768 196.317 1.00101.43 N
HETATM 5366 O3 NAG C1002 101.214 147.041 195.225 1.00101.43 O
HETATM 5367 O4 NAG C1002 102.857 149.415 193.171 1.00101.43 O
HETATM 5368 O5 NAG C1002 103.329 150.333 195.963 1.00101.43 O
HETATM 5369 O6 NAG C1002 100.348 151.399 196.564 1.00101.43 O
HETATM 5370 O7 NAG C1002 105.180 147.606 198.079 1.00101.43 O
HETATM 5371 H1 NAG C1002 104.572 149.130 195.040 1.00101.43 H
HETATM 5372 H2 NAG C1002 102.691 148.092 196.863 1.00101.43 H
HETATM 5373 H3 NAG C1002 102.883 147.263 194.198 1.00101.43 H
HETATM 5374 H4 NAG C1002 101.088 149.050 193.932 1.00101.43 H
HETATM 5375 H5 NAG C1002 101.925 151.096 194.803 1.00101.43 H
HETATM 5376 H61 NAG C1002 101.421 149.873 197.190 1.00101.43 H
HETATM 5377 H62 NAG C1002 100.341 149.485 196.092 1.00101.43 H
HETATM 5378 H81 NAG C1002 106.560 145.453 196.903 1.00101.43 H
HETATM 5379 H82 NAG C1002 105.179 144.667 197.019 1.00101.43 H
HETATM 5380 H83 NAG C1002 105.913 145.188 198.335 1.00101.43 H
HETATM 5381 HN2 NAG C1002 103.958 146.051 195.766 1.00101.43 H
HETATM 5382 HO4 NAG C1002 102.418 149.267 192.414 1.00101.43 H
HETATM 5383 HO6 NAG C1002 100.826 152.048 196.192 1.00101.43 H
HETATM 5384 C1 NAG C1003 102.460 144.767 193.845 1.00100.02 C
HETATM 5385 C2 NAG C1003 102.121 145.003 192.379 1.00100.02 C

HETATM 5386 C3 NAG C1003 101.672 143.698 191.724 1.00100.02 C
HETATM 5387 C4 NAG C1003 102.712 142.609 191.948 1.00100.02 C
HETATM 5388 C5 NAG C1003 103.032 142.487 193.434 1.00100.02 C
HETATM 5389 C6 NAG C1003 104.150 141.513 193.720 1.00100.02 C
HETATM 5390 C7 NAG C1003 101.274 147.152 191.545 1.00100.02 C
HETATM 5391 C8 NAG C1003 100.107 148.091 191.506 1.00100.02 C
HETATM 5392 N2 NAG C1003 101.096 146.023 192.240 1.00100.02 N
HETATM 5393 O3 NAG C1003 101.479 143.901 190.329 1.00100.02 O
HETATM 5394 O4 NAG C1003 102.223 141.362 191.468 1.00100.02 O
HETATM 5395 O5 NAG C1003 103.453 143.758 193.949 1.00100.02 O
HETATM 5396 O6 NAG C1003 104.884 141.899 194.873 1.00100.02 O
HETATM 5397 O7 NAG C1003 102.328 147.402 190.970 1.00100.02 O
HETATM 5398 H1 NAG C1003 101.656 144.484 194.318 1.00100.02 H
HETATM 5399 H2 NAG C1003 102.930 145.307 191.928 1.00100.02 H
HETATM 5400 H3 NAG C1003 100.828 143.418 192.123 1.00100.02 H
HETATM 5401 H4 NAG C1003 103.526 142.836 191.462 1.00100.02 H
HETATM 5402 H5 NAG C1003 102.229 142.202 193.909 1.00100.02 H
HETATM 5403 H61 NAG C1003 104.749 141.485 192.950 1.00100.02 H
HETATM 5404 H62 NAG C1003 103.771 140.625 193.861 1.00100.02 H
HETATM 5405 H81 NAG C1003 99.752 148.209 192.407 1.00100.02 H
HETATM 5406 H82 NAG C1003 99.413 147.721 190.928 1.00100.02 H
HETATM 5407 H83 NAG C1003 100.397 148.954 191.157 1.00100.02 H
HETATM 5408 HN2 NAG C1003 100.292 145.887 192.649 1.00100.02 H
HETATM 5409 HO3 NAG C1003 101.510 143.118 189.913 1.00100.02 H
HETATM 5410 HO4 NAG C1003 102.909 140.838 191.257 1.00100.02 H
HETATM 5411 HO6 NAG C1003 104.585 142.683 195.165 1.00100.02 H
HETATM 5412 C1 NAG C1004 106.333 137.274 163.021 1.00 83.30 C
HETATM 5413 C2 NAG C1004 104.948 137.791 162.685 1.00 83.30 C
HETATM 5414 C3 NAG C1004 104.469 137.177 161.379 1.00 83.30 C
HETATM 5415 C4 NAG C1004 105.488 137.432 160.278 1.00 83.30 C
HETATM 5416 C5 NAG C1004 106.879 136.983 160.721 1.00 83.30 C
HETATM 5417 C6 NAG C1004 107.959 137.379 159.744 1.00 83.30 C
HETATM 5418 C7 NAG C1004 103.925 138.262 164.858 1.00 83.30 C
HETATM 5419 C8 NAG C1004 102.908 137.830 165.864 1.00 83.30 C

HETATM 5420 N2 NAG C1004 104.012 137.510 163.759 1.00 83.30 N
HETATM 5421 O3 NAG C1004 103.214 137.747 161.023 1.00 83.30 O
HETATM 5422 O4 NAG C1004 105.117 136.718 159.105 1.00 83.30 O
HETATM 5423 O5 NAG C1004 107.223 137.593 161.973 1.00 83.30 O
HETATM 5424 O6 NAG C1004 108.499 136.251 159.072 1.00 83.30 O
HETATM 5425 O7 NAG C1004 104.637 139.244 165.032 1.00 83.30 O
HETATM 5426 H1 NAG C1004 106.292 136.306 163.124 1.00 83.30 H
HETATM 5427 H2 NAG C1004 105.001 138.758 162.567 1.00 83.30 H
HETATM 5428 H3 NAG C1004 104.364 136.215 161.500 1.00 83.30 H
HETATM 5429 H4 NAG C1004 105.509 138.387 160.081 1.00 83.30 H
HETATM 5430 H5 NAG C1004 106.877 136.015 160.834 1.00 83.30 H
HETATM 5431 H61 NAG C1004 108.672 137.833 160.232 1.00 83.30 H
HETATM 5432 H62 NAG C1004 107.580 137.996 159.091 1.00 83.30 H
HETATM 5433 H81 NAG C1004 103.279 137.108 166.406 1.00 83.30 H
HETATM 5434 H82 NAG C1004 102.115 137.511 165.395 1.00 83.30 H
HETATM 5435 H83 NAG C1004 102.672 138.588 166.430 1.00 83.30 H
HETATM 5436 HN2 NAG C1004 103.459 136.789 163.679 1.00 83.30 H
HETATM 5437 HO3 NAG C1004 103.334 138.592 160.781 1.00 83.30 H
HETATM 5438 HO4 NAG C1004 104.329 136.330 159.235 1.00 83.30 H
HETATM 5439 HO6 NAG C1004 107.965 135.551 159.191 1.00 83.30 H
HETATM 5440 C1 NAG C1005 111.254 125.474 162.951 1.00122.28 C
HETATM 5441 C2 NAG C1005 111.344 125.583 164.466 1.00122.28 C
HETATM 5442 C3 NAG C1005 110.477 124.511 165.117 1.00122.28 C
HETATM 5443 C4 NAG C1005 109.049 124.614 164.603 1.00122.28 C
HETATM 5444 C5 NAG C1005 109.031 124.568 163.077 1.00122.28 C
HETATM 5445 C6 NAG C1005 107.656 124.813 162.500 1.00122.28 C
HETATM 5446 C7 NAG C1005 113.088 125.690 166.189 1.00122.28 C
HETATM 5447 C8 NAG C1005 114.550 125.548 166.482 1.00122.28 C
HETATM 5448 N2 NAG C1005 112.721 125.481 164.921 1.00122.28 N
HETATM 5449 O3 NAG C1005 110.494 124.665 166.532 1.00122.28 O
HETATM 5450 O4 NAG C1005 108.266 123.543 165.117 1.00122.28 O
HETATM 5451 O5 NAG C1005 109.890 125.587 162.541 1.00122.28 O
HETATM 5452 O6 NAG C1005 107.447 124.057 161.315 1.00122.28 O
HETATM 5453 O7 NAG C1005 112.275 125.976 167.063 1.00122.28 O

HETATM 5454 H1 NAG C1005 111.603 124.607 162.673 1.00122.28 H
HETATM 5455 H2 NAG C1005 110.992 126.456 164.726 1.00122.28 H
HETATM 5456 H3 NAG C1005 110.833 123.632 164.887 1.00122.28 H
HETATM 5457 H4 NAG C1005 108.664 125.460 164.898 1.00122.28 H
HETATM 5458 H5 NAG C1005 109.351 123.693 162.785 1.00122.28 H
HETATM 5459 H61 NAG C1005 107.563 125.763 162.296 1.00122.28 H
HETATM 5460 H62 NAG C1005 106.985 124.560 163.162 1.00122.28 H
HETATM 5461 H81 NAG C1005 114.823 124.625 166.325 1.00122.28 H
HETATM 5462 H82 NAG C1005 114.718 125.784 167.414 1.00122.28 H
HETATM 5463 H83 NAG C1005 115.055 126.145 165.897 1.00122.28 H
HETATM 5464 HN2 NAG C1005 113.365 125.274 164.310 1.00122.28 H
HETATM 5465 HO3 NAG C1005 110.457 123.865 166.916 1.00122.28 H
HETATM 5466 HO4 NAG C1005 107.627 123.868 165.641 1.00122.28 H
HETATM 5467 HO6 NAG C1005 107.594 123.198 161.485 1.00122.28 H
HETATM 5468 C1 NAG C1007 121.980 135.399 130.477 1.00138.87 C
HETATM 5469 C2 NAG C1007 121.475 133.964 130.636 1.00138.87 C
HETATM 5470 C3 NAG C1007 120.387 133.664 129.605 1.00138.87 C
HETATM 5471 C4 NAG C1007 119.300 134.729 129.647 1.00138.87 C
HETATM 5472 C5 NAG C1007 119.915 136.116 129.519 1.00138.87 C
HETATM 5473 C6 NAG C1007 118.899 137.226 129.661 1.00138.87 C
HETATM 5474 C7 NAG C1007 122.416 131.693 130.507 1.00138.87 C
HETATM 5475 C8 NAG C1007 123.668 130.883 130.371 1.00138.87 C
HETATM 5476 N2 NAG C1007 122.574 133.021 130.511 1.00138.87 N
HETATM 5477 O3 NAG C1007 119.806 132.392 129.872 1.00138.87 O
HETATM 5478 O4 NAG C1007 118.378 134.523 128.581 1.00138.87 O
HETATM 5479 O5 NAG C1007 120.885 136.304 130.558 1.00138.87 O
HETATM 5480 O6 NAG C1007 118.817 137.684 131.003 1.00138.87 O
HETATM 5481 O7 NAG C1007 121.311 131.169 130.606 1.00138.87 O
HETATM 5482 H1 NAG C1007 122.414 135.493 129.609 1.00138.87 H
HETATM 5483 H2 NAG C1007 121.084 133.871 131.525 1.00138.87 H
HETATM 5484 H3 NAG C1007 120.788 133.652 128.715 1.00138.87 H
HETATM 5485 H4 NAG C1007 118.825 134.665 130.497 1.00138.87 H
HETATM 5486 H5 NAG C1007 120.356 136.190 128.651 1.00138.87 H
HETATM 5487 H61 NAG C1007 118.025 136.892 129.384 1.00138.87 H

HETATM 5488 H62 NAG C1007 119.154 137.968 129.081 1.00138.87 H
HETATM 5489 H81 NAG C1007 124.023 130.979 129.466 1.00138.87 H
HETATM 5490 H82 NAG C1007 123.469 129.944 130.546 1.00138.87 H
HETATM 5491 H83 NAG C1007 124.331 131.201 131.013 1.00138.87 H
HETATM 5492 HN2 NAG C1007 123.420 133.353 130.435 1.00138.87 H
HETATM 5493 HO4 NAG C1007 118.638 133.828 128.096 1.00138.87 H
HETATM 5494 HO6 NAG C1007 118.495 138.512 131.015 1.00138.87 H
HETATM 5495 C1 NAG C1008 118.535 131.943 130.146 1.00142.45 C
HETATM 5496 C2 NAG C1008 117.151 131.997 130.795 1.00142.45 C
HETATM 5497 C3 NAG C1008 116.180 131.096 130.039 1.00142.45 C
HETATM 5498 C4 NAG C1008 116.164 131.461 128.562 1.00142.45 C
HETATM 5499 C5 NAG C1008 117.582 131.412 128.003 1.00142.45 C
HETATM 5500 C6 NAG C1008 117.661 131.865 126.566 1.00142.45 C
HETATM 5501 C7 NAG C1008 117.958 132.262 133.099 1.00142.45 C
HETATM 5502 C8 NAG C1008 117.901 131.729 134.500 1.00142.45 C
HETATM 5503 N2 NAG C1008 117.213 131.616 132.197 1.00142.45 N
HETATM 5504 O3 NAG C1008 114.877 131.227 130.596 1.00142.45 O
HETATM 5505 O4 NAG C1008 115.343 130.554 127.835 1.00142.45 O
HETATM 5506 O5 NAG C1008 118.432 132.286 128.760 1.00142.45 O
HETATM 5507 O6 NAG C1008 117.619 130.763 125.671 1.00142.45 O
HETATM 5508 O7 NAG C1008 118.649 133.230 132.799 1.00142.45 O
HETATM 5509 H1 NAG C1008 118.892 131.038 130.224 1.00142.45 H
HETATM 5510 H2 NAG C1008 116.822 132.915 130.737 1.00142.45 H
HETATM 5511 H3 NAG C1008 116.471 130.168 130.133 1.00142.45 H
HETATM 5512 H4 NAG C1008 115.815 132.365 128.454 1.00142.45 H
HETATM 5513 H5 NAG C1008 117.922 130.500 128.074 1.00142.45 H
HETATM 5514 H61 NAG C1008 118.493 132.360 126.434 1.00142.45 H
HETATM 5515 H62 NAG C1008 116.906 132.456 126.383 1.00142.45 H
HETATM 5516 H81 NAG C1008 118.458 130.932 134.569 1.00142.45 H
HETATM 5517 H82 NAG C1008 116.978 131.499 134.722 1.00142.45 H
HETATM 5518 H83 NAG C1008 118.228 132.408 135.120 1.00142.45 H
HETATM 5519 HN2 NAG C1008 116.715 130.904 132.474 1.00142.45 H
HETATM 5520 HO3 NAG C1008 114.855 130.825 131.388 1.00142.45 H
HETATM 5521 HO4 NAG C1008 115.118 130.919 127.057 1.00142.45 H

HETATM 5522 HO6 NAG C1008 117.483 130.014 126.128 1.00142.45 H
HETATM 5523 C1 NAG C1009 126.109 143.264 120.771 1.00114.80 C
HETATM 5524 C2 NAG C1009 125.875 141.766 120.900 1.00114.80 C
HETATM 5525 C3 NAG C1009 125.251 141.221 119.621 1.00114.80 C
HETATM 5526 C4 NAG C1009 123.994 142.006 119.270 1.00114.80 C
HETATM 5527 C5 NAG C1009 124.283 143.505 119.248 1.00114.80 C
HETATM 5528 C6 NAG C1009 123.036 144.340 119.076 1.00114.80 C
HETATM 5529 C7 NAG C1009 127.536 140.859 122.458 1.00114.80 C
HETATM 5530 C8 NAG C1009 128.829 140.120 122.597 1.00114.80 C
HETATM 5531 N2 NAG C1009 127.110 141.066 121.208 1.00114.80 N
HETATM 5532 O3 NAG C1009 124.931 139.847 119.802 1.00114.80 O
HETATM 5533 O4 NAG C1009 123.515 141.607 117.992 1.00114.80 O
HETATM 5534 O5 NAG C1009 124.880 143.914 120.488 1.00114.80 O
HETATM 5535 O6 NAG C1009 122.623 144.913 120.309 1.00114.80 O
HETATM 5536 O7 NAG C1009 126.906 141.257 123.432 1.00114.80 O
HETATM 5537 H1 NAG C1009 126.736 143.432 120.042 1.00114.80 H
HETATM 5538 H2 NAG C1009 125.243 141.618 121.628 1.00114.80 H
HETATM 5539 H3 NAG C1009 125.896 141.303 118.893 1.00114.80 H
HETATM 5540 H4 NAG C1009 123.308 141.821 119.939 1.00114.80 H
HETATM 5541 H5 NAG C1009 124.901 143.699 118.519 1.00114.80 H
HETATM 5542 H61 NAG C1009 122.319 143.775 118.731 1.00114.80 H
HETATM 5543 H62 NAG C1009 123.217 145.054 118.436 1.00114.80 H
HETATM 5544 H81 NAG C1009 129.571 140.730 122.422 1.00114.80 H
HETATM 5545 H82 NAG C1009 128.852 139.387 121.954 1.00114.80 H
HETATM 5546 H83 NAG C1009 128.902 139.766 123.503 1.00114.80 H
HETATM 5547 HN2 NAG C1009 127.616 140.751 120.518 1.00114.80 H
HETATM 5548 HO3 NAG C1009 124.973 139.430 119.019 1.00114.80 H
HETATM 5549 HO4 NAG C1009 123.430 142.322 117.473 1.00114.80 H
HETATM 5550 HO6 NAG C1009 123.295 144.876 120.888 1.00114.80 H
HETATM 5551 C1 NAG C1010 124.200 178.245 175.822 1.00 67.96 C
HETATM 5552 C2 NAG C1010 124.303 179.593 176.503 1.00 67.96 C
HETATM 5553 C3 NAG C1010 122.925 180.224 176.608 1.00 67.96 C
HETATM 5554 C4 NAG C1010 122.273 180.287 175.234 1.00 67.96 C
HETATM 5555 C5 NAG C1010 122.319 178.923 174.546 1.00 67.96 C

```
HETATM 5556  C6  NAG C1010     121.880 178.982 173.103  1.00 67.96           C
HETATM 5557  C7  NAG C1010     125.302 180.530 178.537  1.00 67.96           C
HETATM 5558  C8  NAG C1010     125.920 180.224 179.867  1.00 67.96           C
HETATM 5559  N2  NAG C1010     124.917 179.474 177.814  1.00 67.96           N
HETATM 5560  O3  NAG C1010     123.041 181.533 177.151  1.00 67.96           O
HETATM 5561  O4  NAG C1010     120.917 180.698 175.363  1.00 67.96           O
HETATM 5562  O5  NAG C1010     123.658 178.406 174.540  1.00 67.96           O
HETATM 5563  O6  NAG C1010     122.260 177.808 172.399  1.00 67.96           O
HETATM 5564  O7  NAG C1010     125.153 181.679 178.138  1.00 67.96           O
HETATM 5565  H1  NAG C1010     123.614 177.667 176.342  1.00 67.96           H
HETATM 5566  H2  NAG C1010     124.861 180.171 175.950  1.00 67.96           H
HETATM 5567  H3  NAG C1010     122.373 179.680 177.199  1.00 67.96           H
HETATM 5568  H4  NAG C1010     122.754 180.934 174.685  1.00 67.96           H
HETATM 5569  H5  NAG C1010     121.748 178.301 175.033  1.00 67.96           H
HETATM 5570  H61 NAG C1010     122.300 179.756 172.680  1.00 67.96           H
HETATM 5571  H62 NAG C1010     120.912 179.085 173.064  1.00 67.96           H
HETATM 5572  H81 NAG C1010     125.464 179.462 180.272  1.00 67.96           H
HETATM 5573  H82 NAG C1010     125.832 180.999 180.453  1.00 67.96           H
HETATM 5574  H83 NAG C1010     126.865 180.014 179.747  1.00 67.96           H
HETATM 5575  HN2 NAG C1010     125.050 178.639 178.151  1.00 67.96           H
HETATM 5576  HO3 NAG C1010     123.022 181.484 178.038  1.00 67.96           H
HETATM 5577  HO4 NAG C1010     120.659 181.108 174.618  1.00 67.96           H
HETATM 5578  HO6 NAG C1010     122.933 178.000 171.852  1.00 67.96           H
HETATM 5579  C1  NAG C1011     118.503 171.767 174.427  1.00 74.66           C
HETATM 5580  C2  NAG C1011     117.453 172.770 173.979  1.00 74.66           C
HETATM 5581  C3  NAG C1011     116.792 172.293 172.694  1.00 74.66           C
HETATM 5582  C4  NAG C1011     117.849 172.008 171.636  1.00 74.66           C
HETATM 5583  C5  NAG C1011     118.917 171.065 172.186  1.00 74.66           C
HETATM 5584  C6  NAG C1011     120.076 170.873 171.237  1.00 74.66           C
HETATM 5585  C7  NAG C1011     116.603 173.908 175.977  1.00 74.66           C
HETATM 5586  C8  NAG C1011     115.483 174.004 176.967  1.00 74.66           C
HETATM 5587  N2  NAG C1011     116.459 172.989 175.017  1.00 74.66           N
HETATM 5588  O3  NAG C1011     115.891 173.289 172.225  1.00 74.66           O
HETATM 5589  O4  NAG C1011     117.240 171.416 170.494  1.00 74.66           O
```

```
HETATM 5590  O5  NAG C1011     119.465 171.594 173.401  1.00 74.66           O
HETATM 5591  O6  NAG C1011     120.824 169.708 171.557  1.00 74.66           O
HETATM 5592  O7  NAG C1011     117.593 174.629 176.044  1.00 74.66           O
HETATM 5593  H1  NAG C1011     118.067 170.913 174.602  1.00 74.66           H
HETATM 5594  H2  NAG C1011     117.900 173.617 173.790  1.00 74.66           H
HETATM 5595  H3  NAG C1011     116.296 171.473 172.878  1.00 74.66           H
HETATM 5596  H4  NAG C1011     118.270 172.849 171.376  1.00 74.66           H
HETATM 5597  H5  NAG C1011     118.510 170.199 172.376  1.00 74.66           H
HETATM 5598  H61 NAG C1011     120.658 171.654 171.289  1.00 74.66           H
HETATM 5599  H62 NAG C1011     119.733 170.794 170.327  1.00 74.66           H
HETATM 5600  H81 NAG C1011     115.403 173.158 177.447  1.00 74.66           H
HETATM 5601  H82 NAG C1011     114.649 174.194 176.496  1.00 74.66           H
HETATM 5602  H83 NAG C1011     115.672 174.721 177.601  1.00 74.66           H
HETATM 5603  HN2 NAG C1011     115.704 172.478 175.010  1.00 74.66           H
HETATM 5604  HO3 NAG C1011     115.500 173.684 172.918  1.00 74.66           H
HETATM 5605  HO4 NAG C1011     116.362 171.538 170.536  1.00 74.66           H
HETATM 5606  HO6 NAG C1011     120.374 169.224 172.150  1.00 74.66           H
HETATM 5607  C1  NAG C1012     109.471 149.909 150.723  1.00131.36           C
HETATM 5608  C2  NAG C1012     108.013 149.469 150.619  1.00131.36           C
HETATM 5609  C3  NAG C1012     107.177 150.565 149.964  1.00131.36           C
HETATM 5610  C4  NAG C1012     107.365 151.885 150.698  1.00131.36           C
HETATM 5611  C5  NAG C1012     108.849 152.221 150.813  1.00131.36           C
HETATM 5612  C6  NAG C1012     109.111 153.451 151.650  1.00131.36           C
HETATM 5613  C7  NAG C1012     106.741 147.564 149.735  1.00131.36           C
HETATM 5614  C8  NAG C1012     106.804 146.297 148.940  1.00131.36           C
HETATM 5615  N2  NAG C1012     107.896 148.223 149.878  1.00131.36           N
HETATM 5616  O3  NAG C1012     105.803 150.196 149.983  1.00131.36           O
HETATM 5617  O4  NAG C1012     106.700 152.927 149.993  1.00131.36           O
HETATM 5618  O5  NAG C1012     109.550 151.139 151.442  1.00131.36           O
HETATM 5619  O6  NAG C1012     108.559 153.317 152.952  1.00131.36           O
HETATM 5620  O7  NAG C1012     105.694 147.976 150.222  1.00131.36           O
HETATM 5621  H1  NAG C1012     109.837 150.036 149.828  1.00131.36           H
HETATM 5622  H2  NAG C1012     107.672 149.327 151.522  1.00131.36           H
HETATM 5623  H3  NAG C1012     107.463 150.675 149.037  1.00131.36           H
```

HETATM 5624 H4 NAG C1012 106.984 151.810 151.594 1.00131.36 H
HETATM 5625 H5 NAG C1012 109.214 152.360 149.918 1.00131.36 H
HETATM 5626 H61 NAG C1012 108.710 154.226 151.212 1.00131.36 H
HETATM 5627 H62 NAG C1012 110.073 153.587 151.724 1.00131.36 H
HETATM 5628 H81 NAG C1012 107.524 145.735 149.283 1.00131.36 H
HETATM 5629 H82 NAG C1012 106.974 146.509 148.002 1.00131.36 H
HETATM 5630 H83 NAG C1012 105.954 145.824 149.017 1.00131.36 H
HETATM 5631 HN2 NAG C1012 108.646 147.873 149.495 1.00131.36 H
HETATM 5632 HO3 NAG C1012 105.310 150.882 149.712 1.00131.36 H
HETATM 5633 HO4 NAG C1012 106.240 152.579 149.319 1.00131.36 H
HETATM 5634 HO6 NAG C1012 108.800 154.012 153.450 1.00131.36 H
HETATM 5635 C1 NAG C1013 128.257 163.217 121.874 1.00111.93 C
HETATM 5636 C2 NAG C1013 127.372 164.225 122.597 1.00111.93 C
HETATM 5637 C3 NAG C1013 126.994 165.365 121.656 1.00111.93 C
HETATM 5638 C4 NAG C1013 128.242 165.975 121.031 1.00111.93 C
HETATM 5639 C5 NAG C1013 129.109 164.890 120.398 1.00111.93 C
HETATM 5640 C6 NAG C1013 130.433 165.418 119.899 1.00111.93 C
HETATM 5641 C7 NAG C1013 126.152 162.959 124.309 1.00111.93 C
HETATM 5642 C8 NAG C1013 124.839 162.349 124.700 1.00111.93 C
HETATM 5643 N2 NAG C1013 126.178 163.583 123.128 1.00111.93 N
HETATM 5644 O3 NAG C1013 126.284 166.361 122.383 1.00111.93 O
HETATM 5645 O4 NAG C1013 127.873 166.909 120.024 1.00111.93 O
HETATM 5646 O5 NAG C1013 129.410 163.874 121.366 1.00111.93 O
HETATM 5647 O6 NAG C1013 130.394 166.826 119.715 1.00111.93 O
HETATM 5648 O7 NAG C1013 127.141 162.888 125.030 1.00111.93 O
HETATM 5649 H1 NAG C1013 127.758 162.827 121.132 1.00111.93 H
HETATM 5650 H2 NAG C1013 127.879 164.602 123.340 1.00111.93 H
HETATM 5651 H3 NAG C1013 126.422 165.016 120.946 1.00111.93 H
HETATM 5652 H4 NAG C1013 128.756 166.432 121.722 1.00111.93 H
HETATM 5653 H5 NAG C1013 128.620 164.488 119.655 1.00111.93 H
HETATM 5654 H61 NAG C1013 130.646 164.989 119.049 1.00111.93 H
HETATM 5655 H62 NAG C1013 131.126 165.201 120.552 1.00111.93 H
HETATM 5656 H81 NAG C1013 124.616 161.631 124.078 1.00111.93 H
HETATM 5657 H82 NAG C1013 124.144 163.033 124.670 1.00111.93 H

HETATM 5658 H83 NAG C1013 124.905 161.987 125.604 1.00111.93 H
HETATM 5659 HN2 NAG C1013 125.414 163.605 122.631 1.00111.93 H
HETATM 5660 HO3 NAG C1013 126.855 166.842 122.864 1.00111.93 H
HETATM 5661 HO4 NAG C1013 127.922 166.516 119.228 1.00111.93 H
HETATM 5662 HO6 NAG C1013 131.210 167.122 119.532 1.00111.93 H
HETATM 5663 C1 NAG C1014 144.398 133.702 123.540 1.00129.17 C
HETATM 5664 C2 NAG C1014 145.451 133.261 122.530 1.00129.17 C
HETATM 5665 C3 NAG C1014 144.866 133.264 121.121 1.00129.17 C
HETATM 5666 C4 NAG C1014 143.583 132.444 121.072 1.00129.17 C
HETATM 5667 C5 NAG C1014 142.613 132.919 122.150 1.00129.17 C
HETATM 5668 C6 NAG C1014 141.365 132.070 122.243 1.00129.17 C
HETATM 5669 C7 NAG C1014 147.873 133.662 122.439 1.00129.17 C
HETATM 5670 C8 NAG C1014 148.964 134.687 122.540 1.00129.17 C
HETATM 5671 N2 NAG C1014 146.625 134.116 122.598 1.00129.17 N
HETATM 5672 O3 NAG C1014 145.819 132.726 120.212 1.00129.17 O
HETATM 5673 O4 NAG C1014 142.970 132.580 119.795 1.00129.17 O
HETATM 5674 O5 NAG C1014 143.248 132.863 123.435 1.00129.17 O
HETATM 5675 O6 NAG C1014 141.246 131.457 123.520 1.00129.17 O
HETATM 5676 O7 NAG C1014 148.111 132.478 122.221 1.00129.17 O
HETATM 5677 H1 NAG C1014 144.143 134.624 123.347 1.00129.17 H
HETATM 5678 H2 NAG C1014 145.716 132.346 122.745 1.00129.17 H
HETATM 5679 H3 NAG C1014 144.664 134.184 120.864 1.00129.17 H
HETATM 5680 H4 NAG C1014 143.798 131.504 121.223 1.00129.17 H
HETATM 5681 H5 NAG C1014 142.354 133.841 121.960 1.00129.17 H
HETATM 5682 H61 NAG C1014 141.396 131.375 121.558 1.00129.17 H
HETATM 5683 H62 NAG C1014 140.583 132.634 122.089 1.00129.17 H
HETATM 5684 H81 NAG C1014 148.590 135.536 122.842 1.00129.17 H
HETATM 5685 H82 NAG C1014 149.378 134.807 121.664 1.00129.17 H
HETATM 5686 H83 NAG C1014 149.638 134.385 123.178 1.00129.17 H
HETATM 5687 HN2 NAG C1014 146.504 135.006 122.758 1.00129.17 H
HETATM 5688 HO3 NAG C1014 146.408 132.233 120.658 1.00129.17 H
HETATM 5689 HO4 NAG C1014 143.592 132.538 119.162 1.00129.17 H
HETATM 5690 HO6 NAG C1014 140.795 130.697 123.443 1.00129.17 H
HETATM 5691 C1 NAG C1015 106.745 146.340 157.464 1.00 93.55 C

HETATM 5692 C2 NAG C1015 105.790 145.427 158.228 1.00 93.55 C
HETATM 5693 C3 NAG C1015 104.365 145.609 157.715 1.00 93.55 C
HETATM 5694 C4 NAG C1015 103.970 147.080 157.753 1.00 93.55 C
HETATM 5695 C5 NAG C1015 105.009 147.924 157.020 1.00 93.55 C
HETATM 5696 C6 NAG C1015 104.751 149.408 157.131 1.00 93.55 C
HETATM 5697 C7 NAG C1015 105.816 143.090 158.980 1.00 93.55 C
HETATM 5698 C8 NAG C1015 106.338 141.711 158.715 1.00 93.55 C
HETATM 5699 N2 NAG C1015 106.201 144.038 158.119 1.00 93.55 N
HETATM 5700 O3 NAG C1015 103.469 144.846 158.515 1.00 93.55 O
HETATM 5701 O4 NAG C1015 102.699 147.257 157.138 1.00 93.55 O
HETATM 5702 O5 NAG C1015 106.310 147.691 157.578 1.00 93.55 O
HETATM 5703 O6 NAG C1015 105.796 150.063 157.835 1.00 93.55 O
HETATM 5704 O7 NAG C1015 105.075 143.336 159.926 1.00 93.55 O
HETATM 5705 H1 NAG C1015 106.751 146.083 156.523 1.00 93.55 H
HETATM 5706 H2 NAG C1015 105.802 145.683 159.170 1.00 93.55 H
HETATM 5707 H3 NAG C1015 104.316 145.292 156.793 1.00 93.55 H
HETATM 5708 H4 NAG C1015 103.917 147.372 158.682 1.00 93.55 H
HETATM 5709 H5 NAG C1015 105.021 147.672 156.077 1.00 93.55 H
HETATM 5710 H61 NAG C1015 103.911 149.551 157.606 1.00 93.55 H
HETATM 5711 H62 NAG C1015 104.680 149.788 156.234 1.00 93.55 H
HETATM 5712 H81 NAG C1015 107.146 141.769 158.172 1.00 93.55 H
HETATM 5713 H82 NAG C1015 105.660 141.193 158.242 1.00 93.55 H
HETATM 5714 H83 NAG C1015 106.548 141.276 159.562 1.00 93.55 H
HETATM 5715 HN2 NAG C1015 106.755 143.802 157.433 1.00 93.55 H
HETATM 5716 HO3 NAG C1015 102.770 144.600 158.025 1.00 93.55 H
HETATM 5717 HO4 NAG C1015 102.774 147.134 156.261 1.00 93.55 H
HETATM 5718 HO6 NAG C1015 105.506 150.302 158.638 1.00 93.55 H
HETATM 5719 C1 PFE C1101 174.460 146.032 221.765 1.00100.14 C
HETATM 5720 C13 PFE C1101 172.018 150.381 223.301 1.00100.14 C
HETATM 5721 C18 PFE C1101 171.278 144.237 221.560 1.00100.14 C
HETATM 5722 C2 PFE C1101 173.177 145.582 222.454 1.00100.14 C
HETATM 5723 C21 PFE C1101 169.451 143.220 220.177 1.00100.14 C
HETATM 5724 C22 PFE C1101 168.381 143.660 219.410 1.00100.14 C
HETATM 5725 C23 PFE C1101 167.315 142.820 219.150 1.00100.14 C

HETATM 5726 C24 PFE C1101 167.303 141.528 219.654 1.00100.14 C
HETATM 5727 C25 PFE C1101 168.378 141.083 220.409 1.00100.14 C
HETATM 5728 C26 PFE C1101 169.445 141.922 220.668 1.00100.14 C
HETATM 5729 C28 PFE C1101 165.230 140.813 218.491 1.00100.14 C
HETATM 5730 C3 PFE C1101 172.630 146.651 223.377 1.00100.14 C
HETATM 5731 C30 PFE C1101 164.180 139.769 218.555 1.00100.14 C
HETATM 5732 C31 PFE C1101 163.099 139.737 217.735 1.00100.14 C
HETATM 5733 C33 PFE C1101 163.228 137.985 219.335 1.00100.14 C
HETATM 5734 C4 PFE C1101 172.577 147.974 222.955 1.00100.14 C
HETATM 5735 C5 PFE C1101 172.083 148.970 223.787 1.00100.14 C
HETATM 5736 C6 PFE C1101 171.637 148.654 225.064 1.00100.14 C
HETATM 5737 C7 PFE C1101 171.686 147.335 225.496 1.00100.14 C
HETATM 5738 C8 PFE C1101 172.179 146.344 224.655 1.00100.14 C
HETATM 5739 C9 PFE C1101 171.204 146.979 226.865 1.00100.14 C
HETATM 5740 F10 PFE C1101 171.446 147.934 227.755 1.00100.14 F
HETATM 5741 F11 PFE C1101 169.895 146.762 226.906 1.00100.14 F
HETATM 5742 F12 PFE C1101 171.776 145.879 227.340 1.00100.14 F
HETATM 5743 F14 PFE C1101 172.468 151.253 224.198 1.00100.14 F
HETATM 5744 F15 PFE C1101 172.737 150.579 222.202 1.00100.14 F
HETATM 5745 F16 PFE C1101 170.781 150.763 223.002 1.00100.14 F
HETATM 5746 N17 PFE C1101 172.197 145.198 221.435 1.00100.14 N
HETATM 5747 N20 PFE C1101 170.518 144.105 220.454 1.00100.14 N
HETATM 5748 N27 PFE C1101 166.197 140.679 219.422 1.00100.14 N
HETATM 5749 N34 PFE C1101 164.259 138.752 219.487 1.00100.14 N
HETATM 5750 O29 PFE C1101 165.194 141.709 217.653 1.00100.14 O
HETATM 5751 S19 PFE C1101 171.097 143.323 222.954 1.00100.14 S
HETATM 5752 S32 PFE C1101 162.118 138.401 218.107 1.00100.14 S
HETATM 5753 HC2 PFE C1101 173.413 144.699 223.046 1.00100.14 H
HETATM 5754 HC4 PFE C1101 172.927 148.239 221.958 1.00100.14 H
HETATM 5755 HC6 PFE C1101 171.255 149.431 225.723 1.00100.14 H
HETATM 5756 HC8 PFE C1101 172.220 145.312 224.997 1.00100.14 H
HETATM 5757 HC1A PFE C1101 175.195 146.361 222.498 1.00100.14 H
HETATM 5758 HC1B PFE C1101 174.916 145.218 221.204 1.00100.14 H
HETATM 5759 HC1C PFE C1101 174.314 146.851 221.062 1.00100.14 H

HETATM	5760	HC22	PFE	C1101	168.376 144.666 218.996	1.00100.14 H
HETATM	5761	HC23	PFE	C1101	166.505 143.206 218.535	1.00100.14 H
HETATM	5762	HC25	PFE	C1101	168.401 140.070 220.806	1.00100.14 H
HETATM	5763	HC26	PFE	C1101	170.281 141.557 221.260	1.00100.14 H
HETATM	5764	HC31	PFE	C1101	162.854 140.446 216.946	1.00100.14 H
HETATM	5765	HC33	PFE	C1101	163.067 137.114 219.967	1.00100.14 H
HETATM	5766	HN17	PFE	C1101	172.263 145.744 220.583	1.00100.14 H
HETATM	5767	HN20	PFE	C1101	170.682 144.715 219.660	1.00100.14 H
HETATM	5768	HN27	PFE	C1101	166.155 139.882 220.047	1.00100.14 H

CLAIMS

1. A mutant of a wild-type cytomegalovirus (CMV) glycoprotein B (gB) protein, which mutant comprises at least two amino acid mutations relative to the amino acid sequence of the wild-type CMV gB protein, and wherein the amino acid mutation is selected from the group consisting of:

(1) an engineered disulfide bond mutation;

(2) an additional mutation; and

(3) a combination of at least one engineered disulfide mutation and at least one additional mutation.

2. The mutant according to claim 1, wherein the amino acid mutations comprise a combination of at least two engineered disulfide mutations and at least one additional mutation.

3. The mutant according to claim 1, which is in the form of a trimer.

4. The mutant according to claim 1, which has increased stability in prefusion form as compared with the corresponding wild-type CMV gB protein, wherein the stability is measured by binding of a prefusion-specific antibody, thermal shift assay or EM imaging.

5. The mutant according to any one of claims 1-4, wherein the wild-type CMV gB is Towne strain.

6. The mutant according to any one of claims 1-5, wherein the engineered disulfide mutation is selected from the group consisting of: D217C and Y589C; M371C and W506C; and N524C and M684C.

7. The mutant according to any one of claims 1-5, wherein the additional mutation is selected from the group consisting of:

(1) substitution of YIH at positions 155-157 with GHR;

(2) substitution of W at position 240 with A;

(3) substitution of C at position 246 with S;

(4) substitution of P at position 655 with S;

(5) substitution of F at position 678 with S; and

(6) substitution of L at position 680 with T;

(7) substitution of R at position 685 with A;

(8) substitution of MIALDI at positions 648-653 with GSGKDG;

(9) substitution of R at position 693 with V;

(10) substitution of I at position 675 with S;

(11) substitution of I at positions 767 and 768 with C;

(12) substitution of D at position 703 and P at position 704 with C; and

(13) substitution of Y at position 696 and V at position 697 with C.

8. The mutant according to any one of claims 1-5, wherein the additional mutation is selected from the group consisting of:

(1) substitution of YIH at positions 155-157 with GHR;

(2) substitution of W at position 240 with A;

(3) substitution of C at position 246 with S; and

(4) substitution of I at position 675 with S.

9. The mutant according to any one of claims 1-5, wherein the amino acid mutation is a combination of at least two engineered disulfide mutations and at least one additional mutation, and wherein:

(i) the engineered disulfide mutations are selected from the group consisting of: D217C and Y589C; M371C and W506C; and N524C and M684C; and

(ii) the additional mutation is selected from the group consisting of:

(1) substitution of YIH at positions 155-157 with GHR;

(2) substitution of W at position 240 with A;

(3) substitution of C at position 246 with S;

(4) substitution of P at position 655 with S;

(5) substitution of F at position 678 with S; and

(6) substitution of L at position 680 with T;

(7) substitution of R at position 685 with A;

(8) substitution of MIALDI at positions 648-653 with GSGKDG;

(9) substitution of R at position 693 with V;

(10) substitution of I at position 675 with S;

(11) substitution of I at positions 767 and 768 with C;

(12) substitution of D at position 703 and P at position 704 with C; and

(13) substitution of Y at position 696 and V at position 697 with C.

10. The mutant according to claim 9, wherein the amino acid mutations are a combination of mutations selected from the group consisting of:

(1) combination of D217C and Y589C, M371C and W506C, and I675S;

(2) combination of D217C and Y589C, N524C and M684C, and I675S;

(3) combination of D217C and Y589C, M371C and W506C, Y155G I156H H157R, W240A, C246S and I675S; and

(4) combination of D217C and Y589C, N524C and M684C, Y155G I156H H157R, W240A, C246S and I675S.

11. The mutant according to claim 1, wherein the mutant comprises a cysteine (C) at position 217 (217C) and at position 589 (589C), a cysteine (C) at position 371 (371C) and at position 506 (506C), and a serine (S) at position 675 (675S), and wherein the mutant is selected from the group consisting of:

(1) a mutant comprising the amino acid sequence set forth in SEQ ID NO:257; and

(2) a mutant comprising an amino acid sequence that is at least 97%, 98% or 99% identical to the amino acid sequence of SEQ ID NO:257.

12. The mutant according to claim 1, wherein the mutant comprises a cysteine (C) at position 217 (217C) and at position 589 (589C), a cysteine (C) at position 524 (524C) and at position 684 (684C), and a serine (S) at position 675 (675S), and wherein the mutant is selected from the group consisting of:

(1) a mutant comprising the amino acid sequence of SEQ ID NO: 259; and

(2) a mutant comprising an amino acid sequence that is at least 97%, 98% or 99% identical to the amino acid sequence of SEQ ID NO: 259.

13. The mutant according to claim 1, wherein the mutant comprises a cysteine (C) at position 217 (217C) and at position 589 (589C), a cysteine (C) at position 371 (371C) and at position 506 (506C), a serine (S) at position 675 (675S), a glycine (G) at position 155 (155G), a histidine at position 156 (156H), an arginine at position 157 (157R), an alanine at position 240 (240A), and a serine at position 246 (246S), and wherein the mutant is selected from the group consisting of:

(1) a mutant comprising the amino acid sequence set forth in SEQ ID NO:261; and

(2) a mutant comprising an amino acid sequence that is at least 97%, 98% or 99% identical to the amino acid sequence of SEQ ID NO: 261; (1) a mutant comprising the amino acid sequence set forth in SEQ ID NO: 261;

(3) a mutant comprising the amino acid sequence set forth in SEQ ID NO: 265; and

(4) a mutant comprising an amino acid sequence that is at least 97%, 98% or 99% identical to the amino acid sequence of SEQ ID NO:265.

14. The mutant according to claim 1, wherein the mutant comprises a cysteine (C) at position 217 (217C) and at position 589 (589C), a cysteine (C) at position 524 (524C) and at position 684 (684C), a serine (S) at position 675 (675S), a glycine (G) at position 155 (155G), a histidine at position 156 (156H), an arginine at position 157 (157R), an alanine at position 240 (240A), and a serine at position 246 (246S), and wherein the mutant is selected from the group consisting of:

(1) a mutant comprising the amino acid sequence of SEQ ID NO: 263; and

(2) a mutant comprising an amino acid sequence that is at least 97%, 98% or 99% identical to the amino acid sequence of SEQ ID NO:263.

15. The mutant according to any one of claims 1-11, wherein the amino acid sequence of the wildtype CMV gB polypeptide is set forth in SEQ ID NO: 1.

16. The mutant of any one of claims 1-15, wherein the amino acid sequence of the mutant does not comprise a signal sequence.

17. The mutant of claim 16, wherein the mutant comprises residues 23-907 of SEQ ID NO: 1.

18. The mutant of any one of claims 1-17, wherein the amino acid sequence of the mutant does not comprise an MPR, TM or CT domain.

19. The mutant of claim 18, wherein the mutant comprises residues 23-707 of SEQ ID NO: 1.

20. The mutant of any one of claims 1-19, wherein the amino acid sequence of the mutant comprises a truncated Domain V region.

21. The mutant of claim 20, wherein the mutant comprises residues 23-702 or 23-703 of SEQ ID NO: 1.

22. The mutant of any one of claims 1-19, wherein the amino acid sequence of the mutant does not comprise a Domain V region.

23. The mutant of claim 22, wherein the mutant comprises residues 23-646 of SEQ ID NO: 1.

24. The mutant of any one of claims 20-23, wherein the mutant further comprises a trimerization motif linked to the C terminus of the mutant.

25. The mutant of claim 24, wherein the trimerization motif is selected from the group consisting of:

(i) an inter-protomer disulfide ring;

(ii) GCN4;

(iii) T4 fibritin foldon; and

(iv) C-terminus fusion sequence.

26. The mutant of claim 25, wherein

(i) the GCN4 comprises an amino acid sequence as set forth in SEQ ID NOs: 269, 272 or 273;

(ii) the T4 fibritin foldon comprises an amino acid sequence as set forth in SEQ ID NO: 271; or

(iii) the C-terminus fusion sequence comprises an amino acid sequence as set forth in SEQ ID NO: 274.

27. The mutant of claim 25, wherein the inter-protomer disulfide ring comprises at least two engineered cysteine mutations selected from:

(i) 696C and 697C;

(ii) 703C and 704C; or

(iii) 767C and 768C.

28. The mutant of any one of claims 18-27, wherein the mutant is secreted.

29. The mutant of any one of claims 1-17, wherein the mutant is soluble.

30. The mutant of any one of claims 1-14 and 16-19, wherein the wildtype CMV gB polypeptide sequence is selected from SEQ ID NOs: 107-140 or 224.

31. The mutant of any one of claims 1-14 and 16-19, wherein the wildtype CMV gB polypeptide sequence is encoded by the polynucleotide sequences set forth in SEQ ID NOs: 225-254.

32. A nucleic acid molecule comprising a nucleotide sequence that encodes an amino acid sequence of a CMV gB protein mutant according to any one of claims 1-31.

33. The nucleic acid molecule of claim 32, wherein the nucleic acid comprises nucleotides having a sequence set forth in SEQ ID NOs: 225-254.

34. A pharmaceutical composition comprising (i) a CMV gB protein mutant according to any one of claims 1-31 and (ii) a pharmaceutically acceptable carrier.

35. The pharmaceutical composition according to claim 34, which is a vaccine.

36. A method of reducing CMV infection in a subject comprising administering to the subject an effective amount of the vaccine according to claim 35.

37. A method of eliciting an immune response to CMV infection in a subject comprising administering to the subject an effective amount of the vaccine according to claim 35.

38. A method of preventing CMV infection in a subject comprising administering to the subject an effective amount of the vaccine according to claim 35.

39. The method of any one of claims 36-38, wherein the subject is a human.

5