BINDING PROTEINS AND METHODS OF USE THEREOF

FIELD

[0001] This application claims the benefit of U.S. Provisional Application No. 62/316,516, filed March 31, 2016, the entire contents of which is incorporated by reference.

[0002] The present disclosure relates generally to binding proteins, such as antibodies, that bind to a GDNF Family Receptor Alpha Like (GFRAL) protein, including human GFRAL protein, and methods of their use.

BACKGROUND

[0003] Growth differentiation factor 15 (GDF15) is a protein belonging to the transforming growth factor beta (TGF-β) superfamily. GDF15 is also known as TGF-PL, MIC-1, PDF, PLAB, NAG-1, and PTGFB. GDF15 mRNA is reported to be most abundant in the liver, with lower levels seen in some other tissues. Its expression in liver can be significantly up-regulated in injury of organs such as liver, kidney, heart and lung.

[0004] GDF15 is reported to play a role in regulating inflammatory and apoptotic pathways in injured tissues and during disease processes. It has been reported that GDF15 is a mediator of cachexia in various diseases. However, cachexia is a complex and incompletely understood syndrome. In addition, at least some tumors over-express and secrete GDF15, and elevated serum GDF15 levels have been associated with various cancers. GDF-15 has been described as a negative regulator of macrophage activation by suppressing the release of TNF-α, IL-1, IL-2 and MCS-F, thus inhibiting the positive feedback of local inflammatory signaling similar to the effects of TGF-β. Monoclonal antibodies against GDF15 have been disclosed as potential therapeutic agents for the treatment of cachexia and of cancer. The receptor for GDF15 is unknown.

[0005] There is a significant unmet need for therapeutic agents effective to treat weight loss associated with a number of diseases and conditions, including wasting diseases such as cachexia or sarcopenia and inflammatory conditions such as systemic inflammation or an acute inflammatory response. There is also a significant unmet need for therapeutic agents effective to treat chronic diseases, including cancer, chronic renal disease, chronic obstructive pulmonary disease,

AIDS, tuberculosis, chronic inflammatory disease, systemic inflammation, and muscle wasting diseases, including in which involuntary body weight loss and/or muscle mass loss is involved.

SUMMARY

[0006] The present disclosure provides proteins that bind to a GDNF Family Receptor Alpha Like (GFRAL) protein, including binding proteins such as antibodies that bind to a GFRAL protein. Such binding proteins including antibodies, may bind to a GFRAL polypeptide, a GFRAL fragment and/or a GFRAL epitope. Such binding proteins, including antibodies, may be antagonists (*e.g.*, inhibit binding of a GDF15 protein to a GFRAL protein, inhibit binding of a RET protein to a GFRAL protein, inhibit a GDF15 protein induced signaling, and/or inhibit formation of a GDF15/GFRAL or a GDF15/GFRAL/RET receptor complex).

[0007] The present disclosure also provides binding proteins, including antibodies (*e.g.,* monoclonal antibodies) or fragments thereof, that (i) bind to a GFRAL protein, (ii) inhibit binding of a GDF15 protein to a GFRAL protein, and/or (iii) inhibit binding of a RET protein to a GFRAL protein.

[0008] In some embodiments, the anti-GFRAL antibodies are humanized antibodies that bind to a GFRAL polypeptide, a GFRAL fragment, or a GFRAL epitope. In certain embodiments, an anti-GFRAL antibody comprises a VH CDR1, VH CDR2, VH CDR3, VL CDR1, VL CDR2, and/or VL CDR3 of a monoclonal antibody designated 1C1, 3P10, 12A3, 5F12, 5A20, 8D8, 17J16, 25M22, 2B8, 22N5, 2I23, 6N16, 1B3, 19K19, 2B3, 8C10, 2A9, 24G2, 6G9, 2B11, 1A3, P1B6, P1H8, or P8G4 as described herein, or a humanized variant thereof. In certain embodiments, an anti-GFRAL antibody can further comprise a VH FR1, VH FR2, VH FR3, VH FR4, VL FR1, VL FR2, VL FR3, and/or VL FR4 of a human immunoglobulin amino acid sequence or a variant thereof.

[0009] In some embodiments, a binding protein (*e.g.,* an anti-GFRAL antibody) comprises six CDRs or less than six CDRs. In some embodiments, a binding protein (*e.g.,* an anti-GFRAL antibody) comprises one, two, three, four, five, or six CDRs selected from VH CDR1, VH CDR2, VH CDR3, VL CDR1, VL CDR2, and/or VL CDR3. In some embodiments, a binding protein (*e.g.,* an anti-GFRAL antibody) comprises one, two, three, four, five, or six CDRs selected from VH CDR1, VH

CDR2, VH CDR3, VL CDR1, VL CDR2, and/or VL CDR3 of a monoclonal antibody designated as 1C1, 3P10, 12A3, 5F12, 5A20, 8D8, 17J16, 25M22, 2B8, 22N5, 2I23, 6N16, 1B3, 19K19, 2B3, 8C10, 2A9, 24G2, 6G9, 2B11, 1A3, P1B6, P1H8, or P8G4 as described herein, or a humanized variant thereof. In some embodiments, a binding protein (*e.g.,* an anti-GFRAL antibody) further comprises a scaffold region or framework region, including a VH FR1, VH FR2, VH FR3, VH FR4, VL FR1, VL FR2, VL FR3, and/or VL FR4 of a human immunoglobulin amino acid sequence or a variant thereof.

[0010] In some embodiments, the antibody is a humanized antibody, a monoclonal antibody, a recombinant antibody, an antigen binding fragment or any combination thereof. In some embodiments, the antibody is a humanized monoclonal antibody, or antigen binding fragment thereof, that binds to a GFRAL polypeptide (*e.g.,* a cell surface-expressed or soluble GFRAL), a GFRAL fragment, or a GFRAL epitope.

[0011] The present disclosure also provides binding proteins such as anti-GFRAL antibodies (i) that competitively block (*e.g.,* in a dose-dependent manner) an anti-GFRAL antibody provided herein from binding to a GFRAL polypeptide (*e.g.,* a cell surface-expressed or soluble GFRAL), a GFRAL fragment, or a GFRAL epitope and/or (ii) that bind to a GFRAL epitope that is bound by an anti-GFRAL antibody provided herein. In other embodiments, the binding proteins such as anti-GFRAL antibody competitively block (*e.g.,* in a dose-dependent manner) monoclonal antibody 25M22, 3P10, 8D8 or 5F12 described herein or a humanized variant thereof from binding to a GFRAL polypeptide (*e.g.,* a cell surface-expressed or soluble GFRAL protein), a GFRAL fragment, or a GFRAL epitope. In other embodiments, the binding proteins such as anti-GFRAL antibody bind to a GFRAL epitope that is bound (*e.g.,* recognized) by monoclonal antibody 25M22, 3P10, 8D8 or 5F12 described herein or a humanized variant thereof.

[0012] The present disclosure also provides binding proteins, including antibodies or fragments thereof, that (i) bind to an epitope of a GFRAL protein recognized by an antibody comprising a heavy chain variable region having the amino acid sequence of SEQ ID NO: 3, 7, 11, or 15 and a light chain variable region having the amino acid sequence of SEQ ID NO: 4, 8, 12, or 16, respectively; or (ii) compete for the binding to a GFRAL protein with an antibody comprising a heavy chain variable region having the amino acid sequence of SEQ ID NO: 3, 7, 11, or 15 and a light chain

variable region having the amino acid sequence of SEQ ID NO: 4, 8, 12, or 16, respectively. In some embodiments, binding proteins, including antibodies or fragments thereof, are provided herein that bind to a region, including an epitope, of one or more amino acids of a GFRAL protein (*e.g.*, a human GFRAL protein). In some embodiments, binding proteins, including antibodies or fragments thereof, bind to a region of a GFRAL protein (*e.g.*, one or more amino acid residues of an extracellular domain) including, for example, those that bind to: (i) domain 1 of a GFRAL protein (*e.g.*, amino acid residues Q20 to S130 of SEQ ID NO: 1797); (ii) domain 2 of a GFRAL protein (*e.g.*, amino acid residues C131 to C210 of SEQ ID NO: 1797); (iii) domain 3 of a GFRAL protein (*e.g.*, amino acid residues C220 to C316 of SEQ ID NO: 1797); or (iv) an extracellular domain of a GFRAL protein (*e.g.*, amino acid residues Q20 to E351 of SEQ ID NO: 1797).

[0013] In some embodiments, binding proteins, including antibodies or fragments thereof, are provided herein that bind to a specific epitope (*e.g.*, one or more amino acid residues) of a GFRAL protein, including, for example, those that bind to: (i) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues SER156, GLN147, LEU148, ALA149, SER150, TYR151, LEU152, LYS153, ALA154, CYS155, PHE174, TYR175, GLU136, ALA137, CYS138, VAL139, GLY140, ASP141, VAL142, VAL143, CYS144, ASN145, ALA146, LEU186, CYS189, CYS191, ALA192, GLN193, SER194, ASP195, ILE196, PRO197, CYS198, GLN199, GLN200, SER201, LYS202, GLU203, ALA204, LEU205, HIS206, SER207, SER130, CYS131, LEU132, GLU133, VAL134, or ALA135 of a GFRAL protein (SEQ ID NO: 1797); (ii) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues LEU132, GLU133, VAL134, ALA135, GLU136, ALA137, CYS138, VAL139, GLY140, ASP141, VAL142, VAL143, CYS144, ASN145, ALA146, GLN147, LEU148, ALA149, SER150, TYR151, PHE174, TYR175, ALA169, ALA170, ILE171, ARG172, PHE173, GLN176, ASN177, ILE178, PRO179, PHE180, ASN181, ILE182, ALA183, GLN184, MET185, LEU186, ALA187, PHE188, or CYS189 of SEQ ID NO: 1797; (iii) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues LEU164, LYS208, VAL212, ASN213, MET214, VAL215, PRO216, PRO217, PRO218, THR219, CYS220, LEU221, VAL223, TRP245, LEU267, CYS269, GLN28, VAL289, GLN290, CYS291, THR292, CYS293, ARG294, THR295, ILE296, THR297, GLN298, SER299, GLU300,

GLU301, SER302, LEU303, CYS304, LYS305, ILE306, PHE307, GLN308, HIS309, MET310, LEU311, HIS312, ARG313, LYS314, SER315, CYS316, or PHE317 of SEQ ID NO: 1797; (iv) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues CYS233, ARG234, ARG235, HIS236, TYR237, ARG238, THR239, PHE240, GLN241, SER242, LYS243, CYS244, TRP245, GLN246, ARG247, VAL248, THR249, ARG250, LYS251, CYS252, HIS253, GLU254, ASP255, GLU256, ASN257, CYS258, ILE259, SER260, THR261, LEU262, SER263, LYS264, ASP266, LEU267, THR268, SER272, ASP274, CYS275, ALA278, CYS269, SER270, SER302, LEU303, ILE306, HIS309, LEU311, MET310, SER315, or CYS316 of SEQ ID NO: 1797; (v) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues GLY140, LEU148, ALA149, ALA146, VAL142, ASN145, VAL139, ALA135, GLU136, LEU152, LEU132, SER201, ALA204, LEU205, LYS153, ILE196, PRO197, or GLN200 of SEQ ID NO: 1797; (vi) an epitope of a GFRAL protein comprising at least one of(*e.g.*, one or more) amino acid residues GLU136, ALA137, VAL139, GLY140, ASP141, VAL142, VAL143, CYS144, ASN145, ALA146, GLN147, PHE173, ASN177, ILE178, PRO179, ASN181, ILE182, or MET185 of SEQ ID NO: 1797; (vii) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues GLN298 or GLU301 of SEQ ID NO: 1797; or (viii) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues ARG234, ARG238 , GLN241, SER242, LYS243, TRP245, GLN246, THR249, ARG250, LYS251, CYS252, HIS253, ASP255, ASN257, CYS258, SER260, THR261, or LEU262 of SEQ ID NO: 1797. Such antibodies provided above can, in some embodiments, inhibit GDF15-induced signaling and/or signaling or activation of a GFRAL/GDF15 or RET/GFRAL/GDF15 receptor complex, for example, in a cell that expresses a GFRAL protein. Additionally, in some embodiments, the antibody is a monoclonal antibody, for example, a humanized, human or chimeric antibody.

[0014] In some embodiments, the binding proteins such as anti-GFRAL antibodies provided herein are conjugated or recombinantly linked to a diagnostic agent, a detectable agent (*e.g.*, a radioisotope, an enzyme, a fluorescent compound, a bioluminescent compound or a chemiluminescent compound). In some embodiments, the binding proteins such as anti-GFRAL antibodies provided herein are used (*e.g.*, administered) with a therapeutic agent. In some aspects, the

therapeutic agent is a drug, including one or more drugs such as an inhibitor of Activin-A, an inhibitor of ActRIIB, an inhibitor of IL-6 or an inhibitor of IL-6R, a ghrelin, a ghrelin mimetic or a GHS-RIa agonist, a SARM, a TNFα inhibitor, an IL-Ia inhibitor, a myostatin inhibitor, a beta-blocker, a melanocortin peptide inhibitor, a melanocortin receptor inhibitor, or an anti-cancer agent.

[0015] In certain embodiments, compositions are provided comprising a binding protein such as an anti-GFRAL antibody described herein. Also provided herein are pharmaceutical compositions comprising a binding protein such as an GFRAL antibody as described herein.

[0016] The present disclosure also provides isolated nucleic acid molecules encoding an immunoglobulin heavy chain, an immunoglobulin light chain, VH region, VL region, VH CDR1, VH CDR2, VH CDR3, VL CDR1, VL CDR2, and/or VL CDR3 of binding proteins (*e.g.,* anti-GFRAL antibodies) that bind to a GFRAL polypeptide, a GFRAL polypeptide fragment, or a GFRAL epitope (*e.g.*, one or more amino acids of a GFRAL protein, including of an extracellular domain of a GFRAL protein). In some embodiments, the nucleic acid molecule encodes a VH region, VL region, VH CDR1, VH CDR2, VH CDR3, VL CDR1, VL CDR2, and/or VL CDR3 of a monoclonal antibody designated as 1C1, 3P10, 12A3, 5F12, 5A20, 8D8, 17J16, 25M22, 2B8, 22N5, 2I23, 6N16, 1B3, 19K19, 2B3, 8C10, 2A9, 24G2, 6G9, 2B11, 1A3, P1B6, P1H8, or P8G4 as described herein, or a humanized variant thereof. In some embodiments, the nucleic acid molecule further encodes a scaffold region or a framework region, including VH FR1, VH FR2, VH FR3, VH FR4, VL FR1, VL FR2, VL FR3, and/or VL FR4 of a human immunoglobulin amino acid sequence or a variant thereof. Also provided herein are vectors and host cells comprising the nucleic acid molecules encoding a binding protein such as anti-GFRAL antibody, as well as methods of producing a binding protein such as an anti-GFRAL antibody by culturing the host cells provided herein under conditions that promote the production of a binding protein such as an anti-GFRAL antibody.

[0017] The present disclosure also provides methods of treating, preventing or alleviating a GFRAL-mediated disease, disorder, or condition, including a GDF15-mediated disease, disorder or condition, (*e.g.,* one or more symptoms) comprising administering to a subject a therapeutically effective amount of a binding protein such as an anti-GFRAL antibody provided herein, including a subject in need

thereof, thereby treating, preventing or alleviating the disease, disorder or condition. In some embodiments, the disease, disorder or condition is caused by or otherwise associated with a GDF15 protein (*e.g.*, a human GDF15 protein) and/or a GFRAL protein (*e.g.*, a human GFRAL protein), such as those related to GDF15-induced signaling in a subject. In certain embodiments, the disease, disorder, or condition is treatable by reducing the occurrence, frequency or severity of cachexia, sarcopenia, or muscle wasting, bone wasting or involuntary loss of body weight. In certain embodiments, the disease, disorder, or condition is cachexia. In certain embodiments, the disease, disorder, or condition is a cancer. In certain embodiments, the disease, disorder, or condition is a cardiovascular disease. In certain embodiments, the disease, disorder, or condition is a chronic inflammatory disease (*e.g.*, chronic renal disease, chronic obstructive pulmonary disease). In certain embodiments, the disease, disorder, or condition is a cancer that has decreased sensitivity to (*e.g.*, resistance to) a chemotherapeutic agent (*e.g.*, an anti-tumor antibody such as trastuzumab) that is induced by or related to a GDF15 protein, including elevated levels of GDF15.

[0018] In some embodiments, the disease, disorder or condition is or is related to cachexia, sarcopenia, muscle wasting or loss of muscle mass, bone wasting, involuntary loss of body weight (*e.g.*, body weight loss associated with or due to a disease, disorder, or condition). In some embodiments, the disease, disorder or condition is selected from the group of underlying diseases associated with cachexia including, but are not limited to, cancer, chronic renal disease, chronic obstructive pulmonary disease, AIDS, tuberculosis, chronic inflammatory diseases, sepsis and other forms of systemic inflammation, muscle wasting, such as muscular dystrophy, and the eating disorder known as anorexia nervosa.

[0019] In some embodiments, the methods of treating, preventing or ameliorating include methods of improving body weight gain or reducing body weight loss, or improving muscle mass gain or reducing muscle mass loss. In some embodiments, the methods of treating, preventing or ameliorating result in improved methods of treating cancer, by preventing, minimizing or reducing the occurrence, frequency or severity of cachexia, sarcopenia or muscle wasting, bone wasting or involuntary loss of body weight.

[0020] The present disclosure also provides methods for detecting GFRAL in a sample comprising contacting the sample with a binding protein such as an anti-GFRAL antibody as described herein, that comprises a detectible agent. In certain embodiments, the sample comprises a cell expressing GFRAL on its surface.

[0021] The present disclosure also provides kits comprising a binding protein such as an anti-GFRAL antibody that binds to a GFRAL polypeptide, a GFRAL fragment or a GFRAL epitope as described herein.

BRIEF DESCRIPTION OF THE FIGURES

[0022] **FIG. 1** shows a sequence alignment between various GFRAL proteins. SEQ ID NOS are noted in parenthesis and bold text.

[0023] **FIG. 2** shows a sequence alignment between various GDF15 proteins. SEQ ID NOS are noted in parenthesis and bold text.

[0024] **FIG. 3** depicts results of an experiment showing binding affinity of exemplary anti-GFRAL antibodies 1C1 and 3P10 for a GFRAL protein.

[0025] **FIG. 4A-4B** show alignments of VH and VL sequences for exemplary anti-GFRAL antibodies. SEQ ID NOS are noted in parenthesis and bold text.

[0026] **FIG. 5A-5F** show alignments of VH and VL sequences for exemplary anti-GFRAL antibodies that bind to domain 1 (**FIGS. 5A-5B**), domain 2 (**FIGS. 5C-5D)**, or domain 3 (**FIGS. 5E-5F**) of GFRAL. SEQ ID NOS are noted in parenthesis and bold text.

[0027] **FIGS. 6A-6B** show alignments of VH and VL sequences of humanized 1C1 antibodies. SEQ ID NOS are noted in parenthesis and bold text.

[0028] **FIGS. 7A-7B** show alignments of VH and VL sequences of humanized 25M22 antibodies. SEQ ID NOS are noted in parenthesis and bold text.

[0029] **FIGS. 8A-8B** show alignments of VH and VL sequences of humanized 17J16 antibodies. SEQ ID NOS are noted in parenthesis and bold text.

[0030] **FIGS. 9A-9B** show alignments of VH and VL sequences of humanized 5F12 antibodies. SEQ ID NOS are noted in parenthesis and bold text.

[0031] **FIGS. 10A-10B** show alignments of VH and VL sequences of humanized 3P10 antibodies. SEQ ID NOS are noted in parenthesis and bold text.

[0032] **FIG. 11** depicts results of a receptor antagonist assay using a humanized GFRAL antibody.

[0033] **FIG. 12** depicts results for an Elk1 reporter assay showing of humanized antibodies.

[0034] **FIGS. 13A-13C** depict results of an experiment showing specificity of an exemplary humanized anti-GFRAL antibody.

[0035] **FIGS. 14A-14B** depict results of an experiment showing anti-GFRAL antibody inhibition of GDF15-induced weight loss in DIO mice. For **FIG. 14A**, from left to right in the figure, the administered treatment was PBS, 3P10, 1C1, 17J16, 5A20, 25M22, 5F12, and 1MO3, respectively (for d1, d2 and d3, respectively). For **FIG. 14B**, from left to right in the figure, the administered treatment was PBS, 8D8 and 12A3, respectively (for d1, d2 and d3, respectively).

[0036] **FIG. 15** depicts results of an experiment showing anti-GFRAL antibodies in a model of GDF15-induced weight loss.

[0037] **FIG. 16** depicts results of an experiment showing the effects of anti-GFRAL antibodies on food intake.

[0038] **FIG. 17** depicts results of an experiment showing the effects of anti-GFRAL antibodies on body weight in DIO mice.

[0039] **FIG. 18** depicts results of an experiment showing the effects of anti-GFRAL antibodies on food intake in DIO mice.

[0040] **FIG. 19** depicts results of an experiment showing the effects of anti-GFRAL antibodies on fat mass.

[0041] **FIG. 20** depicts results of an experiment showing the effect of anti-GFRAL antibodies on GDF15-induced loss of body weight and loss of fat and lean mass in DIO mice.

[0042] **FIG. 21** depicts results of an experiment showing the effects of anti-GFRAL antibodies on GDF15-induced increase in energy expenditure and GDF15-induced reduction in food intake in DIO mice.

[0043] **FIG. 22** depicts results of an experiment showing the effects of anti-GFRAL antibodies on GDF15-induced loss of body weight and loss of fat and lean mass in lean mice.

[0044] **FIG. 23** depicts results of an experiment showing the effects anti-GFRAL antibodies on GDF15-induced change in RER and GDF15-induced reduction in food intake in lean mice.

[0045] **FIG. 24** depicts results of an experiment showing the effects of of an anti-GFRAL antibody (3P10) on body weight in lean mice.

[0046] **FIG. 25** depicts results of an experiment showing the effects of administration of anti-GFRAL antibodies on food intake in lean mice.

[0047] **FIGS. 26A-26C** depict results of an experiment showing the effects of dietary adenine.

[0048] **FIG. 27A** depicts results of an experiment showing the effects of dietary adenine.

[0049] **FIG. 27B** depicts results of an experiment showing the effects of an exemplary an anti-GFRAL antibody (3P10) on mice with chronic kidney damage.

[0050] **FIG. 28** depicts results of an experiment showing the effects of an exemplary an anti-GFRAL antibody (3P10) on mice with chronic kidney damage.

[0051] **FIG. 29** depicts results of an experiment showing the effects of an exemplary humanized anti-GFRAL antibody (h3P10) of GDF15-induced body weight loss.

[0052] **FIG. 30** shows an exemplary crystal of a complex ofa GFRAL protein and a GDF15 protein.

[0053] **FIG. 31** illustrates an exemplary GFRAL electron density map.

[0054] **FIG. 32** shows an exemplary ribbon diagram of a GFRAL/GDF15 complex formed in an asymmetric GFRAL/GDF15 crystal unit. GFRAL protein domains D2 and D3 are indicated as GFRAL D2 and GFRAL D3.

[0055] **FIG. 33** shows an exemplary ribbon diagram of a dimer of two GFRAL/GDF15 complexes. The GFRAL protein domains D2 and D3 are indicated as GFRAL D2 and GFRAL D3.

[0056] **FIGS. 34A-34B** show different surface representations of a dimer of two GFRAL/GDF15 complexes.

[0057] **FIG. 35** illustrates GFRAL amino acid residues interacting with GDF15 amino residues.

[0058] **FIGS. 36A-36D** illustrate a GFRAL/GDF15 interface. The GFRAL protein domains D2 and D3 are indicated as GFRAL D2 and GFRAL D3.

[0059] **FIGS. 37A-37B** show different aspects of a superposition of a GFRAL protein and GFRα1 depicted as ribbon diagrams.

[0060] **FIGS. 38A-38D** illustrate different aspects of the interaction of a GFRAL protein with a RET protein in a RET/GFRAL/GDF15 model.

[0061] **FIGS. 39A-39B** illustrate amino acid residues on the RET protein interface of a GFRAL protein.

[0062] **FIG. 40** illustrates exemplary crystals of a complex having a GFRAL protein, a 3P10 Fab and a 25M22 Fab produced under crystallization conditions B11, D11, and H8.

[0063] **FIG. 41** illustrates exemplary crystals of a complex having a GFRAL protein, a 8D8 Fab and a 5F12 Fab produced under crystallization conditions C6, E11, and C2.

[0064] **FIG. 42** illustrates exemplary electron density maps of 3P10 Fab and 25M22 Fab CDR regions in the crystal structure of a GFRAL/3P10/25M22 Fab complex.

[0065] **FIG.43** illustrates an exemplary electron density of a GFRAL/8D8/5F12 Fab complex.

[0066] **FIG. 44** shows an exemplary ribbon diagram of a GFRAL/3P10/25M22 Fab complex formed in an asymmetric GFRAL/3P10/25M22 Fab complex crystal unit.

[0067] **FIG. 45** shows alignments of 3P10 Fab and 25M22 Fab CDR sequences (top lines) with GFRAL amino acid residues (bottom lines) that are involved in 3P10 Fab and 25M22 Fab binding. Residues involved in the GFRAL-Fab interaction are boxed. For the 3P10 Fab, amino acid residues Q1 to S120 of SEQ ID NO: 1824 are shown for the Hc and amino acid residues D1 to F120 of SEQ ID NO: 1825 are

shown for the Lc. For the 25M22 Fab, amino acid residues Q1 to S120 of SEQ ID NO: 1826 are shown for the Hc.

[0068] **FIG. 46** shows a ribbon diagram illustrating the interaction of a GFRAL 3P10 Fab epitope and a 3P10 Fab heavy chain CDR region.

[0069] **FIG. 47** shows a ribbon diagram illustrating the interaction of a GFRAL 3P10 Fab epitope and a 3P10 light chain CDR region.

[0070] **FIG. 48** shows a ribbon diagram illustrating the interaction of a GFRAL 25M22 epitope and a 25M22 Fab heavy chain CDR region.

[0071] **FIG. 49** shows amino acid sequences for a GFRAL protein (residues S130 to N318 of SEQ ID NO: 1797) and 25M22 Fab heavy chain (HC) residues Q1 to P138 and G146 to P225 of SEQ ID NO:1826 and light chain (LC) residues D1 to E218 of SEQ ID NO:1827. Residues having grey background and white text indicate core interaction interface amino acids for both the GFRAL protein and the 25M22 Fab. Residues on the Fab HC or LC having grey background with black or white lettering indicate exemplary CDR sequences for the 25M22 Fab.

[0072] **FIGS. 50A-50B** illustrate core interaction interface amino acid residues on a GFRAL protein and on 25M22 Fab involved in the GFRAL/25M22 Fab interaction.

[0073] **FIG. 51** illustrates boundary interaction interface amino acid residues on a GFRAL protein involved in the GFRAL/25M22 Fab interaction.

[0074] **FIG. 52** shows exemplary side views of a ribbon diagram illustrating overlapping 25M22 Fab and GDF15 epitopes on a GFRAL protein as space-filled surface models (core interaction interface amino acids).

[0075] **FIG. 53** shows a top view of a ribbon diagram illustrating overlapping 25M22 Fab and GDF15 epitopes on a GFRAL protein as space-filled surface models (core interaction interface amino acids).

[0076] **FIG.54** shows amino acid sequences for a GFRAL protein (residues S130 to N318 of SEQ ID NO: 1797) and 3P10 Fab heavy chain (HC) residues Q1 to A130 and G138 to C221 of SEQ ID NO:1824 and light chain (LC) residues D1 to C218 of SEQ ID NO:1825. Residues having grey background and white text indicate core interaction interface amino acids for both the GFRAL protein and the 3P10 Fab.

Residues on the Fab HC or LC having grey background with black or white lettering indicate exemplary CDR sequences for the 3P10 Fab.

[0077] **FIGS. 55A-55B** show a ribbon diagram illustrating a crystal structure of a GFRAL/3P10 Fab complex. Interaction interface residues are shown as stick models (**FIG. 55A**) or space-filled surface models (**FIG 55B**).

[0078] **FIGS. 56A-56B** illustrates interface residues of a GFRAL 3P10 Fab epitope as space-filled surface models in a ribbon diagram of GFRAL. **FIG. 56A** shows core interaction interface residues and **FIG. 56B** shows boundary interaction interface residues.

[0079] **FIG. 57** illustrates overlapping residues of a GFRAL protein that bind to 3P10 Fab and residues of a GFRALprotein that bind to a RET protein as space-filled surface models on a ribbon diagram of a GFRALprotein.

[0080] **FIG. 58** illustrates the combined coverage of boundary interaction interface residues of a GFRAL protein that bind to 3P10 Fab and 25M22 Fab.

[0081] **FIG. 59** shows an exemplary ribbon diagram of a GFRAL/8D8/5F12 Fab complex formed in an asymmetric GFRAL/8D8/5F12 Fab complex crystal unit.

[0082] **FIG. 60** shows an exemplary ribbon diagram of the 8D8 Fab and 5F12 Fab binding sites on a GFRAL protein. Residues on the GFRAL protein that are important for Fab binding are shown as stick models.

[0083] **FIG. 61** shows amino acid sequences for a GFRAL protein (residues S130 to N318 of SEQ ID NO: 1797) and 8D8 Fab heavy chain (HC) residues Q1 to K217 of SEQ ID NO:1828 and light chain (LC) residues D1 to R211 of SEQ ID NO:1829. Residues having grey background and white text indicate core interaction interface amino acids for both the GFRAL protein and the 8D8 Fab. Residues on the Fab HC or LC having grey background with black or white lettering indicate exemplary CDR sequences for the 8D8 Fab.

[0084] **FIGS. 62A, 62B, 62C and 62D** illustrate core and boundary amino acid residues in a GFRAL/8D8 Fab interaction interface.

[0085] **FIG. 63A, 63B, 63C and 63D** illustrate the core and boundary amino acid residues in a GFRAL/5F12 Fab interaction interface.

[0086] **FIG. 64** shows amino acid sequences for a GFRAL (residues S130 to N318 of SEQ ID NO: 1797) and 5F12 Fab heavy chain (HC) residues Q1 to K223 of SEQ ID NO:1830 and light chain (LC) residues N1 to E217 of SEQ ID NO:1831. Residues having grey background and white text indicate core interaction interface amino acids for both the GFRAL protein and the 5F12 Fab. Residues on the Fab HC or LC having grey background with black or white lettering indicate exemplary CDR sequences for the 5F12 Fab.

DETAILED DESCRIPTION

[0087] Binding proteins, such as antibodies that bind a GFRAL protein, including a human GFRAL protein, are provided herein. A unique property of such binding proteins, including antibodies disclosed herein, is their antagonistic nature, including the ability to inhibit an effect of a GDF15 protein and/or to inhibit binding of a GDF15 protein to a GFRAL protein or inhibit binding of a RET protein to a GFRAL protein, including wherein the inhibition of binding reduces (*e.g.*, blocks) GDF15 signaling. Remarkably and specifically, binding proteins such as antibodies to a GFRAL protein disclosed herein (i) bind to a GFRAL protein, (ii) inhibit binding of a GDF15 protein to a GFRAL protein, and/or (iii) inhibit binding of a RET protein to a GFRAL protein, including blocking the formation of a GDF15/GFRAL protein complex or a GDF15/GFRAL/RET protein complex or GDF15 signaling, including, for example, as measured by several *in vitro* cell-based assays. Such assays may include (1) a ELK1-luciferase reporter assay (see, *e.g.*, Example 3); and/or (2) ERK-phosphorylation assay in U2OS cells (see, *e.g.*, Example 4). Binding proteins such as anti-GFRAL antibodies, as described herein, therefore are expected to inhibit GDF15 activities *in vivo* (*e.g.*, related to the signaling function of GDF15). This property makes the disclosed binding proteins, including anti-GFRAL antibodies, viable therapeutics for the treatment of a disease, disorder or condition that is caused by or otherwise associated with a GDF15 protein (*e.g.*, a human GDF15 protein) and/or a GFRAL protein (*e.g.*, a human GFRAL protein), such as those related to GDF15-induced signaling in a subject.

[0088] The binding proteins, such as antibodies that bind a GFRAL protein, that are provided herein share the common feature of antagonizing the binding of (i) a

GDF15 protein to a GFRAL protein and/or (ii) a RET protein to a GFRAL protein. The anti-GFRAL antibodies provided herein include humanized anti-GFRAL antibodies, including humanized anti-GFRAL antibodies derived from or based on 1C1, 3P10, 12A3, 5F12, 5A20, 8D8, 17J16, 25M22, 2B8, 22N5, 2I23, 6N16, 1B3, 19K19, 2B3, 8C10, 2A9, 24G2, 6G9, 2B11, 1A3, P1B6, P1H8, and/or P8G4 having CDR sequences as described in Tables 1-24 or **FIGS. 4-10**. Such anti-GFRAL antibodies, including humanized anti-GFRAL antibodies, bind to a specific domain of a GFRAL protein including, for example, those that bind to: (i) domain 1 of a GFRAL protein (*e.g.*, amino acid residues Q20 to S130 of SEQ ID NO: 1797); (ii) domain 2 of a GFRAL protein (*e.g.*, amino acid residues C131 to C210 of SEQ ID NO: 1797); (iii) domain 3 of a GFRAL protein (*e.g.*, amino acid residues C220 to C316 of SEQ ID NO: 1797); or (iv) an extracellular domain of a GFRAL protein (*e.g.*, amino acid residues Q20 to E351 of SEQ ID NO: 1797).

[0089] In some embodiments of the present disclosure, the binding proteins such as anti-GFRAL antibodies may comprise immunoglobulin variable regions which comprise one or more complementary determining regions (CDRs) as described in Tables 1-24. In such binding proteins (*e.g.,* anti-GFRAL antibodies), the CDRs may be joined with one or more scaffold regions or framework regions, which orient(s) the CDR(s) such that the proper antigen binding properties of the CDR(s) is achieved. Such binding proteins, including anti-GFRAL antibodies as described herein, can inhibit (*e.g.*, block) the interaction (i) between a GDF15 protein and a GFRAL protein and/or (ii) between a RET protein and a GFRAL protein. Such binding proteins, including anti-GFRAL antibodies as described herein, can inhibit (*e.g.*, block) GDF15 signaling.

[0090] In some embodiments of the present disclosure, the binding proteins such as anti-GFRAL antibodies bind to: (i) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues SER156, GLN147, LEU148, ALA149, SER150, TYR151, LEU152, LYS153, ALA154, CYS155, PHE174, TYR175, GLU136, ALA137, CYS138, VAL139, GLY140, ASP141, VAL142, VAL143, CYS144, ASN145, ALA146, LEU186, CYS189, CYS191, ALA192, GLN193, SER194, ASP195, ILE196, PRO197, CYS198, GLN199, GLN200, SER201, LYS202, GLU203, ALA204, LEU205, HIS206, SER207, SER130, CYS131, LEU132, GLU133, VAL134, or ALA135 of a GFRAL protein (SEQ ID NO: 1797); (ii) an epitope of a GFRAL

protein comprising at least one of (*e.g.*, one or more) amino acid residues LEU132, GLU133, VAL134, ALA135, GLU136, ALA137, CYS138, VAL139, GLY140, ASP141, VAL142, VAL143, CYS144, ASN145, ALA146, GLN147, LEU148, ALA149, SER150, TYR151, PHE174, TYR175, ALA169, ALA170, ILE171, ARG172, PHE173, GLN176, ASN177, ILE178, PRO179, PHE180, ASN181, ILE182, ALA183, GLN184, MET185, LEU186, ALA187, PHE188, or CYS189 of SEQ ID NO: 1797; (iii) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues LEU164, LYS208, VAL212, ASN213, MET214, VAL215, PRO216, PRO217, PRO218, THR219, CYS220, LEU221, VAL223, TRP245, LEU267, CYS269, GLN28, VAL289, GLN290, CYS291, THR292, CYS293, ARG294, THR295, ILE296, THR297, GLN298, SER299, GLU300, GLU301, SER302, LEU303, CYS304, LYS305, ILE306, PHE307, GLN308, HIS309, MET310, LEU311, HIS312, ARG313, LYS314, SER315, CYS316, or PHE317 of SEQ ID NO: 1797; (iv) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues CYS233, ARG234, ARG235, HIS236, TYR237, ARG238, THR239, PHE240, GLN241, SER242, LYS243, CYS244, TRP245, GLN246, ARG247, VAL248, THR249, ARG250, LYS251, CYS252, HIS253, GLU254, ASP255, GLU256, ASN257, CYS258, ILE259, SER260, THR261, LEU262, SER263, LYS264, ASP266, LEU267, THR268, SER272, ASP274, CYS275, ALA278, CYS269, SER270, SER302, LEU303, ILE306, HIS309, LEU311, MET310, SER315, or CYS316 of SEQ ID NO: 1797; (v) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues GLY140, LEU148, ALA149, ALA146, VAL142, ASN145, VAL139, ALA135, GLU136, LEU152, LEU132, SER201, ALA204, LEU205, LYS153, ILE196, PRO197, or GLN200 of SEQ ID NO: 1797; (vi) an epitope of a GFRAL protein comprising at least one of(*e.g.*, one or more) amino acid residues GLU136, ALA137, VAL139, GLY140, ASP141, VAL142, VAL143, CYS144, ASN145, ALA146, GLN147, PHE173, ASN177, ILE178, PRO179, ASN181, ILE182, or MET185 of SEQ ID NO: 1797; (vii) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues GLN298 or GLU301 of SEQ ID NO: 1797; or (viii) an epitope of a GFRAL protein comprising at least one of (*e.g.*, one or more) amino acid residues ARG234, ARG238 , GLN241, SER242, LYS243, TRP245, GLN246, THR249, ARG250, LYS251, CYS252, HIS253, ASP255, ASN257, CYS258, SER260, THR261, or LEU262 of SEQ ID NO: 1797. Such antibodies provided above can, in some embodiments, inhibit GDF15-induced

signaling and/or signaling or activation of a GFRAL/GDF15 or RET/GFRAL/GDF15 receptor complex, for example, in a cell that expresses a GFRAL protein. Additionally, in some embodiments of the present disclosure, the antibody is a monoclonal antibody, for example, a humanized antibody.

GENERAL TECHNIQUES

[0091] Techniques and procedures described or referenced herein include those that are generally well understood and/or commonly employed using conventional methodology by those skilled in the art, such as, for example, the widely utilized methodologies described in Sambrook *et al.*, Molecular Cloning: A Laboratory Manual 3rd. edition (2001) Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y.; Current Protocols in Molecular Biology (F. M. Ausubel, *et al.* eds., (2003)); Therapeutic Monoclonal Antibodies: From Bench to Clinic, Z. An, ed, Wiley, Hoboken N.J. (2009); Monoclonal Antibodies: Methods and Protocols, M. Albitar, ed., Humana Press, Totawa, N.J. (2010); and Antibody Engineering, 2nd Ed., Vols 1 and 2, Kontermann and Dubel, eds., Springer-Verlag, Heidelberg, 2010.

TERMINOLOGY

[0092] Unless described otherwise, all technical and scientific terms used herein have the same meaning as is commonly understood by one of ordinary skill in the art. For purposes of interpreting this specification, the following description of terms will apply and whenever appropriate, terms used in the singular will also include the plural and vice versa. All patents, applications, published applications and other publications are incorporated by reference in their entirety. In the event that any description of terms set forth conflicts with any document incorporated herein by reference, the description of term set forth below shall control.

[0093] The term “GDNF Family Receptor Alpha Like” “growth differentiation factor 15 receptor,” “GFRAL” or “GFRAL protein” and similar terms refers to a polypeptide (“polypeptide,” and “protein” are used interchangeably herein) or any native GFRAL from any vertebrate source, including mammals such as primates (*e.g.,* humans, cynomolgus monkey (cyno)), dogs, and rodents (*e.g.,* mice and rats), unless otherwise indicated, and, in certain embodiments, includes related GFRAL polypeptides, including SNP variants thereof. GFRAL is also known in the art as

"C6orf144," "Chromosome 6 Open reading Frame 144," BA360D14.1" "IVFI9356," and "UNQ9356."

[0094] The amino acid sequence of a full-length precursor human GFRAL is provided below, which includes a signal peptide sequence (underlined and lowercase residues):

mivfiflamglsleneytsQTNNCTYLREQCLRDANGCKHAWRVMEDACND
SDPGDPCKMRNSSYCNLSIQYLVESNFQFKECLCTDDFYCTVNKLLG
KKCINKSDNVKEDKFKWNLTTRSHHGFKGMWSCLEVAEACVGDVVC
NAQLASYLKACSANGNPCDLKQCQAAIRFFYQNIPFNIAQMLAFCDC
AQSDIPCQQSKEALHSKTCAVNMVPPPTCLSVIRSCQNDELCRRHYR
TFQSKCWQRVTRKCHEDENCISTLSKQDLTCSGSDDCKAAYIDILGT
VLQVQCTCRTITQSEESLCKIFQHMLHRKSCFNYPTLSNVKGMALYT
RKHANKITLTGFHSPFNGEVIYAAMCMTVTCGILLLVMVKLRTSRISSK
ARDPSSIQIPGEL (SEQ ID NO: 1797).

[0095] The amino acid sequence of a mature human GFRAL polypeptide is provided below:

QTNNCTYLREQCLRDANGCKHAWRVMEDACNDSDPGDPCKMRNS
SYCNLSIQYLVESNFQFKECLCTDDFYCTVNKLLGKKCINKSDNVKED
KFKWNLTTRSHHGFKGMWSCLEVAEACVGDVVCNAQLASYLKACS
ANGNPCDLKQCQAAIRFFYQNIPFNIAQMLAFCDCAQSDIPCQQSKE
ALHSKTCAVNMVPPPTCLSVIRSCQNDELCRRHYRTFQSKCWQRVT
RKCHEDENCISTLSKQDLTCSGSDDCKAAYIDILGTVLQVQCTCRTIT
QSEESLCKIFQHMLHRKSCFNYPTLSNVKGMALYTRKHANKITLTGF
HSPFNGEVIYAAMCMTVTCGILLLVMVKLRTSRISSKARDPSSIQIPGE
L(SEQ ID NO: 1798).

[0096] In some embodiments, GFRAL refers to a protein that is at least 55% identical to the amino acid sequence of mature human GFRAL (SEQ ID NO: 1798). Binding proteins, such as anti-GFRAL antibodies as disclosed herein, can bind GFRAL and/or modulate signaling, as described herein. In certain embodiments, antibodies described herein bind to human GFRAL.

[0097] Human GFRAL has an extracellular domain (*e.g.*, residues 20-351 of SEQ ID NO: 1797), a transmembrane domain (*e.g.*, residues 352-371 of SEQ ID NO: 1797) and a cytoplasmic domain (*e.g.*, residues 372-394 of SEQ ID NO: 1797).

[0098] A nucleic acid sequence encoding a precursor GFRAL polypeptide is provided below:

TTATTCTGGACAGTTACTCTTAAGAAAGTTGTCAGAAGAAACGCAT
CTGCCTTTTTTTCCAGGTGAACTGCCGTGAGTTGTCCAGCATGATA
GTGTTTATTTTCTTGGCTATGGGGTTAAGCTTGGAAAATGAATACA
CTTCCCAAACCAATAATTGCACATATTTAAGAGAGCAATGCTTACG
TGATGCAAATGGATGTAAACATGCTTGGAGAGTAATGGAAGATGC
CTGCAATGATTCAGATCCAGGTGACCCCTGCAAGATGAGGAATTC
ATCATACTGTAACCTGAGTATCCAGTACTTAGTGGAAAGCAATTTC
CAATTTAAAGAGTGTCTTTGCACTGATGACTTCTATTGTACTGTGA
ACAAACTGCTTGGAAAAAAATGTATCAATAAATCAGATAACGTGAA
AGAGGATAAATTCAAATGGAATCTAACTACACGTTCCCATCATGGA
TTCAAAGGGATGTGGTCCTGTTTGGAAGTGGCAGAGGCATGTGTA
GGGGATGTGGTCTGTAATGCACAGTTGGCCTCTTACCTTAAAGCT
TGCTCAGCAAATGGAAATCCGTGTGATCTGAAACAGTGCCAAGCA
GCCATACGGTTCTTCTATCAAAATATACCTTTTAACATTGCCCAGA
TGTTGGCTTTTTGTGACTGTGCTCAATCTGATATACCTTGTCAGCA
GTCCAAAGAAGCTCTTCACAGCAAGACATGTGCAGTGAACATGGT
TCCACCCCCTACTTGCCTCAGTGTAATTCGCAGCTGCCAAAATGA
TGAATTATGCAGGAGGCACTATAGAACATTTCAGTCAAAATGCTGG
CAGCGTGTGACTAGAAAGTGCCATGAAGATGAGAATTGCATTAGC
ACCTTAAGCAAACAGGACCTCACTTGTTCAGGAAGTGATGACTGC
AAAGCTGCTTACATAGATATCCTTGGGACGGTCCTTCAAGTGCAAT
GTACCTGTAGGACCATTACACAAAGTGAGGAATCTTTGTGTAAGAT
TTTCCAGCACATGCTTCATAGAAAATCATGTTTCAATTATCCAACC
CTGTCTAATGTCAAAGGCATGGCATTGTATACAAGAAAACATGCAA
ACAAAATCACTTTAACTGGATTTCATTCCCCCTTCAATGGAGAAGT
AATCTATGCTGCCATGTGCATGACAGTCACCTGTGGAATCCTTCT
GTTGGTTATGGTCAAGCTTAGAACTTCCAGAATATCAAGTAAAGCA
AGAGATCCTTCATCGATCCAAATACCTGGAGAACTCTGATTCATTA

GGAGTCATGGACCTATAACAATCACTCTTTTCTCTGCTTTTCTTCTT
TCCTCTTTTCTTCTCTCCTCTCCTCTCCTCTCTTCTCCTCTCCTCCC
CTCCCCTCTCTGTTTCTTTTTCTTTTTCTTTTCTTTTTTGTGGCGGA
GTTTTGCTCTTGTTGCCCAGGCTGCAGTACAATGGCTCAATCTCG
GTTCACTGCAACCTCTGCCTCCAAGGTTCAAGTGATTTTCCTGCCT
CAGCCTTCCCGAGTAGCTGGGATTACAGGTACCCGCCACCACGC
CCAGCTAATTTTTTTGTATTTTTAGTAGAGATGGGGTTTTGCCAAAT
TGGCCAGGGTGGTCTCAAACTCCTGACCTCAGGTGATCCACCCAC
CTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCAACCACG
TCAAGACAACAATCACTTTCTTTAAAGCAAATCCTACAGCTGGTCA
ACACCCTATTCCATCTGTCATCGAGAAAGAAAATGTTAAAATAGAC
TTAAAAATATTGCTTTGTTACATATAATAATATGGCATGATGATGTT
ATTTTTTTCTTAATACTCAAGAAAAAATATATGGTGGTATCTTTTAC
AACACTGGAACAGAAATAAAGTTTCCCTTGAAGGC(SEQ ID NO:
1799).

[0099] "GFRAL" as used herein encompasses human GFRAL and variants thereof, including but not limited to orthologs thereof, such as murine GFRAL, rat GFRAL, cyno GFRAL, and the like. GFRAL is not TGFβ RII (NCBI Ref. Seqs.: NM_001024847.2 (GI:133908632); NM_003242.5 (GI:133908633)) or orthologs thereof. GFRAL is distinct from TGFβ RI (NCBI Ref. Seqs.: NP_001124388.1 (GI:195963412); NP_004603.1 (GI:4759226)) or orthologs thereof. In certain embodiments, GFRAL may be a protein having the amino acid sequence that is at least 55%, 60%, 65%, 70%, 75%, 80%, 85%, 90%, 95%, 96%, 97%, 98%, 99% or more identical to SEQ ID NO: 1797. Such exemplary GFRAL proteins include chimpanzee (99%), cynomolgus monkey (92%), giant panda (82%), dog (81%), cat (80%), pig (77%), bovine (75%), mouse (70%), rat (70%), Chinese hamster (65%), and platypus (59%), as shown in **FIG. 1**.

[00100] An amino acid sequence of a GFRAL protein from cynomolgus monkey (cyno), scientific name *Macaca fascicularis*, is provided below, which includes a signal peptide sequence (underlined residues):

<u>mivliflalglsleneyts</u>QTNNCTYLREQCLHDANGCKHAWRIMEDACNDSD
PGDPCKMNNSSYCNLSIQYLVESNFRFKECLCTDDFYCTVNKLLGKE
CVNKSDNMREDKFKWNLTTHSHHGFKGMWSCLEVAEACVGDVVCN

AQLASYLKACSANGNPCDVKHCQAAIRFFYQNIPFNIAQMLAFCDCS
QSDIPCQQSKEALHSKPCALNMVPPPTCLNVIRSCQNDELCRRHYRT
FQSKCWQRVTRKCHEDENCISALSKQDLTCSGSDDCKAAYIDILGTV
LQVQCNCRTITQSEESLCKIFQHMLHRKSCFNYPTLSNVKSMALYTR
KHTNKITLTGFQSPFNGEVIYAAMCMTVTCGILLLVMVKLRTSRISSKA
RDPSLSQVPGEL(SEQ ID NO: 1800).

[00101] An encoding nucleic acid sequence of a cyno GFRAL protein is provided below:

ACCCACCAGAAAGAAGGAGCTCCAGACACATCTGAACGTCTGAAG
GAAGAAACTCCCGACACACCATCTTTAAGAAATGTAACTCTCACTG
CGAGGGTATGTGGCTTCATTCTTGAAGTCAGGGAGACCAAGAACC
CACCAATTGCAGGCACACAAGGGGTCCTTATTTTATTCAGGTGAA
CAGCTGTGAGTTGTCCAGCATGATAGTGCTTATTTTCTTGGCTTTG
GGGCTAAGCTTGGAAAATGAATACACTTCCCAAACCAATAATTGCA
CATATTTAAGAGAGCAATGCCTACATGATGCAAATGGATGTAAACA
TGCTTGGAGAATAATGGAAGATGCCTGCAATGATTCAGATCCAGG
TGACCCCTGCAAGATGAATAATTCATCATACTGTAACCTGAGTATC
CAGTACTTAGTGGAAAGCAATTTCCGATTTAAAGAGTGTCTTTGCA
CTGATGACTTCTATTGTACTGTGAACAAACTGCTTGGAAAAGAATG
TGTCAATAAATCAGATAACATGAGAGAGGATAAATTCAAATGGAAT
CTAACTACACATTCCCATCATGGATTCAAAGGGATGTGGTCCTGTT
TGGAAGTGGCAGAGGCATGTGTAGGGGATGTGGTCTGTAATGCA
CAGTTGGCCTCTTACCTTAAAGCTTGCTCAGCAAATGGAAATCCGT
GTGATGTGAAACACTGCCAAGCAGCCATACGGTTCTTCTATCAAA
ATATACCTTTTAACATTGCCCAGATGTTGGCTTTTTGTGACTGTTCT
CAATCTGATATACCTTGTCAGCAGTCCAAAGAAGCTCTTCACAGCA
AGCCATGTGCACTGAACATGGTTCCACCCCCTACTTGCCTCAATG
TAATTCGCAGCTGCCAAAATGATGAATTATGCAGGAGGCACTATA
GAACATTTCAGTCAAAATGCTGGCAGCGTGTGACTAGAAAGTGCC
ATGAAGATGAGAATTGCATTAGCGCCTTAAGCAAACAGGACCTCA
CATGTTCAGGAAGTGATGACTGCAAAGCTGCTTACATAGATATCCT
TGGGACAGTCCTTCAAGTGCAATGTAACTGTAGGACCATTACACA
AAGTGAGGAATCTTTGTGCAAGATTTTCCAGCACATGCTTCATAGA

AAATCATGTTTCAATTATCCAACCCTGTCTAATGTCAAAAGCATGG
CATTGTATACAAGAAAACATACAAACAAAATCACTTTAACTGGATTT
CAGTCCCCCTTCAATGGAGAAGTAATCTATGCTGCCATGTGCATG
ACAGTCACCTGTGGAATCCTTCTCTTGGTTATGGTCAAGCTTAGAA
CTTCCAGAATATCAAGTAAAGCAAGAGATCCTTCACTGAGCCAAGT
ACCTGGAGAACTCTGATTCATTAGGAGTCATGGACCCATAACAAT
CACTCCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTC
CCTTCCCTTCCCTTCC(SEQ ID NO: 1801).

[00102] An amino acid sequence of a GFRAL protein from mouse, scientific name *Mus musculus*, is provided below, which includes a signal peptide sequence (underlined residues):

mlvfiflavtlssenesssQTNDCAHLIQKCLIDANGCEQSWRSMEDTCLTPG
DSCKINNSLHCNLSIQALVEKNFQFKECLCMDDLHCTVNKLFGKKCT
NKTDNMEKDNKDKWNLTTTPFYHGFKQMQSCLEVTEACVGDVVCN
AQLALYLKACSANGNLCDVKHCQAAIRFFYQNMPFNTAQMLAFCDC
AQSDIPCQQSKETLHSKPCALNIVPPPTCLSVIHTCRNDELCRTHYRT
FQTECWPHITGKCHEDETCISMLGKQDLTCSGSESCRAAFLGTFGTV
LQVPCACRGVTQAEEHVCMIFQHMLHSKSCFNYPTPNVKDISSYEKK
NSKEITLTGFNSFFNGELLYVVVCMAVTCGILFLVMLKLRIQSEKRDPS
SIEIAGGVIIQ(SEQ ID NO: 1802).

[00103] An encoding nucleic acid sequence of a mouse GFRAL protein is provided below:

AACAATTGAATTTGAATACAATTAGGAAAGTTCACAGCTCAAAACA
AACTGGTGAGGAACAGCTGACACCAGAAGCTGACTCTAATTGGCT
GGCTCTTAGGAAGCAAAACCTTTACACAGAAACTTCAGTTGGGAT
GTTGGTTGGTGTCAGTTCATCCGCCTTTCTCCCAGGGAGACCATC
TTGAGTTGTCCAACATGCTAGTGTTCATTTTCCTGGCTGTTACGTT
AAGCTCAGAAAATGAATCCTCTTCCCAAACAAATGATTGTGCACAT
TTAATACAGAAATGCTTGATTGATGCAAATGGCTGTGAGCAGTCAT
GGAGATCAATGGAAGACACCTGCCTTACTCCAGGTGACTCCTGCA
AGATAAATAATTCACTACATTGTAACCTGAGTATCCAGGCTTTGGT
GGAAAAAAATTTCCAATTTAAAGAGTGTCTTTGTATGGATGACCTC

CACTGTACAGTAAACAAACTTTTTGGAAAAAAGTGCACCAATAAGA
CAGATAACATGGAAAAGGACAATAAAGATAAATGGAATCTAACTAC
TACTCCTTTCTATCATGGATTCAAACAGATGCAGTCTTGTTTGGAG
GTGACAGAGGCGTGTGTAGGGGATGTGGTTTGTAATGCACAGTTG
GCCCTTTACCTTAAAGCATGCTCAGCAAATGGAAATCTGTGTGATG
TGAAACACTGCCAAGCAGCCATACGGTTCTTCTATCAAAATATGCC
TTTTAACACTGCCCAGATGTTGGCTTTTTGTGACTGTGCTCAATCT
GATATACCCTGTCAGCAATCCAAAGAAACTCTTCACAGCAAGCCAT
GTGCACTGAATATAGTTCCACCCCCCACTTGCCTCAGTGTAATTCA
CACTTGCCGAAATGATGAATTATGCAGGACACACTACCGAACATT
CCAGACAGAATGCTGGCCCCACATAACTGGGAAGTGCCATGAAG
ATGAGACCTGCATTAGCATGTTAGGCAAGCAAGACCTTACTTGTTC
TGGGAGTGAGAGCTGCAGGGCTGCCTTCCTAGGAACCTTTGGGA
CAGTCCTGCAAGTACCCTGTGCTTGCAGGGGCGTTACACAGGCT
GAAGAACACGTGTGCATGATTTTCCAGCACATGCTTCATAGCAAAT
CGTGTTTCAATTACCCAACTCCTAATGTCAAAGACATTTCCTCATAT
GAAAAAAAGAATTCAAAAGAAATTACTCTGACTGGATTCAATTCTTT
CTTCAATGGAGAACTACTCTATGTTGTTGTGTGCATGGCAGTTACC
TGTGGAATTCTTTTCTTGGTGATGCTCAAGTTAAGGATACAAAGTG
AAAAAAGAGATCCCTCATCCATCGAAATAGCTGGAGGTGTCATCA
TTCAGTGAGCTGCAGATCACTTACCAACCACATGTCTGTGTGACTA
ACCAATGGAAAATTACATTTGCCAATAACGCAATTTAAGATGGATT
TGACAATATTTAGTCATTATATGTAACAGTGACTGGTACAGTAATAT
ACCACAATGATCACAGATCTGTTTTTGTTTTTGTTTTTAATGTTTGA
GTAAATACTTGTTGTGGTGTCATAACTAGTTGATAACATTTTCTTTA
AAGACAACAGGTGTCATGTAAAATGTGACAAATTTGCTGGAAGACT
ATCAATCCACATATCAACTTCTATCTTATGGAACTAATCATAATTAG
TGTGTGCAGTTTTCTGAACAAGGTTATAGTTTTCCATTAAGTTGGT
AAAATTAAAATGCTAAGTAGAATATTGAGTATACTTGTTATTTATAT
ATTCTTACTTAGTGTCCAATCATTAAACAAATTGGTAACATTGAACA
TATTTAGTTAGATGACTGCTTATGAAAATAAGAACTGACATCTTACA
AATTTTATAATTTAAATAGTATTGAATTTTACTTTTTATTTGGTATGT
TAAGATTCATAATATATAAAGCAGCTACATTGGTTGAGAAAAGTCA
ATGGTTACTCCAGTAATGATATACTTTGTGAATTTATTTATTTTTGC

TAATTAATGATCCTGAATGTAATCATGATGAAATAAAAAAGACATAC
TTAAATTGCT (SEQ ID NO: 1803).

[00104] An amino acid sequence of a GFRAL protein from rat, scientific name *Rattus norvegicus*, is provided below, which includes a signal peptide sequence (underlined residues):

mlvfiflavrlssenesssQTNDCAYFMRQCLTDTDGCKQSWRSMEDACLVS
GDSCKINNPLPCNLSIQSLVEKHFQFKGCLCTDDLHCTVNKIFGKKCT
NKTDSMKKDNKYKRNLTTPLYHDTGFKQMQSCLEVTEACVGDVVCN
AQLALYLKACTANGNLCDVKHCQAAIRFFYQNMPFNTAQMLAFCDC
AQSDIPCQQSKETLHSKPCALNVVPPPTCLSVIHTCRNDELCRTYYRT
FQTECWPHVAGKCREDETCISMLGKQDLTCSGSDSCRAAYLGTFGT
VLQVPCACRSITQGEEPLCMAFQHMLHSKSCFNYPTPNVKDISSYER
KHSKEITLTGFNSPFSGELIYVVVCMVVTSGILSLVMLKLRIPSKKRDP
APIEIAGAVIIQ(SEQ ID NO: 1804).

[00105] An encoding nucleic acid sequence of a rat GFRAL protein is provided below:

ACAAATGATTGTGCATATTTCATGCGGCAATGCTTGACTGATACAG
ATGGCTGTAAGCAGTCATGGAGATCAATGGAAGACGCCTGCCTTG
TCTCAGGTGACTCCTGCAAGATAAATAATCCATTGCCTTGTAACCT
GAGTATCCAGTCTTTGGTGGAAAAACATTTTCAATTTAAAGGGTGT
CTTTGCACTGATGATCTCCACTGTACAGTAAACAAAATTTTTGGAA
AAAAGTGCACCAATAAGACAGATAGCATGAAAAAAGATAATAAATA
CAAACGGAATCTAACTACTCCTTTATATCATGATACAGGATTCAAA
CAGATGCAGTCTTGTTTGGAAGTGACAGAGGCGTGTGTAGGGGAT
GTGGTTTGTAATGCACAGTTGGCCCTTTACCTTAAAGCATGCACA
GCAAATGGAAATCTGTGTGATGTGAAACACTGCCAAGCGGCCATA
CGGTTCTTCTATCAAAATATGCCTTTTAACACTGCCCAGATGTTGG
CTTTTTGTGACTGTGCTCAATCTGATATACCCTGTCAACAATCCAA
AGAAACTCTTCACAGCAAGCCATGTGCACTGAACGTAGTTCCACC
CCCCACTTGCCTCAGTGTAATTCACACTTGCCGAAATGATGAATTA
TGCAGGACATACTACCGAACATTCCAGACAGAATGCTGGCCCCAT
GTGGCTGGGAAGTGTCGTGAAGATGAGACCTGCATTAGTATGCTG

GGCAAGCAAGACCTTACTTGTTCTGGGAGTGACAGCTGCAGGGC
AGCCTACCTAGGAACCTTCGGGACAGTCCTTCAGGTGCCGTGTG
CTTGCAGAAGCATCACACAGGGTGAAGAACCCTTGTGCATGGCTT
TCCAGCACATGCTTCACAGCAAATCATGTTTCAATTACCCAACTCC
TAATGTCAAAGACATTTCCTCATATGAAAGAAAGCATTCAAAAGAA
ATTACCCTGACTGGATTCAATTCTCCCTTCAGTGGAGAACTAATCT
ATGTTGTTGTGTGCATGGTAGTTACCAGCGGGATTCTTTCCTTGGT
GATGCTCAAGCTAAGGATACCTAGTAAGAAAAGAGACCCCGCGCC
CATCGAAATAGCTGGAGCTGTCATCATTCAGTGA(SEQ ID NO:
1805).

[00106] A GFRAL protein or GFRAL also refers to a protein that has one or more alteration in the amino acid residues (*e.g.*, at locations that are not conserved across variants and/or species) while retaining the conserved domains and having a biological activity similar to the naturally-occurring GFRAL. GFRAL may be encoded by nucleic acid sequences that vary in one or more bases from a naturally-occurring DNA sequence but still translate into an amino acid sequence that corresponds to the a naturally-occurring protein due to degeneracy of the genetic code. A GFRAL protein also refers to a protein that differs from the naturally-occurring sequences of GFRAL by one or more conservative substitutions and/or tags and/or conjugates.

[00107] The term “GFRAL” or “GFRAL protein” encompasses “full-length” unprocessed GFRAL as well as any form of GFRAL that results from processing in the cell. The term GFRAL or “GFRAL protein” also includes: allelic variants (*e.g.,* SNP variants); splice variants; isoforms; fragments; derivatives; substitution, deletion, and insertion variants; fusion polypeptides; and interspecies homologs, preferably, which retain GFRAL activity and/or are sufficient to generate an anti-GFRAL immune response. As those skilled in the art will appreciate, an anti-GFRAL antibody provided herein can bind to a GFRAL protein, including a GFRAL polypeptide fragment, a GFRAL antigen, and/or a GFRAL epitope. An epitope may be part of a larger GFRAL antigen, which may be part of a larger GFRAL polypeptide fragment, which, in turn, may be part of a larger GFRAL protein. A GFRAL protein may exist in a native or denatured form. GFRAL proteins described herein may be isolated from a variety of sources, such as from human tissue types or from another source, or prepared by recombinant or synthetic methods. A GFRAL protein may

comprise a polypeptide having the same amino acid sequence as a corresponding GFRAL polypeptide derived from nature. GFRAL proteins encompass truncated or secreted forms of a GFRAL polypeptide (*e.g.,* an extracellular domain sequence), variant forms (*e.g.,* alternatively spliced forms) and allelic variants of the polypeptide. GFRAL polypeptides described herein (*e.g.*, human GFRAL) may be isolated from a variety of sources, such as from human tissue types or from another source, or prepared by recombinant or synthetic methods.

[00108] A GFRAL protein can lack at least 5, at least 10, up to at least 50 or more amino acids relative to a naturally-occurring full-length GFRAL polypeptide. For example, the GFRAL protein may not contain the signal sequence based on the amino acid sequence of a naturally-occurring GFRAL polypeptide. A GFRAL protein may also contain the same or similar post-translational modifications as a naturally-occurring GFRAL polypeptide or may not contain a post-translational modification. For example, the protein may have the same or similar glycosylation pattern as those of a naturally-occurring GFRAL polypeptide or may contain no glycosylation. In other embodiments, the GFRL protein includes mutations relative to the sequence of naturally-occurring GFRAL protein that introduce a glycosylation site at a location not present in the naturally-occurring GFRAL protein.

[00109] In certain embodiments, a GFRAL protein may be expressed by a recombinant cell genetically modified to express the GFRAL protein on its cell surface. The cell may be present in a composition that includes an isolated GDF15 protein. In certain cases, the cell may additionally express a RET protein, for example the cell may express a RET protein endogenously without being genetically modified to include an exogenous sequence encoding the RET protein. In other embodiments, the cell may not express detectable levels of a RET protein and may be genetically modified to express a RET protein from an exogenous sequence.

[00110] Also disclosed herein are fragments of a GFRAL protein, such as GFRAL fragments that lack an intracellular domain present in native GFRAL protein, or the intracellular domain and the transmembrane domain present in native GFRAL protein, such as a native GFRAL depicted in **FIG. 1**. As noted above, a fragment of a GFRAL protein may also lack a signal sequence present in the native GFRAL and may or may not include a heterologous signal sequence. The fragment may lack the

intracellular domain present in a native GFRAL protein but include the transmembrane domain.

[00111] The term "GFRAL-extracellular domain" ("GFRAL-ECD") includes full-length GFRAL ECDs, GFRAL ECD fragments, and GFRAL ECD variants. As used herein, the term "GFRAL ECD" refers to a GFRAL polypeptide with or without a signal peptide that lacks the intracellular and/or transmembrane domains. In some embodiments, a GFRAL ECD refers to a protein having the amino acid sequence that is at least 70% identical to the amino acid sequence of a human full-length GFRAL ECD having the amino acid sequence:

QTNNCTYLREQCLRDANGCKHAWRVMEDACNDSDPGDPCKMRNS
SYCNLSIQYLVESNFQFKECLCTDDFYCTVNKLLGKKCINKSDNVKED
KFKWNLTTRSHHGFKGMWSCLEVAEACVGDVVCNAQLASYLKACS
ANGNPCDLKQCQAAIRFFYQNIPFNIAQMLAFCDCAQSDIPCQQSKE
ALHSKTCAVNMVPPPTCLSVIRSCQNDELCRRHYRTFQSKCWQRVT
RKCHEDENCISTLSKQDLTCSGSDDCKAAYIDILGTVLQVQCTCRTIT
QSEESLCKIFQHMLHRKSCFNYPTLSNVKGMALYTRKHANKITLTGF
HSPFNGE (SEQ ID NO: 1806).

[00112] The term "full-length GFRAL ECD", as used herein, refers to a GFRAL ECD that extends to the last amino acid of the extracellular domain, and may or may not include an N-terminal signal peptide. However, it is noted that "full-length GFRAL ECD" also encompasses a GFRAL-ECD that is extended by 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids on the C-terminus to include amino acids residues of the transmembrane domain provided that the polypeptide is soluble. In other words, such a GFRAL ECD lacks a sufficient length of a transmembrane domain such that it is not anchored into a cell membrane. The phrase "full-length GFRAL ECD" also encompasses a GFRAL-ECD that is extended by 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids on the N-terminus to include amino acids residues of the signal peptide. In certain embodiments, a GFRAL ECD refers to a contiguous amino acid sequence that is at least 70%, 75%, 80%, 85%, 90%, 95%, 96%, 97%, 98%, 99% or more identical to a contiguous amino acid sequence depicted in **FIG. 1** and lacks at least 30, 33, 35, 40, 45, 50, or 55 amino acids or more at the C-terminus of the GFRAL sequences depicted in **FIG. 1**.

[00113] A GFRAL ECD is not an ECD of TGFβ RII (Acc. Nos.: NM_001024847.2; NM_003242.5) or orthologs thereof. GFRAL ECD is distinct from ECD of TGFβ RI (Acc. Nos.: NP_001124388.1; NP_004603.1) or orthologs thereof. In certain embodiments, a GFRAL ECD may be a protein having the amino acid sequence that is at least 70%, 75%, 80%, 85%, 90%, 95%, 96%, 97%, 98%, 99% or more identical to SEQ ID NO: 1806.

[00114] As used herein, the term "GFRAL ECD fragment" refers to a GFRAL ECD having one or more residues deleted from the N and/or C terminus of the full-length ECD and that retains the ability to bind to GDF15. In some instances, a GFRAL ECD fragment may or may not include an N-terminal signal peptide. In some instances, a GFRAL ECD fragment is a human GFRAL ECD fragment that lacks 1, 5, 10, 15, 16, 17, 18, or 19 residues present at the N-terminus of the sequence:

MIVFIFLAMGLSLENEYTSQTNNCTYLREQCLRDANGCKHAWRVME
DACNDSDPGDPCKMRNSSYCNLSIQYLVESNFQFKECLCTDDFYCT
VNKLLGKKCINKSDNVKEDKFKWNLTTRSHHGFKGMWSCLEVAEAC
VGDVVCNAQLASYLKACSANGNPCDLKQCQAAIRFFYQNIPFNIAQM
LAFCDCAQSDIPCQQSKEALHSKTCAVNMVPPPTCLSVIRSCQNDEL
CRRHYRTFQSKCWQRVTRKCHEDENCISTLSKQDLTCSGSDDCKAA
YIDILGTVLQVQCTCRTITQSEESLCKIFQHMLHRKSCFNYPTLSNVKG
MALYTRKHANKITLTGFHSPFNGE (SEQ ID NO: 1807)

[00115] Another exemplary GFRAL ECD fragment comprises the following amino acid sequence, which corresponds to Q20 to C316 of a full-length human precursor GFRAL protein:

QTNNCTYLREQCLRDANGCKHAWRVMEDACNDSDPGDPCKMRNS
SYCNLSIQYLVESNFQFKECLCTDDFYCTVNKLLGKKCINKSDNVKED
KFKWNLTTRSHHGFKGMWSCLEVAEACVGDVVCNAQLASYLKACS
ANGNPCDLKQCQAAIRFFYQNIPFNIAQMLAFCDCAQSDIPCQQSKE
ALHSKTCAVNMVPPPTCLSVIRSCQNDELCRRHYRTFQSKCWQRVT
RKCHEDENCISTLSKQDLTCSGSDDCKAAYIDILGTVLQVQCTCRTIT
QSEESLCKIFQHMLHRKSC (SEQ ID NO: 1808)

[00116] Yet another exemplary GFRAL ECD fragment comprises the following amino acid sequence, which corresponds to W115 to E351 of a full-length human precursor GFRAL protein:

WNLTTRSHHGFKGMWSCLEVAEACVGDVVCNAQLASYLKACSANG
NPCDLKQCQAAIRFFYQNIPFNIAQMLAFCDCAQSDIPCQQSKEALHS
KTCAVNMVPPPTCLSVIRSCQNDELCRRHYRTFQSKCWQRVTRKCH
EDENCISTLSKQDLTCSGSDDCKAAYIDILGTVLQVQCTCRTITQSEE
SLCKIFQHMLHRKSCFNYPTLSNVKGMALYTRKHANKITLTGFHSPFN
GE (SEQ ID NO: 1809).

The above exemplary GFRAL ECD fragment was used in various methods as described in the Examples, including to produce a crystal of a complex comprising a GFRAL protein and a GDF15 protein or a GFRAL protein and an exemplary anti-GFRAL antibody.

[00117] Within a GFRAL protein or GFRAL ECD there are three domains - domain 1 (D1), domain 2 (D2) and domain 3 (D3). In some embodiments, the amino acid sequence of an exempalry D1 domain are residues Q20 to S130 of SEQ ID NO: 1797. In some embodiments, the amino acid sequence of an exemplary D2 domain are residues C131 to C210 of SEQ ID NO: 1797. In some embodiments, the amino acid sequence of an exemplary D3 domain are residues C220 to C316 of SEQ ID NO: 1797. Certain properties of a GFRAL protein can be attributed to the activity and/or binding of these domains, including within the ECD. For example, as described herein, amino acid residues within D2 are identified as being core interaction interface amino acids and/or boundary interaction interface amino acids for a GFRAL protein binding to a GDF15 protein. Likewise, as described herein, amino acid residues within D3 are identified as being core interaction interface amino acids and/or boundary interaction interface amino acids for a GFRAL protein binding to a RET protein.

[00118] The term “core interaction interface amino acid” or grammatical equivalent thereof refers to an amino acid residue of a given protein that has at least one atom within less or equal to 4.5 Å from an interacting protein (*e.g.*, an amino acid of a GFRAL protein that interacts with a GDF15 protein or a RET protein). A distance of

4.5 Å allows for atoms within a van der Waals radius plus a possible water-mediated hydrogen bond to form a bond with the interacting protein.

[00119] The term "boundary interaction interface amino acid" or grammatical equivalent thereof refers to an amino acid residue of a given protein that has at least one atom within less than or equal to 5 Å from a core interface amino acid on the given protein (*e.g.*, an amino acid of a GFRAL protein that is within 5 Å of a core interaction interface amino acid of a GFRAL proteion that interacts with a GDF15 protein or a RET protein). A distance of less than or equal to 5 Å allows proteins binding to residues less than 5 Å away from core interaction interface amino acids on a given protein to be within the van der Waals radius of an interacting protein.

[00120] As used herein, the term "GFRAL ECD variants" refers to GFRAL ECDs that contain amino acid additions, deletions, or substitutions and that remain capable of binding to GDF15. Such variants may be at least 80%, 85%, 90%, 92%, 95%, 97%, 98%, or 99% identical to a parent GFRAL ECD.

[00121] "Growth differentiation factor 15" or "GDF15," also known in the art as MIC-1 (macrophage inhibitory cytokine-1), PDF (prostate differentiation factor), PLAB (placental bone morphogenetic protein), NAG-1 (non-steroidal anti-inflammatory drugs (NSAIDs) activated gene), TGF-PL, and PTGFB, is a member of the transforming growth factor β (TGF- β) super-family. GDF15, which is synthesized as a 62 kDa intracellular precursor protein that is subsequently cleaved by a furin-like protease, is secreted as a 25 kDa disulfide-linked protein (see, *e.g.*, Fairlie et al., *J. Leukoc. Biol* 65:2-5 (1999)). GDF15 mRNA is seen in several tissues, including liver, kidney, pancreas, colon and placenta, and GDF15 expression in liver can be significantly up-regulated during injury of organs such as the liver, kidneys, heart and lungs.

[00122] The GDF15 precursor is a 308 amino acid polypeptide (NCBI Ref. Seq. NP_004855.2; GI:153792495) containing a 29 amino acid signal peptide, a 167 amino acid pro-domain, and a mature domain of 112 amino acids which is excised from the pro-domain by furin-like proteases.

[00123] An amino acid sequence of a precursor human GDF15 polypeptide is provided below:

MPGQELRTVNGSQMLLVLLVLSWLPHGGALSLAEASRASFPGPSEL
HSEDSRFRELRKRYEDLLTRLRANQSWEDSNTDLVPAPAVRILTPEV
RLGSGGHLHLRISRAALPEGLPEASRLHRALFRLSPTASRSWDVTRP
LRRQLSLARPQAPALHLRLSPPPSQSDQLLAESSSARPQLELHLRPQ
AARGRRRARARNGDHCPLGPGRCCRLHTVRASLEDLGWADWVLSP
REVQVTMCIGACPSQFRAANMHAQIKTSLHRLKPDTVPAPCCVPASY
NPMVLIQKTDTGVSLQTYDDLLAKDCHCI (SEQ ID NO: 1810)

Such a 308-amino acid GDF15 polypeptide is referred to as a "full-length" GDF15 polypeptide; a 112-amino acid GDF15 polypeptide (amino acids 197-308 of "full-length" GDF15) is a "mature" GDF15 polypeptide.

[00124] “GDF15” as used herein includes a protein having an amino acid sequence that is at least 65% identical to the amino acid sequence of a mature human GDF15 polypeptide. An amino acid sequence of a mature human GDF15 polypeptide is provided below:

ARNGDHCPLGPGRCCRLHTVRASLEDLGWADWVLSPREVQVTMCI
GACPSQFRAANMHAQIKTSLHRLKPDTVPAPCCVPASYNPMVLIQKT
DTGVSLQTYDDLLAKDCHCI (SEQ ID NO: 1811)

[00125] The above exemplary mature human GDF15 was used in the various methods described as in the Examples, including to produce a crystal of a complex comprising a GFRAL protein and a GDF15 protein.

[00126] Unless otherwise indicated, the term "GDF15" refers to a 112 amino acid mature human sequence (*e.g.*, SEQ ID NO: 1811). In addition, numerical references to particular GDF15 residues refer to a 112 amino acid mature sequence (*e.g.*, residue 1 is Ala (A), and residue 112 is Ile (I) of SEQ ID NO: 1811). For example, while a GDF15 precursor amino acid sequence predicts three excision sites, resulting in three putative forms of "mature" human GDF15 (*e.g.*, 110, 112 and 115 amino acids), the 112 amino acid mature sequence is accepted as being correct.

[00127] Within the context of the present disclosure, “GDF15” or “GDF15 protein” includes GDF15 orthologs, and modified forms thereof, from other mammalian species, and their use, including mouse (NP_035949; GI:170784848), chimpanzee (XP_009433302.1; GI:694973734), orangutan (XP_009251261.1 GI:686757768), Rhesus monkey (EHH29815; GI:355703324), giant panda (XP_002912774;

GI:301753921), gibbon (XP_004089328.1; GI:441627981), guinea pig (XP_003465238; GI:348558868), ferret (AER98997; GI:355689945), cow (NP_001193227; GI:329664989), pig (NP_001167527; GI:291291599), dog (XP_541938; GI:57101740) and platypus (Ornithorhynchus anatinus; AFV61279; GI:410111209). Such exemplary GDF15 proteins are shown in **FIG. 2**, which includes an alignment of the various exemplary GDF15 proteins. A mature form of human GDF15 has approximately 67% amino acid identity to the mouse ortholog.

[00128] "RET," also known in the art as Ret Proto-Oncogene, Cadherin-Related Family Member 16, Rearranged During Transfection, RET Receptor Tyrosine Kinase, Cadherin Family Member 12, Proto-Oncogene C-Ret, EC 2.7.10.1, CDHF12, CDHR16, RET51, PTC, Hydroxyaryl-Protein Kinase, RET Transforming Sequence, and Receptor Tyrosine Kinase, is one of the receptor tyrosine kinases, cell-surface molecules that transduce signals for cell growth and differentiation. RET acts as a co-receptor and is known as a primary signaling receptor for glial-cell-line-derived neurotrophic factor (GDNF) ligands (in human, GDNF, artemin, neurturin, and persephin) when bound to members of the GDNF receptor alpha (GFRα) co-receptors. A RET protein (*e.g.*, a RET-ECD) comprises 4 consecutive cadherin-like domains (CLD1-CLD4) followed by a membrane proximal cystine rich domain (CRD). As disclosed herein, a RET protein is a co-receptor with a GFRAL protein and a GDF15 protein (*e.g.*, acting as a co-receptor with a RET protein). A receptor complex, as described herein, includes a GFRAL protein, such as a RET/GFRAL complex, a GFRAL/GDF15 complex, and a RET/GFRAL/GDF15 complex.

[00129] As used herein, "Ret" or "RET" refers to a protein having the amino acid sequence that is at least 75% identical, e.g., 77%, 79%, 80%, 85%, 90%, 95%, 96%, 97%, 98%, 99% or more identical to the amino acid sequence of SEQ ID NO: 1813. RET is distinct from TGFβ RI and TGFβ RII. SEQ ID NO: 1812 is the sequence of a mature human RET9 that lacks a signal peptide:

KVALGLYFSRDAYWEKLYVDQAAGTPLLYVHALRDAPEEVPSFRLG
QHLYGTYRTRLHENNWICIQEDTGLLYLNRSLDHSSWEKLSVRNRGF
PLLTVYLKVFLSPTSLREGECQWPGCARVYFSFFNTSFPACSSLKPR
ELCFPETRPSFRIRENRPPGTFHQFRLLPVQFLCPNISVAYRLLEGEG
LPFRCAPDSLEVSTRWALDREQREKYELVAVCTVHAGAREEVVMVP
FPVTVYDEDDSAPTFPAGVDTASAVVEFKRKEDTVVATLRVFDADVV

PASGELVRRYTSTLLPGDTWAQQTFRVEHWPNETSVQANGSFVRAT
VHDYRLVLNRNLSISENRTMQLAVLVNDSDFQGPGAGVLLLHFNVSV
LPVSLHLPSTYSLSVSRRARRFAQIGKVCVENCQAFSGINVQYKLHSS
GANCSTLGVVTSAEDTSGILFVNDTKALRRPKCAELHYMVVATDQQT
SRQAQAQLLVTVEGSYVAEEAGCPLSCAVSKRRLECEECGGLGSPT
GRCEWRQGDGKGITRNFSTCSPSTKTCPDGHCDVVETQDINICPQD
CLRGSIVGGHEPGEPRGIKAGYGTCNCFPEEEKCFCEPEDIQDPLCD
ELCRTVIAAAVLFSFIVSVLLSAFCIHCYHKFAHKPPISSAEMTFRRPA
QAFPVSYSSSGARRPSLDSMENQVSVDAFKILEDPKWEFPRKNLVL
GKTLGEGEFGKVVKATAFHLKGRAGYTTVAVKMLKENASPSELRDLL
SEFNVLKQVNHPHVIKLYGACSQDGPLLLIVEYAKYGSLRGFLRESRK
VGPGYLGSGGSRNSSSLDHPDERALTMGDLISFAWQISQGMQYLAE
MKLVHRDLAARNILVAEGRKMKISDFGLSRDVYEEDSYVKRSQGRIP
VKWMAIESLFDHIYTTQSDVWSFGVLLWEIVTLGGNPYPGIPPERLFN
LLKTGHRMERPDNCSEEMYRLMLQCWKQEPDKRPVFADISKDLEKM
MVKRRDYLDLAASTPSDSLIYDDGLSEEETPLVDCNNAPLPRALPST
WIENKLYGRISHAFTRF (SEQ ID NO: 1812)

[00130] The amino acid sequence of a full-length precursor human RET protein is provided below, which includes a signal peptide sequence (underlined and lowercase residues):

<u>makatsgaaglrllllllpllgkvalg</u>LYFSRDAYWEKLYVDQAAGTPLLYVHALR
DAPEEVPSFRLGQHLYGTYRTRLHENNWICIQEDTGLLYLNRSLDHS
SWEKLSVRNRGFPLLTVYLKVFLSPTSLREGECQWPGCARVYFSFF
NTSFPACSSLKPRELCFPETRPSFRIRENRPPGTFHQFRLLPVQFLCP
NISVAYRLLEGEGLPFRCAPDSLEVSTRWALDREQREKYELVAVCTV
HAGAREEVVMVPFPVTVYDEDDSAPTFPAGVDTASAVVEFKRKEDT
VVATLRVFDADVVPASGELVRRYTSTLLPGDTWAQQTFRVEHWPNE
TSVQANGSFVRATVHDYRLVLNRNLSISENRTMQLAVLVNDSDFQGP
GAGVLLLHFNVSVLPVSLHLPSTYSLSVSRRARRFAQIGKVCVENCQ
AFSGINVQYKLHSSGANCSTLGVVTSAEDTSGILFVNDTKALRRPKCA
ELHYMVVATDQQTSRQAQAQLLVTVEGSYVAEEAGCPLSCAVSKRR
LECEECGGLGSPTGRCEWRQGDGKGITRNFSTCSPSTKTCPDGHC
DVVETQDINICPQDCLRGSIVGGHEPGEPRGIKAGYGTCNCFPEEEK

CFCEPEDIQDPLCDELCRTVIAAAVLFSFIVSVLLSAFCIHCYHKFAHK
PPISSAEMTFRRPAQAFPVSYSSSGARRPSLDSMENQVSVDAFKILE
DPKWEFPRKNLVLGKTLGEGEFGKVVKATAFHLKGRAGYTTVAVKM
LKENASPSELRDLLSEFNVLKQVNHPHVIKLYGACSQDGPLLLIVEYA
KYGSLRGFLRESRKVGPGYLGSGGSRNSSSLDHPDERALTMGDLIS
FAWQISQGMQYLAEMKLVHRDLAARNILVAEGRKMKISDFGLSRDVY
EEDSYVKRSQGRIPVKWMAIESLFDHIYTTQSDVWSFGVLLWEIVTLG
GNPYPGIPPERLFNLLKTGHRMERPDNCSEEMYRLMLQCWKQEPDK
RPVFADISKDLEKMMVKRRDYLDLAASTPSDSLIYDDGLSEEETPLVD
CNNAPLPRALPSTWIENKLYGRISHAFTRF (SEQ ID NO: 1813)

[00131] Accordingly, “RET” or a “RET protein” as used herein encompasses human RET and variants thereof, including but not limited to orthologs thereof, such as murine RET, cyno RET, and the like. In certain embodiments, RET may be a protein having the amino acid sequence that is at least 75%, 80%, 85%, 90%, 95%, 96%, 97%, 98%, 99% or more identical to SEQ ID NO: 1813.

[00132] In certain embodiments, an isolated RET-extracellular domain (RET-ECD) polypeptide is provided. A RET-ECD may be bound to a ligand such as a GFRAL proteion when present in an isolated protein complex of the present disclosure. The term “RET-extracellular domain” (“RET-ECD”) includes full-length RET ECDs, RET ECD fragments, and RET ECD variants. As used herein, the term “RET ECD” refers to a RET polypeptide with or without a signal peptide that lacks the intracellular and transmembrane domains. In some embodiments, a RET ECD refers to a protein having an amino acid sequence that is at least 75% identical to the amino acid sequence of human full-length RET ECD having the amino acid sequence:

KVALGLYFSRDAYWEKLYVDQAAGTPLLYVHALRDAPEEVPSFRLG
QHLYGTYRTRLHENNWICIQEDTGLLYLNRSLDHSSWEKLSVRNRGF
PLLTVYLKVFLSPTSLREGECQWPGCARVYFSFFNTSFPACSSLKPR
ELCFPETRPSFRIRENRPPGTFHQFRLLPVQFLCPNISVAYRLLEGEG
LPFRCAPDSLEVSTRWALDREQREKYELVAVCTVHAGAREEVVMVP
FPVTVYDEDDSAPTFPAGVDTASAVVEFKRKEDTVVATLRVFDADVV
PASGELVRRYTSTLLPGDTWAQQTFRVEHWPNETSVQANGSFVRAT
VHDYRLVLNRNLSISENRTMQLAVLVNDSDFQGPGAGVLLLHFNVSV
LPVSLHLPSTYSLSVSRRARRFAQIGKVCVENCQAFSGINVQYKLHSS

GANCSTLGVVTSAEDTSGILFVNDTKALRRPKCAELHYMVVATDQQT
SRQAQAQLLVTVEGSYVAEEAGCPLSCAVSKRRLECEECGGLGSPT
GRCEWRQGDGKGITRNFSTCSPSTKTCPDGHCDVVETQDINICPQD
CLRGSIVGGHEPGEPRGIKAGYGTCNCFPEEEKCFCEPEDIQDPLCD
ELCR (SEQ ID NO: 1814)

[00133] In another exemplary embodiment, the a RET ECD refers to a protein having a amino acid sequence that is at least 75% identical to the amino acid sequence of a human full-length RET ECD having the amino acid sequence:

LYFSRDAYWEKLYVDQAAGTPLLYVHALRDAPEEVPSFRLGQHLYGT
YRTRLHENNWICIQEDTGLLYLNRSLDHSSWEKLSVRNRGFPLLTVY
LKVFLSPTSLREGECQWPGCARVYFSFFNTSFPACSSLKPRELCFPE
TRPSFRIRENRPPGTFHQFRLLPVQFLCPNISVAYRLLEGEGLPFRCA
PDSLEVSTRWALDREQREKYELVAVCTVHAGAREEVVMVPFPVTVY
DEDDSAPTFPAGVDTASAVVEFKRKEDTVVATLRVFDADVVPASGEL
VRRYTSTLLPGDTWAQQTFRVEHWPNETSVQANGSFVRATVHDYRL
VLNRNLSISENRTMQLAVLVNDSDFQGPGAGVLLLHFNVSVLPVSLH
LPSTYSLSVSRRARRFAQIGKVCVENCQAFSGINVQYKLHSSGANCS
TLGVVTSAEDTSGILFVNDTKALRRPKCAELHYMVVATDQQTSRQAQ
AQLLVTVEGSYVAEEAGCPLSCAVSKRRLECEECGGLGSPTGRCEW
RQGDGKGITRNFSTCSPSTKTCPDGHCDVVETQDINICPQDCLRGSI
VGGHEPGEPRGIKAGYGTCNCFPEEEKCFCEPEDIQDPLCDELCR
(SEQ ID NO: 1815)

[00134] The term “full-length RET ECD”, as used herein, refers to a RET ECD that extends to the last amino acid of an extracellular domain, and may or may not include an N-terminal signal peptide. However, it is noted that “full-length RET ECD” also encompasses a RET-ECD that is extended by 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids on the C-terminus to include amino acids residues of the transmembrane domain provided that the polypeptide is soluble. In other words, a RET ECD lacks a sufficient length of a transmembrane domain such that it is not anchored into a cell membrane. The phrase “full-length RET ECD” also encompasses a RET-ECD that is extended by 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 amino acids on the N-terminus to include amino acids residues of the signal peptide. In certain embodiments, RET fragment refers to a contiguous amino acid sequence

that is at least 70%, 75%, 80%, 85%, 90%, 95%, 96%, 97%, 98%, 99% or more identical to a contiguous amino acid sequence of RET described herein and lacks at least 30, 33, 35, 40, 45, 50, or 55 amino acids or more at the C-terminus of RET sequences described herein.

[00135] As used herein, the term “RET ECD fragment” refers to a RET ECD having one or more residues deleted from the N and/or C terminus of a full-length ECD and that retains the ability to bind to a GFRAL protein. In some instances, a RET ECD fragment may or may not include an N-terminal signal peptide. In some instances, a RET ECD fragment is a human RET ECD fragment that lacks 1, 5, 10, 15, 16, 17, 18, or 19 residues present at the N-terminus of the sequence:

LYFSRDAYWEKLYVDQAAGTPLLYVHALRDAPEEVPSFRLGQHLYGT
YRTRLHENNWICIQEDTGLLYLNRSLDHSSWEKLSVRNRGFPLLTVY
LKVFLSPTSLREGECQWPGCARVYFSFFNTSFPACSSLKPRELCFPE
TRPSFRIRENRPPGTFHQFRLLPVQFLCPNISVAYRLLEGEGLPFRCA
PDSLEVSTRWALDREQREKYELVAVCTVHAGAREEVVMVPFPVTVY
DEDDSAPTFPAGVDTASAVVEFKRKEDTVVATLRVFDADVVPASGEL
VRRYTSTLLPGDTWAQQTFRVEHWPNETSVQANGSFVRATVHDYRL
VLNRNLSISENRTMQLAVLVNDSDFQGPGAGVLLLHFNVSVLPVSLH
LPSTYSLSVSRRARRFAQIGKVCVENCQAFSGINVQYKLHSSGANCS
TLGVVTSAEDTSGILFVNDTKALRRPKCAELHYMVVATDQQTSRQAQ
AQLLVTVEGSYVAEEAGCPLSCAVSKRRLECEECGGLGSPTGRCEW
RQGDGKGITRNFSTCSPSTKTCPDGHCDVVETQDINICPQDCLRGSI
VGGHEPGEPRGIKAGYGTCNCFPEEEKCFCEPEDIQDPLCDELCR
(SEQ ID NO: 1816)

[00136] The above exemplary RET ECD fragment was used in various methods described in the Examples, including to produce a model of a complex comprising a RET protein, a GFRAL protein and a GDF15 protein.

[00137] In alternative embodiments of a RET ECD, the RET-ECD comprises a C64R, N75Q, N166Q, or C183S mutation in a RET ECD sequence of human full-length RET ECD SEQ ID NO 1814.

[00138] The phrase "modulates the activity and/or signaling, " when applied to a binding protein, such an antibody that binds to GFRAL of the present disclosure,

means that the binding protein (*e.g.,* antibody) mimics or modulates an *in vitro* or an *in vivo* biological effect induced by the binding of: (i) a GFRAL protein; (ii) a GDF15 protein and a GFRAL protein; or (iii) a GDF15 protein, a GFRAL protein, and a RET protein. In assessing the binding and specificity of anti-GFRAL antibody, for example, an antibody or fragment thereof, that binds to a GFRAL protein (*e.g.,* a human GFRAL protein), is deemed to induce a biological response when the response is equal to or less than 95%, and preferably equal to or less than 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 80%, 85%, 90% or 95%, of the activity of a wild type GFRAL standard (*e.g.,* the mature form of a human GFRAL protein). An antibody or fragment thereof, that binds to GFRAL (*e.g.,* human GFRAL), is also deemed to induce a biological response when it has one or more of the following properties: exhibiting an efficacy level of equal to or less than 95% of a GFRAL standard, with an IC50 of equal to or less than 100 nM, *e.g.,* 90 nM, 80 nM, 70 nM, 60 nM, 50 nM, 40 nM, 30 nM, 20 nM, 10 nM, 1 nM, 0.1 nM 0.01 nM in (1) a ELK1-luciferase reporter assay (see, *e.g.*, Example 3); or (2) ERK-phosphorylation assay in U2OS cells (see, *e.g.*, Example 4).

[00139] The term "binding protein" refers to a protein comprising a portion (*e.g.,* one or more binding regions such as CDRs) that binds to a GFRAL protein, including a human GFRAL protein and, optionally, a scaffold or framework portion (*e.g.,* one or more scaffold or framework regions) that allows the binding portion to adopt a conformation that promotes binding of the binding protein to a GFRAL polypeptide, fragment or epitope. Examples of such binding proteins include antibodies, such as a human antibody, a humanized antibody; a chimeric antibody; a recombinant antibody; a single chain antibody; a diabody; a triabody; a tetrabody; a Fab fragment; a F(ab') 2 fragment; an IgD antibody; an IgE antibody; an IgM antibody; an IgG1 antibody; an IgG2 antibody; an IgG3 antibody; or an IgG4 antibody, and fragments thereof. The binding protein can comprise, for example, an alternative protein scaffold or artificial scaffold with grafted CDRs or CDR derivatives. Such scaffolds include, but are not limited to, antibody-derived scaffolds comprising mutations introduced to, for example, stabilize the three-dimensional structure of the binding protein as well as wholly synthetic scaffolds comprising, for example, a biocompatible polymer. See, *e.g.,* Korndorfer et al., 2003, Proteins: Structure, Function, and Bioinformatics, 53(1):121-129 (2003); Roque *et al.*, Biotechnol. Prog.

20:639-654 (2004). In addition, peptide antibody mimetics ("PAMs") can be used, as well as scaffolds based on antibody mimetics utilizing fibronectin components as a scaffold. In the context of the present disclosure, a binding protein is said to specifically bind or selectively bind to GFRAL, for example, when the dissociation constant (K_D) is $\leq 10^{-8}$ M. The binding protein (*e.g.,*antibody) may specifically bind GFRAL with high affinity when the K_D is $\leq 10^{-9}$ M or K_D is $\leq 10^{-10}$ M. In some embodiments, the binding proteins (*e.g.,* antibodies) may bind to GFRAL, including with a K_D of between about 10^{-7} M and about 10^{-12} M and in other embodiments, the binding proteins (*e.g.,* antibodies) may bind with a K_D of 1-2 x 10^{-9} M.

[00140] The term “antibody” and “immunoglobulin” or “Ig” are used interchangeably herein, and is used in the broadest sense and specifically covers, for example, individual anti-GFRAL monoclonal antibodies (including agonist, antagonist, neutralizing antibodies, full length or intact monoclonal antibodies), anti-GFRAL antibody compositions with polyepitopic or monoepitopic specificity, polyclonal or monovalent antibodies, multivalent antibodies, multispecific antibodies (*e.g.,* bispecific antibodies so long as they exhibit the desired biological activity), formed from at least two intact antibodies, single chain anti-GFRAL antibodies, and fragments of anti-GFRAL antibodies, as described below. An antibody can be human, humanized, chimeric and/or affinity matured as well as an antibody from other species, for example mouse, rabbit etc. The term “antibody” is intended to include a polypeptide product of B cells within the immunoglobulin class of polypeptides that is able to bind to a specific molecular antigen and is composed of two identical pairs of polypeptide chains, wherein each pair has one heavy chain (about 50-70 kDa) and one light chain (about 25 kDa) and each amino-terminal portion of each chain includes a *vari*able region of about 100 to about 130 or more amino acids and each carboxy-terminal portion of each chain includes a constant region (See, Borrebaeck (ed.) (1995) Antibody Engineering, Second Ed., Oxford University Press.; Kuby (1997) Immunology, Third Ed., W.H. Freeman and Company, New York). In specific embodiments, the specific molecular antigen can be bound by an antibody provided herein includes a GFRAL polypeptide, GFRAL fragment or GFRAL epitope. Antibodies also include, but are not limited to, synthetic antibodies, monoclonal antibodies, recombinantly produced antibodies, multispecific antibodies (including bi-specific antibodies), human antibodies, humanized

antibodies, camelized antibodies, chimeric antibodies, intrabodies, anti-idiotypic (anti-Id) antibodies, and functional fragments (*e.g.,* antigens-binding fragments such as GFRAL binding fragments) of any of the above, which refers a portion of an antibody heavy or light chain polypeptide that retains some or all of the binding activity of the antibody from which the fragment was derived. Non-limiting examples of functional fragments (*e.g.,* antigens-binding fragments such as GFRAL binding fragments) include single-chain Fvs (scFv) (*e.g.,* including monospecific, bispecific, etc.), Fab fragments, F(ab') fragments, F(ab)2 fragments, F(ab')2 fragments, disulfide-linked Fvs (sdFv), Fd fragments, Fv fragments, diabody, triabody, tetrabody and minibody. In particular, antibodies provided herein include immunoglobulin molecules and immunologically active portions of immunoglobulin molecules, for example, antigen binding domains or molecules that contain an antigen-binding site that binds to a GFRAL antigen (*e.g.,* one or more complementarity determining regions (CDRs) of an anti-GFRAL antibody). Such antibody fragments can be found described in, for example, Harlow and Lane, Antibodies: A Laboratory Manual, Cold Spring Harbor Laboratory, New York (1989); Myers (ed.), Molec. Biology and Biotechnology: A Comprehensive Desk Reference, New York: VCH Publisher, Inc.; Huston et al., Cell Biophysics, 22:189-224 (1993); Plückthun and Skerra, Met*h. Enz*ymol., 178:497-515 (1989) and in Day, E.D., Advanced Immunoche*mistr*y, Second Ed., Wiley-Liss, Inc., New York, NY (1990). The antibodies provided herein can be of any type (*e.g.,* IgG, IgE, IgM, IgD, IgA and IgY), any cl*ass* (*e.g.,* IgG1, IgG2, IgG3, IgG4, IgA1 and IgA2), or any subclass (*e.g.,* IgG2a and IgG2b) of immunoglobulin molecule. Anti-GFRAL antibodies may be agonistic antibodies or antagonistic antibodies. Antibodies provided herein include antagonistic antibodies to GFRAL, for example, antibodies that inhibit GFRAL signaling. Exemplary anti-GFRAL antibodies include antibodies with CDRs as shown in Tables 1-24.

[00141] The terms "about" or "approximately" mean within 20%, within 15%, within 10%, within 9%, within 8%, within 7%, within 6%, within 5%, within 4%, within 3%, within 2%, within or 1% or less of a given value or range.

[00142] An "antigen" is a predetermined antigen to which an antibody can selectively bind. A target antigen may be a polypeptide, carbohydrate, nucleic acid, lipid, hapten or other naturally occurring or synthetic compound. In some embodiments, the target antigen is a polypeptide.

[00143] The term "antigen binding fragment," "antigen binding domain," "antigen binding region," and similar terms refer to that portion of an antibody which comprises the amino acid residues that interact with an antigen and confer on the binding agent its specificity and affinity for the antigen (*e.g.,* the complementarity determining regions (CDRs)).

[00144] The terms "binds" or "binding" refer to an interaction (*e.g.*, covalent or non-covalent) between molecules including, for example, to form a complex. A complex can also include the binding of two or more molecules held together by covalent or non-covalent bonds, interactions or forces. Interactions can be, for example, non-covalent interactions including hydrogen bonds, ionic bonds, hydrophobic interactions, and/or van der Waals interactions. The strength of the total non-covalent interactions between a single antigen-binding site on an antibody and a single epitope of a target molecule, such as GFRAL, is the affinity of the antibody or functional fragment for that epitope. The ratio of association (k1) to dissociation (k-1) of an antibody to a monovalent antigen (k1/ k-1) is the association constant K, which is a measure of affinity. The value of K varies for different complexes of antibody and antigen and depends on both k1 and k-1. The association constant K for an antibody provided herein can be determined using any method provided herein or any other method well known to those skilled in the art. The affinity at one binding site does not always reflect the true strength of the interaction between an antibody and an antigen. When complex antigens containing multiple, repeating antigenic determinants, such as a polyvalent GFRAL, come in contact with antibodies containing multiple binding sites, the interaction of antibody with antigen at one site will increase the probability of a reaction at a second site. The strength of such multiple interactions between a multivalent antibody and antigen is called the avidity. The avidity of an antibody can be a better measure of its binding capacity than is the affinity of its individual binding sites. For example, high avidity can compensate for low affinity as is sometimes found for pentameric IgM antibodies, which can have a lower affinity than IgG, but the high avidity of IgM, resulting from its multivalence, enables it to bind antigen effectively.

[00145] The terms "antibodies that specifically bind to GFRAL," "antibodies that specifically bind to a GFRAL epitope," and analogous terms are also used interchangeably herein and refer to antibodies that specifically bind to a GFRAL

polypeptide, such as a GFRAL antigen, or fragment, or epitope (*e.g.,* human GFRAL such as a human GFRAL polypeptide, antigen or epitope). An antibody that specifically binds to GFRAL, (*e.g.,* human GFRAL) may bind to the extracellular domain or peptide derived from the extracellular domain of GFRAL. An antibody that specifically binds to a GFRAL antigen (*e.g.,* human GFRAL) may be cross-reactive with related antigens (*e.g.,* cyno GFRAL). In certain embodiments, an antibody that specifically binds to a GFRAL antigen does not cross-react with other antigens. An antibody that specifically binds to a GFRAL antigen can be identified, for example, by immunoassays, Biacore, or other techniques known to those of skill in the art. An antibody binds specifically to a GFRAL antigen when it binds to a GFRAL antigen with higher affinity than to any cross reactive antigen as determined using experimental techniques, such as radioimmunoassays (RIA) and enzyme linked immunosorbent assays (ELISAs). Typically a specific or selective reaction will be at least twice background signal or noise and may be more than 10 times background. See, *e.g.,* Paul, ed., 1989, Fundamental Immunology Second Edition, Raven Press, New York at pages 332 336 for a discussion regarding antibody specificity. An antibody "which binds" an antigen of interest (*e.g.,* a target antigen such as GFRAL) is one that binds the antigen with sufficient affinity such that the antibody is useful as a therapeutic agent in targeting a cell or tissue expressing the antigen, and does not significantly cross-react with other proteins. In such embodiments, the extent of binding of the antibody to a "non-target" protein will be less than about 10% of the binding of the antibody to its particular target protein, for example, as determined by fluorescence activated cell sorting (FACS) analysis or radioimmunoprecipitation (RIA). With regard to the binding of an antibody to a target molecule, the term "specific binding" or "specifically binds to" or is "specific for" a particular polypeptide or an epitope on a particular polypeptide target means binding that is measurably different from a non-specific interaction. Specific binding can be measured, for example, by determining binding of a molecule compared to binding of a control molecule, which generally is a molecule of similar structure that does not have binding activity. For example, specific binding can be determined by competition with a control molecule that is similar to the target, for example, an excess of non-labeled target. In this case, specific binding is indicated if the binding of the labeled target to a probe is competitively inhibited by excess unlabeled target. The term "specific binding" or "specifically binds to" or is "specific for" a particular polypeptide

or an epitope on a particular polypeptide target as used herein can be exhibited, for example, by a molecule having a Kd for the target of at least about 10^{-4} M, alternatively at least about 10^{-5} M, alternatively at least about 10^{-6} M, alternatively at least about 10^{-7} M, alternatively at least about 10^{-8} M, alternatively at least about 10^{-9} M, alternatively at least about 10^{-10} M, alternatively at least about 10^{-11} M, alternatively at least about 10^{-12} M, or greater. In one embodiment, the term "specific binding" refers to binding where a molecule binds to a particular polypeptide or epitope on a particular polypeptide without substantially binding to any other polypeptide or polypeptide epitope. In certain embodiments, an antibody that binds to GFRAL has a dissociation constant (Kd) of less than or equal to 10 nM, 5 nM, 4 nM, 3 nM, 2 nM, 1 nM, 0.9 nM, 0.8 nM, 0.7 nM, 0.6 nM, 0.5 nM, 0.4 nM, 0.3 nM, 0.2 nM, or 0.1 nM. The lower the K_D, the higher the affinity of the anti-GFRAL antibody. In certain embodiments, anti- GFRAL antibody binds to an epitope of GFRAL that is conserved among GFRAL from different species (*e.g.,* between human and cyno GFRAL).

[00146] The term "compete" when used in the context of anti-GFRAL antibodies (*e.g.,* antagonistic antibodies and binding proteins that bind to GFRAL) that bind to or compete for the same epitope or binding site on a target means competition between as determined by an assay in which the antibody (or binding fragment) thereof under study prevents or inhibits the specific binding of a reference molecule (*e.g.,* a reference ligand, or reference antigen binding protein, such as a reference antibody) to a common antigen (*e.g.,* GFRAL or a fragment thereof). Numerous types of competitive binding assays can be used to determine if a test antibody competes with a reference antibody for binding to GFRAL (*e.g.,* human GFRAL). Examples of assays that can be employed include solid phase direct or indirect radioimmunoassay (RIA), solid phase direct or indirect enzyme immunoassay (EIA), sandwich competition assay (see, *e.g.,* Stahli et al., (1983) Methods in Enzymology 9:242-253); solid phase direct biotin-avidin EIA (see, *e.g.,* Kirkland *et al.*, (1986) J. Immunol. 137:3614-3619) solid phase direct labeled assay, solid phase direct labeled sandwich assay (see, *e.g.,* Harlow and Lane, (1988) Antibodies, A Laboratory Manual, Cold Spring Harbor Press); solid phase direct label RIA using 1-125 label (see, *e.g.,* Morel *et al.*, (1988) Molec. Immunol. 25:7-15); solid phase direct biotin-avidin EIA (see, *e.g.,* Cheung, et al., (1990) Virology 176:546-552); and direct

labeled RIA (Moldenhauer et al., (1990) Scand. J. Immunol. 32:77-82). Typically, such an assay involves the use of a purified antigen (*e.g.,* GFRAL such as human GFRAL) bound to a solid surface or cells bearing either of an unlabelled test antigen binding protein (*e.g.,* test anti-GFRAL antibody) or a labeled reference antigen binding protein (*e.g.,* reference anti-GFRAL antibody). Competitive inhibition may be measured by determining the amount of label bound to the solid surface or cells in the presence of the test antigen binding protein. Usually the test antigen binding protein is present in excess. Antibodies identified by competition assay (competing antibodies) include antibodies binding to the same epitope as the reference antibody and/or antibodies binding to an adjacent epitope sufficiently proximal to the epitope bound by the reference for antibodies steric hindrance to occur. Additional details regarding methods for determining competitive binding and/or binding to the same epitope are described herein. Usually, when a competing antibodies protein is present in excess, it will inhibit specific binding of a reference antibodies to a common antigen by at least 23%, for example 40%, 45%, 50%, 55%, 60%, 65%, 70% or 75%. In some instance, binding is inhibited by at least 80%, 85%, 90%, 95%, 96% or 97%, 98%, 99% or more.

[00147] The term “anti-GFRAL antibody” or “an antibody that binds to GFRAL” includes an antibody that is capable of binding GFRAL with sufficient affinity such that the antibody is useful as a diagnostic and/or therapeutic agent in targeting GFRAL. In certain embodiments, the extent of binding of an anti-GFRAL antibody to an unrelated, non-GFRAL protein is less than about 10% of the binding of the antibody to GFRAL as measured, for example, by fluorescence activated cell sorting (FACS) analysis or an immunoassay such as a radioimmunoassay (RIA). An antibody that “specifically binds to” or is “specific for” GFRAL is illustrated herein. In certain embodiments, an antibody that binds to GFRAL, as described herein, has a dissociation constant (Kd) of less than or equal to 10 nM, 9 nM, 8 nM, 7 nM, 6 nM, 5 nM, 4 nM, 0.9 nM, 0.8 nM, 0.7 nM, 0.6 nM, 0.5 nM, 0.4 nM, 0.3 nM, 0.2 nM, or 0.1 nM, and/or is greater than or equal to 0.1nM. In certain embodiments, anti-GFRAL antibody binds to an epitope of GFRAL that is conserved among GFRAL from different species (*e.g.,* between human and cyno GFRAL).

[00148] The terms “crystal”, and “crystallized” as used herein, refer to one or more proteins or fragments thereof that exist in the form of a crystal. Crystals are one form

of the solid state of matter, which is distinct from other forms such as the amorphous solid state or the liquid crystalline state. Crystals are composed of regular, repeating, three-dimensional arrays of atoms, ions, molecules (e.g., proteins such as antibodies), or molecular assemblies (*e.g.*, ligand/receptor or antigen/antibody complexes). These three-dimensional arrays are arranged according to specific mathematical relationships that are well-understood in the field. The fundamental unit, or building block, that is repeated in a crystal is called the asymmetric unit. Repetition of the asymmetric unit in an arrangement that conforms to a given, well-defined crystallographic symmetry provides the "unit cell" of the crystal. Repetition of the unit cell by regular translations in all three dimensions provides the crystal. See Giege, R. and Ducruix, A. Barrett, Crystallization of Nucleic Acids and Proteins, a Practical Approach, 2nd ea., pp. 20 1-16, Oxford University Press, New York, N.Y., (1999).

[00149] An "isolated" antibody is substantially free of cellular material or other contaminating proteins from the cell or tissue source and/or other contaminant components from which the antibody is derived, or substantially free of chemical precursors or other chemicals when chemically synthesized. The language "substantially free of cellular material" includes preparations of an antibody in which the antibody is separated from cellular components of the cells from which it is isolated or recombinantly produced. Thus, an antibody that is substantially free of cellular material includes preparations of antibody having less than about 30%, 25%, 20%, 15%,10%, 5%, or 1% (by dry weight) of heterologous protein (also referred to herein as a "contaminating protein"). In certain embodiments, when the antibody is recombinantly produced, it is substantially free of culture medium, *e.g.,* culture medium represents less than about 20%, 15%, 10%, 5%, or 1% of the volume of the protein preparation. In certain embodiments, when the antibody is produced by chemical synthesis, it is substantially free of chemical precursors or other chemicals, for example, it is separated from chemical precursors or other chemicals which are involved in the synthesis of the protein. Accordingly such preparations of the antibody have less than about 30%, 25%, 20%, 15%, 10%, 5%, or 1% (by dry weight) of chemical precursors or compounds other than the antibody of interest. Contaminant components can also include, but are not limited to, materials that would interfere with therapeutic uses for the antibody, and may include enzymes,

hormones, and other proteinaceous or nonproteinaceous solutes. In certain embodiments, the antibody will be purified (1) to greater than 95% by weight of antibody as determined by the Lowry method (Lowry *et al.* J. Bio. Chem. 193: 265-275, 1951), such as 96%, 97%, 98%, or 99%, by weight, (2) to a degree sufficient to obtain at least 15 residues of N-terminal or internal amino acid sequence by use of a spinning cup sequenator, or (3) to homogeneity by SDS-PAGE under reducing or nonreducing conditions using Coomassie blue or, preferably, silver stain. Isolated antibody includes the antibody *in situ* within recombinant cells since at least one component of the antibody's natural environment will not be present. Ordinarily, however, isolated antibody will be prepared by at least one purification step. In specific embodiments, antibodies provided herein are isolated.

[00150] A 4-chain antibody unit is a heterotetrameric glycoprotein composed of two identical light (L) chains and two identical heavy (H) chains. In the case of IgGs, the 4-chain unit is generally about 150,000 daltons. Each L chain is linked to a H chain by one covalent disulfide bond, while the two H chains are linked to each other by one or more disulfide bonds depending on the H chain isotype. Each H and L chain also has regularly spaced intrachain disulfide bridges. Each H chain has at the N-terminus, a variable domain (VH) followed by three constant domains (CH) for each of the α and γ chains and four CH domains for μ and ε isotypes. Each L chain has at the N-terminus, a variable domain (VL) followed by a constant domain (CL) at its other end. The VL is aligned with the VH and the CL is aligned with the first constant domain of the heavy chain (CH1). Particular amino acid residues are believed to form an interface between the light chain and heavy chain variable domains. The pairing of a VH and VL together forms a single antigen-binding site. For the structure and properties of the different classes of antibodies, see, *e.g.,* Basic and Clinical Immunology, 8th edition, Daniel P. Stites, Abba I. Terr and Tristram G. Parslow (eds.), Appleton & Lange, Norwalk, CT, 1994, page 71 and Chapter 6.

[00151] The term "variable region" or "variable domain" refers to a portion of the light or heavy chains of an antibody that is generally located at the amino-terminal of the light or heavy chain and has a length of about 120 to 130 amino acids in the heavy chain and about 100 to 110 amino acids in the light chain, and are used in the binding and specificity of each particular antibody for its particular antigen. The variable region of the heavy chain may be referred to as "VH." The variable region of

the light chain may be referred to as "VL." The term "variable" refers to the fact that certain segments of the variable regions differ extensively in sequence among antibodies. The V region mediates antigen binding and defines specificity of a particular antibody for its particular antigen. However, the variability is not evenly distributed across the 110-amino acid span of the variable regions. Instead, the V regions consist of less variable (*e.g.,* relatively invariant) stretches called framework regions (FRs) of about 15-30 amino acids separated by shorter regions of greater variability (*e.g.,* extreme variability) called "hypervariable regions" that are each about 9-12 amino acids long. The variable regions of heavy and light chains each comprise four FRs, largely adopting a β sheet configuration, connected by three hypervariable regions, which form loops connecting, and in some cases forming part of, the β sheet structure. The hypervariable regions in each chain are held together in close proximity by the FRs and, with the hypervariable regions from the other chain, contribute to the formation of the antigen-binding site of antibodies (see, *e.g.,* Kabat *et al.*, Sequences of Proteins of Immunological Interest, 5th Ed. Public Health Service, National Institutes of Health, Bethesda, MD, 1991)). The constant regions are not involved directly in binding an antibody to an antigen, but exhibit various effector functions, such as participation of the antibody in antibody dependent cellular cytotoxicity (ADCC) and complement dependent cytotoxicity (CDC). The variable regions differ extensively in sequence between different antibodies. The variability in sequence is concentrated in the CDRs while the less variable portions in the variable region are referred to as framework regions (FR). The CDRs of the light and heavy chains are primarily responsible for the interaction of the antibody with antigen. In specific embodiments, the variable region is a human variable region.

[00152] The term "variable region residue numbering as in Kabat" or "amino acid position numbering as in Kabat", and variations thereof, refers to the numbering system used for heavy chain variable regions or light chain variable regions of the compilation of antibodies in Kabat *et al.*, Sequences of Proteins of Immunological Interest, 5th Ed. Public Health Service, National Institutes of Health, Bethesda, MD. (1991). Using this numbering system, the actual linear amino acid sequence may contain fewer or additional amino acids corresponding to a shortening of, or insertion into, a FR or CDR of the variable domain. For example, a heavy chain variable domain may include a single amino acid insert (residue 52a according to Kabat) after

residue 52 of H2 and inserted residues (*e.g.,* residues 82a, 82b, and 82c, etc, according to Kabat) after heavy chain FR residue 82. The Kabat numbering of residues may be determined for a given antibody by alignment at regions of homology of the sequence of the antibody with a "standard" Kabat numbered sequence. The Kabat numbering system is generally used when referring to a residue in the variable domain (approximately residues 1-107 of the light chain and residues 1-113 of the heavy chain) (*e.g.,* Kabat *et al.,* Sequences of Immunological Interest. 5th Ed. Public Health Service, National Institutes of Health, Bethesda, Md. (1991)). The "EU numbering system" or "EU index" is generally used when referring to a residue in an immunoglobulin heavy chain constant region (*e.g.,* the EU index reported in Kabat *et al.*, supra). The "EU index as in Kabat" refers to the residue numbering of the human IgG 1 EU antibody. Other numbering systems have been described, including, for example, by AbM, Chothia, Contact, IMGT and AHon. Various numbering systems are illustrated in Tables 1-24.

[00153] An "intact" antibody is one comprising an antigen-binding site as well as a light chain constant region CL and at least heavy chain constant regions, CH1, CH2 and CH3. The constant regions may include human constant regions or amino acid sequence variants thereof. Preferably, an intact antibody has one or more effector functions.

[00154] "Antibody fragments" comprise a portion of an intact antibody, preferably the antigen binding or variable region of the intact antibody. Examples of antibody fragments include, without limitation, Fab, Fab', F(ab')2, and Fv fragments; diabodies and di-diabodies (see, *e.g.,* Holliger, P. *et al.,* (1993) Proc. Natl. Acad. Sci. 90:6444-8; Lu, D. *et al.,* (2005) J. Biol. Chem. 280:19665-72; Hudson *et al.*, Nat. Med. 9:129-134 (2003); WO 93/11161; and U.S. Patent Nos. 5,837,242 and 6,492,123); single-chain antibody molecules (see, *e.g.,* U.S. Patent Nos. 4,946,778; 5,260,203; 5,482,858 and 5,476,786); dual variable domain antibodies (see, *e.g.,* U.S. Patent No. 7,612,181); single variable domain antibodies (SdAbs) (see, *e.g.,* Woolven *et al.*, Immunogenetics 50: 98-101, 1999; Streltsov *et al.*, Proc Natl Acad Sci USA. 101:12444-12449, 2004); and multispecific antibodies formed from antibody fragments.

[00155] A "functional fragment" or "binding fragment" or "antigen binding fragment" of a therapeutic antibody will exhibit at least one if not some or all of the biological

functions attributed to the intact antibody, the function comprising at least binding to the target antigen, (*e.g.,* a GFRAL binding fragment or fragment that binds to GFRAL).

[00156] The term "fusion protein" as used herein refers to a polypeptide that comprises an amino acid sequence of an antibody and an amino acid sequence of a heterologous polypeptide or protein (*e.g.,* a polypeptide or protein not normally a part of the antibody (*e.g.,* a non-anti-GFRAL antigen binding antibody)). The term "fusion" when used in relation to GFRAL or to an anti-GFRAL antibody refers to the joining of a peptide or polypeptide, or fragment, variant and/or derivative thereof, with a heterologous peptide or polypeptide. In certain embodiments, the fusion protein retains the biological activity of the GFRAL or anti-GFRAL antibody. In certain embodiments, the fusion protein comprises a GFRAL antibody VH region, VL region, VH CDR (one, two or three VH CDRs), and/or VL CDR (one, two or three VL CDRs), wherein the fusion protein binds to a GFRAL epitope, a GFRAL fragment and/or a GFRAL polypeptide.

[00157] The term "heavy chain" when used in reference to an antibody refers to a polypeptide chain of about 50-70 kDa, wherein the amino-terminal portion includes a variable region of about 120 to 130 or more amino acids and a carboxy-terminal portion that includes a constant region (*e.g.*, CH1, CH2, CH3, CH4). The constant region can be one of five distinct types, (*e.g.,* isotypes) referred to as alpha (α), delta (δ), epsilon (ε), gamma (γ) and mu (μ), based on the amino acid sequence of the heavy chain constant regions. The distinct heavy chains differ in size: α, δ and γ contain approximately 450 amino acids, while μ and ε contain approximately 550 amino acids. When combined with a light chain, these distinct types of heavy chains give rise to five well known classes (*e.g.,* isotypes) of antibodies, IgA, IgD, IgE, IgG and IgM, respectively, including four subclasses of IgG, namely IgG1, IgG2, IgG3 and IgG4. A heavy chain can be a human heavy chain.

[00158] The term "light chain" when used in reference to an antibody refers to a polypeptide chain of about 25 kDa, wherein the amino-terminal portion includes a variable region of about 100 to about 110 or more amino acids and a carboxy-terminal portion that includes a constant region. The approximate length of a light chain is 211 to 217 amino acids. There are two distinct types, referred to as kappa (κ) of lambda (λ) based on the amino acid sequence of the constant domains. Light

chain amino acid sequences are well known in the art. A light chain can be a human light chain.

[00159] The term "effective amount" as used herein refers to the amount of a therapy (*e.g.,* an anti-GFRAL antibody or pharmaceutical composition provided herein; *see*, *e.g.*, antibodies comprising CDR, VH, and/or VL sequences as shown in Tables 1-24) which is sufficient to reduce the severity and/or frequency of symptoms, eliminate the symptoms and/or underlying cause, prevent the occurrence of symptoms and/or their underlying cause, and/or improve or remediate the damage that results from or is associated with a GDF15-mediated disease, disorder, or condition, including, for example, involuntary body weight loss, a glucose metabolism disorder or a body weight disorder. This term also encompasses an amount necessary for the reduction or amelioration of the advancement or progression of a given GDF15-mediated disease, disorder or condition, reduction or amelioration of the recurrence, development or onset of a GDF15-mediated disease, disorder or condition, and/or to improve or enhance the prophylactic or therapeutic effect(s) of another therapy (*e.g.,* a therapy other than anti-GFRAL antibody provided herein). In some embodiments, the effective amount is administered in one or more doses, including intermittent doses, wherein one ore more doses are given in a treatment period followed by a resting period when an antibody is not administered (*e.g.*, one cycle of treatment period and rest period can be followed with additional cycles, with one or more treatment periods followed by one or more resting periods). In some embodiments, the effective amount of an antibody provided herein is from about 0.1 mg/kg (mg of antibody per kg weight of the subject) to about 100 mg/kg. In certain embodiments, an effective amount of an antibody provided therein is about 0.1 mg/kg, about 0.5 mg/kg, about 1 mg/kg, 3 mg/kg, 5 mg/kg, about 10 mg/kg, about 15 mg/kg, about 20 mg/kg, about 25 mg/kg, about 30 mg/kg, about 35 mg/kg, about 40 mg/kg, about 45 mg/kg, about 50 mg/kg, about 60 mg/kg, about 70 mg/kg, about 80 mg/kg, about 90 mg/kg, or about 100 mg/kg (or a range therein). In some embodiments, effective amount as used herein also refers to the amount of an antibody provided herein to achieve a specified result (*e.g.*, mimic or modulate an *in vitro* or an *in vivo* biological effect induced by the binding of: (i) GFRAL; (ii) GDF15 and GFRAL; or (iii) GDF15, GFRAL, and RET). For example, an effective amount includes an amount (*e.g.*, in one or more doses) of an anti-GFRAL antibody as

described herein effective to: (i) increase body weight; (ii) maintain body weight; (iii) reduce body weight loss; (iv) increase body mass (*e.g.*, lean mass or fat mass); (v) maintain body mass (*e.g.*, lean mass or fat mass); or (vi) reduce loss of body mass (*e.g.*, lean mass or fat mass).

[00160] The term "host cell" as used herein refers to a particular subject cell that may be transfected with a nucleic acid molecule and the progeny or potential progeny of such a cell. Progeny of such a cell may not be identical to the parent cell transfected with the nucleic acid molecule due to mutations or environmental influences that may occur in succeeding generations or integration of the nucleic acid molecule into the host cell genome.

[00161] The term "immunomodulatory agent" and variations thereof including, but not limited to, immunomodulatory agents, as used herein refer to an agent that modulates a host's immune system. In certain embodiments, an immunomodulatory agent used in the combination therapies provided herein does not include an anti-GFRAL antibody or antigen-binding fragment. Immunomodulatory agents include, but are not limited to, small molecules, peptides, polypeptides, proteins, fusion proteins, antibodies, inorganic molecules, mimetic agents, and organic molecules. The term "small molecule" and analogous terms include, but are not limited to, peptides, peptidomimetics, amino acids, amino acid analogues, polynucleotides, polynucleotide analogues, nucleotides, nucleotide analogues, organic or inorganic compounds (*i.e.*, including heterorganic and/or ganometallic compounds) having a molecular weight less than about 10,000 grams per mole, organic or inorganic compounds having a molecular weight less than about 5,000 grams per mole, organic or inorganic compounds having a molecular weight less than about 1,000 grams per mole, organic or inorganic compounds having a molecular weight less than about 500 grams per mole, and salts, esters, and other pharmaceutically acceptable forms of such compounds. In some embodiments, an immunomodulatory agent is an immunostimulatory agent. In some embodiments, an immunomodulatory agent is an immunosuppressant agent. In some embodiments, immunomodulatory agents are agents (*e.g.*, antibodies) that modulate (*e.g.*, inhibit or stimulate) proteins known as immune checkpoint molecules (*e.g.*, co-inhibitory or co-stimulatory), for example, C10orf54, CD86, CD80, PDL-1, PDL-2, CTLA-4, PD1, LAG3, BTNL2, B7-H3, B7-H4, a butyrophilin, CD48, CD244, TIM-3, CD200R, CD200, CD160, BTLA,

HVEM, LAIR1, TIM1, Galectin 9, TIM3, CD48, 2B4, CD155, CD112, CD113 and TIGIT (*e.g.*, co-inhibitory), and/or CD154, TNFRSF25, GITR, 4-1BB, OX40, CD27, TMIGD2, ICOS, CD28, CD40, TL1A, GITRL, 41BBL, OX40L, CD70, HHLA2, ICOSL, a cytokine, LIGHT, HVEM, CD30, CD30L, B7-H2, CD80, CD86, CD40L, TIM4, TIM1, SLAM, CD48, CD58, CD155, CD112, DR3, GITR, CD2, and CD226 (*e.g.*, co-stimulatory).

[00162] The term "monoclonal antibody" as used herein refers to an antibody obtained from a population of substantially homogeneous antibodies, *e.g.,* the individual antibodies comprising the population are identical except for possible naturally occurring mutations that may be present in minor amounts, and each monoclonal antibody will typically recognize a single epitope on the antigen. In specific embodiments, a "monoclonal antibody," as used herein, is an antibody produced by a single hybridoma or other cell, wherein the antibody binds to only a GFRAL epitope as determined, for example, by ELISA or other antigen-binding or competitive binding assay known in the art. The term "monoclonal" is not limited to any particular method for making the antibody. For example, the monoclonal antibodies useful in the present disclosure may be prepared by the hybridoma methodology first described by Kohler *et al.*, Nature, 256:495 (1975), or may be made using recombinant DNA methods in bacterial, eukaryotic animal or plant cells (see, *e.g.,* U.S. Patent No. 4,816,567). The "monoclonal antibodies" may also be isolated from phage antibody libraries using the techniques described in Clackson *et al.*, Nature, 352:624-628 (1991) and Marks *et al.*, J. Mol. Biol., 222:581-597 (1991), for example. Other methods for the preparation of clonal cell lines and of monoclonal antibodies expressed thereby are well known in the art (see, for example, Chapter 11 in: Short Protocols in Molecular Biology, (2002) 5th Ed., Ausubel *et al.*, eds., John Wiley and Sons, New York). Exemplary methods of producing monoclonal antibodies are provided in the Examples herein.

[00163] The term "native" when used in connection with biological materials such as nucleic acid molecules, polypeptides, host cells, and the like, refers to those which are found in nature and not manipulated, modified, and/or changed (*e.g.,* isolated, purified, selected) by a human being.

[00164] The antibodies provided herein can include "chimeric" antibodies in which a portion of the heavy and/or light chain is identical with or homologous to

corresponding sequences in antibodies derived from a particular species or belonging to a particular antibody class or subclass, while the remainder of the chain(s) is identical with or homologous to corresponding sequences in antibodies derived from another species or belonging to another antibody class or subclass, as well as fragments of such antibodies, so long as they exhibit the desired biological activity (see, *e.g.*, U.S. Patent No. 4,816,567; and Morrison *et al.*, Proc. Natl. Acad. Sci. USA, 81:6851-6855 (1984)).

[00165] "Humanized" forms of nonhuman (*e.g.,* murine) antibodies are chimeric antibodies that include human immunoglobulins (*e.g.,* recipient antibody) in which the native CDR residues are replaced by residues from the corresponding CDR of a nonhuman species (*e.g.,* donor antibody) such as mouse, rat, rabbit or nonhuman primate having the desired specificity, affinity, and capacity. In some instances, one or more FR region residues of the human immunoglobulin are replaced by corresponding nonhuman residues. Furthermore, humanized antibodies can comprise residues that are not found in the recipient antibody or in the donor antibody. These modifications are made to further refine antibody performance. A humanized antibody heavy or light chain can comprise substantially all of at least one or more variable regions, in which all or substantially all of the CDRs correspond to those of a nonhuman immunoglobulin and all or substantially all of the FRs are those of a human immunoglobulin sequence. In certain embodiments, the humanized antibody will comprise at least a portion of an immunoglobulin constant region (Fc), typically that of a human immunoglobulin. For further details, see, Jones *et al.*, Nature, 321:522-525 (1986); Riechmann *et al.*, Nature, 332:323-329 (1988); and Presta, Curr. Op. Struct. Biol., 2:593-596 (1992); Carter *et al.*, Proc. Natl. Acd. Sci. USA 89:4285-4289 (1992); and U.S. Patent Nos: 6,800,738 (issued Oct. 5, 2004), 6,719,971 (issued Sept. 27, 2005), 6,639,055 (issued Oct. 28, 2003), 6,407,213 (issued June 18, 2002), and 6,054,297 (issued April 25, 2000).

[00166] A "human antibody" is one which possesses an amino acid sequence which corresponds to that of an antibody produced by a human and/or has been made using any of the techniques for making human antibodies as disclosed herein. This definition of a human antibody specifically excludes a humanized antibody comprising non-human antigen-binding residues. Human antibodies can be produced using various techniques known in the art, including phage-display libraries

(Hoogenboom and Winter, J. Mol. Biol., 227:381 (1991); Marks *et al.*, J. Mol. Biol., 222:581 (1991) and yeast display libraries (Chao *et al.*, Nature Protocols 1: 755-768 (2006)). Also available for the preparation of human monoclonal antibodies are methods described in Cole *et al.*, Monoclonal Antibodies and Cancer Therapy, Alan R. Liss, p. 77 (1985); Boerner *et al.*, J. Immunol., 147(1):86-95 (1991). See also van Dijk and van de Winkel, Curr. Opin. Pharmacol., 5: 368-74 (2001). Human antibodies can be prepared by administering the antigen to a transgenic animal that has been modified to produce such antibodies in response to antigenic challenge, but whose endogenous loci have been disabled, *e.g.,* mice (see, *e.g.,* Jakobovits, A., Curr. Opin. Biotechnol. 1995, 6(5):561-6; Brüggemann and Taussing, Curr. Opin. Biotechnol. 1997, 8(4):455-8; and U.S. Pat. Nos. 6,075,181 and 6,150,584 regarding XENOMOUSE™ technology). See also, for example, Li *et al.*, Proc. Natl. Acad. Sci. USA, 103:3557-3562 (2006) regarding human antibodies generated via a human B-cell hybridoma technology.

[00167] A "CDR" refers to one of three hypervariable regions (H1, H2 or H3) within the non-framework region of the immunoglobulin (Ig or antibody) VH β-sheet framework, or one of three hypervariable regions (L1, L2 or L3) within the non-framework region of the antibody VL β-sheet framework. Accordingly, CDRs are variable region sequences interspersed within the framework region sequences. CDR regions are well known to those skilled in the art and have been defined by, for example, Kabat as the regions of most hypervariability within the antibody variable (V) domains (Kabat *et al.*, J. Biol. Chem. 252:6609-6616 (1977); Kabat, Adv. Prot. Chem. 32:1-75 (1978)). CDR region sequences also have been defined structurally by Chothia as those residues that are not part of the conserved β-sheet framework, and thus are able to adapt different conformations (Chothia and Lesk, J. Mol. Biol. 196:901-917 (1987)). Both terminologies are well recognized in the art. CDR region sequences have also been defined by AbM, Contact and IMGT. CDR region sequences are illustrated in Tables 1-24. The positions of CDRs within a canonical antibody variable region have been determined by comparison of numerous structures (Al-Lazikani *et al.*, J. Mol. Biol. 273:927-948 (1997); Morea *et al.*, Methods 20:267-279 (2000)). Because the number of residues within a hypervariable region varies in different antibodies, additional residues relative to the canonical positions are conventionally numbered with a, b, c and so forth next to the residue number in

the canonical variable region numbering scheme (Al-Lazikani *et al.*, supra (1997)). Such nomenclature is similarly well known to those skilled in the art.

[00168] The term "hypervariable region", "HVR", or "HV", when used herein refers to the regions of an antibody variable region that are hypervariable in sequence and/or form structurally defined loops. Generally, antibodies comprise six hypervariable regions; three in the VH (H1, H2, H3), and three in the VL (L1, L2, L3). A number of hypervariable region delineations are in use and are encompassed herein. The Kabat Complementarity Determining Regions (CDRs) are based on sequence variability and are the most commonly used (see, *e.g.,* Kabat *et al.*, Sequences of Proteins of Immunological Interest, 5th Ed. Public Health Service, National Institutes of Health, Bethesda, MD. (1991)). Chothia refers instead to the location of the structural loops (see, *e.g.,*Chothia and Lesk, J. Mol. Biol. 196:901-917 (1987)). The end of the Chothia CDR-H1 loop when numbered using the Kabat numbering convention varies between H32 and H34 depending on the length of the loop (this is because the Kabat numbering scheme places the insertions at H35A and H35B; if neither 35A nor 35B is present, the loop ends at 32; if only 35A is present, the loop ends at 33; if both 35A and 35B are present, the loop ends at 34). The AbM hypervariable regions represent a compromise between the Kabat CDRs and Chothia structural loops, and are used by Oxford Molecular's AbM antibody modeling software (see, *e.g.,* Martin, in Antibody Engineering, Vol. 2, Chapter 3, Springer Verlag). The "contact" hypervariable regions are based on an analysis of the available complex crystal structures. The residues from each of these hypervariable regions or CDRs are noted below.

[00169] Recently, a universal numbering system has been developed and widely adopted, ImMunoGeneTics (IMGT) Information System® (Lafranc *et al.*, Dev. Comp. Immunol. 27(1):55-77 (2003)). IMGT is an integrated information system specializing in immunoglobulins (IG), T cell receptors (TR) and major histocompatibility complex (MHC) of human and other vertebrates. Herein, the CDRs are referred to in terms of both the amino acid sequence and the location within the light or heavy chain. As the "location" of the CDRs within the structure of the immunoglobulin variable domain is conserved between species and present in structures called loops, by using numbering systems that align variable domain sequences according to structural features, CDR and framework residues and are

readily identified. This information can be used in grafting and replacement of CDR residues from immunoglobulins of one species into an acceptor framework from, typically, a human antibody. An additional numbering system (AHon) has been developed by Honegger and Plückthun, *J. Mol. Biol.* 309: 657-670 (2001). Correspondence between the numbering system, including, for example, the Kabat numbering and the IMGT unique numbering system, is well known to one skilled in the art (see, *e.g.,* Kabat, *supra*; Chothia and Lesk, *supra*; Martin, *supra*; Lefranc *et al.*, *supra*) and is also illustrated in Tables 1-24. An Exemplary system, shown herein, combines Kabat and Chothia.

	Exemplary	IMGT	Kabat	AbM	Chothia	Contact
V_H CDR1	26-35	27-38	31-35	26-35	26-32	30-35
V_H CDR2	50-65	56-65	50-65	50-58	53-55	47-58
V_H CDR3	95-102	105-117	95-102	95-102	96-101	93-101
V_L CDR1	24-34	27-38	24-34	24-34	26-32	30-36
V_L CDR2	50-56	56-65	50-56	50-56	50-52	46-55
V_L CDR3	89-97	105-117	89-97	89-97	91-96	89-96

[00170] Hypervariable regions may comprise “extended hypervariable regions” as follows: 24-36 or 24-34 (L1), 46-56 or 50-56 (L2) and 89-97 or 89-96 (L3) in the VL and 26-35 or 26-35A (H1), 50-65 or 49-65 (H2) and 93-102, 94-102, or 95-102 (H3) in the VH. As used herein, the terms “HVR” and “CDR” are used interchangeably.

[00171] The term “constant region” or “constant domain” refers to a carboxy terminal portion of the light and heavy chain which is not directly involved in binding of the antibody to antigen but exhibits various effector function, such as interaction with the Fc receptor. The terms refer to the portion of an immunoglobulin molecule having a more conserved amino acid sequence relative to the other portion of the immunoglobulin, the variable region, which contains the antigen binding site. The constant region may contain the CH1, CH2 and CH3 regions of the heavy chain and the CL region of the light chain.

[00172] The term "framework" or "FR" residues are those variable region residues flanking the CDRs. FR residues are present, for example, in chimeric, humanized, human, domain antibodies, diabodies, linear antibodies, and bispecific antibodies. FR residues are those variable domain residues other than the hypervariable region residues or CDR residues.

[00173] An "affinity matured" antibody is one with one or more alterations (*e.g.,* amino acid sequence variations, including changes, additions and/or deletions) in one or more HVRs thereof which result in an improvement in the affinity of the antibody for antigen, compared to a parent antibody which does not possess those alteration(s). Preferred affinity matured antibodies will have nanomolar or even picomolar affinities for the target antigen. Affinity matured antibodies are produced by procedures known in the art. For review, see Hudson and Souriau, Nature Medicine 9 :129-134 (2003); Hoogenboom, Nature Biotechnol. 23 : 1105-1116 (2005); Quiroz and Sinclair, Revista Ingeneria Biomedia 4 : 39-51 (2010).

[00174] A "blocking" antibody or an "antagonist" antibody is one which inhibits or reduces biological activity of the antigen it binds (*e.g.*, GFRAL, as described herein). For example, blocking antibodies or antagonist antibodies may substantially or completely inhibit the biological activity of the antigen (*e.g.*, GFRAL, as described herein).

[00175] An "agonist antibody" is an antibody that triggers a response, *e.g.,* one that mimics at least one of the functional activities of a polypeptide of interest. An agonist antibody includes an antibody that is a ligand mimetic, for example, wherein a ligand binds to a cell surface receptor and the binding induces cell signaling or activities via an intercellular cell signaling pathway and wherein the antibody induces a similar cell signaling or activation.

[00176] An "antagonist" of GFRAL refers to a molecule (*e.g.*, antibody) that is capable of detectably inhibiting or otherwise decreasing one or more of the biological activities of GFRAL, such as in a cell expressing GFRAL. In some embodiments, an antagonist of GFRAL (*e.g.,* an agonistic antibody as described herein) may, for example, act by detectably inhibiting or otherwise decreasing the activation and/or cell signaling pathways of a cell expressing a GFRAL, thereby detectably decreasing a GFRAL-mediated biological activity of the cell relative to the GFRAL-mediated

biological activity in the absence of antagonist. In some embodiments the antibodies provided herein are antagonistic anti-GFRAL antibodies, including antibodies that inhibit signaling of a complex comprising GFRAL, GDF15 and/or RET. The inhibition or decrease caused by a GFRAL antagonist need not be complete as long as it is detectable using an assay. For example, a cell-based assay described in the Examples below can be used to analyze a biological activity of GFRAL.

[00177] "Binding affinity" generally refers to the strength of the sum total of noncovalent interactions between a single binding site of a molecule (*e.g.,* a binding protein such as an antibody) and its binding partner (*e.g.,* an antigen). Unless indicated otherwise, as used herein, "binding affinity" refers to intrinsic binding affinity which reflects a 1:1 interaction between members of a binding pair (*e.g.,* antibody and antigen). The affinity of a binding molecule X for its binding partner Y can generally be represented by the dissociation constant (K_D). Affinity can be measured by common methods known in the art, including those described herein. Low-affinity antibodies generally bind antigen slowly and tend to dissociate readily, whereas high-affinity antibodies generally bind antigen faster and tend to remain bound longer. A variety of methods of measuring binding affinity are known in the art, any of which can be used for purposes of the present disclosure. Specific illustrative embodiments include the following. In one embodiment, the "K_D" or "K_D value" may be measured by assays known in the art, for example by a binding assay. The K_D may be measured in a radiolabeled antigen binding assay (RIA), for example, performed with the Fab version of an antibody of interest and its antigen (Chen, *et al.*, (1999) J. Mol Biol 293:865-881). The K_D or K_D value may also be measured by using surface plasmon resonance assays by Biacore, using, for example, a BIAcoreTM-2000 or a BIAcoreTM-3000 BIAcore, Inc., Piscataway, NJ), or by biolayer interferometry using, for example, the OctetQK384 sytem (ForteBio, Menlo Park, CA). An "on-rate" or "rate of association" or "association rate" or "kon" may can also be determined with the same surface plasmon resonance or biolayer interferometry techniques described above using, for example, a BIAcoreTM-2000 or a BIAcoreTM-3000 (BIAcore, Inc., Piscataway, NJ), or the OctetQK384 sytem (ForteBio, Menlo Park, CA).

[00178] The phrase "substantially similar" or "substantially the same" denotes a sufficiently high degree of similarity between two numeric values (*e.g.,* one

associated with an antibody of the present disclosure and the other associated with a reference antibody) such that one of skill in the art would consider the difference between the two values to be of little or no biological and/or statistical significance within the context of the biological characteristic measured by the values (*e.g.,* K_D values). For example, the difference between the two values may be less than about 50%, less than about 40%, less than about 30%, less than about 20%, less than about 10%, less than about 5%,as a function of the value for the reference antibody.

[00179] The phrase "substantially reduced," or "substantially different", as used herein, denotes a sufficiently high degree of difference between two numeric values (*e.g.,* one associated with an antibody of the present disclosure and the other associated with a reference antibody) such that one of skill in the art would consider the difference between the two values to be of statistical significance within the context of the biological characteristic measured by the values. For example, the difference between said two values may be preferably greater than about 10%, greater than about 20%, greater than about 30%, greater than about 40%, greater than about 50% as a function of the value for the reference antibody.

[00180] Antibody "effector functions" refer to those biological activities attributable to the Fc region (*e.g.,* a native sequence Fc region or amino acid sequence variant Fc region) of an antibody, and vary with the antibody isotype. Examples of antibody effector functions include: C1q binding and complement dependent cytotoxicity; Fc receptor binding; antibody-dependent cell-mediated cytotoxicity (ADCC); phagocytosis; down regulation of cell surface receptors (*e.g.,* B cell receptor); and B cell activation.

[00181] The term "Fc region" herein is used to define a C-terminal region of an immunoglobulin heavy chain, including, for example, native sequence Fc regions, recombinant Fc regions, and variant Fc regions. Although the boundaries of the Fc region of an immunoglobulin heavy chain might vary, the human IgG heavy chain Fc region is often defined to stretch from an amino acid residue at position Cys226, or from Pro230, to the carboxyl-terminus thereof. The C-terminal lysine (residue 447 according to the EU numbering system) of the Fc region may be removed, for example, during production or purification of the antibody, or by recombinantly engineering the nucleic acid encoding a heavy chain of the antibody. Accordingly, a composition of intact antibodies may comprise antibody populations with all K447

residues removed, antibody populations with no K447 residues removed, and antibody populations having a mixture of antibodies with and without the K447 residue.

[00182] A "functional Fc region" possesses an "effector function" of a native sequence Fc region. Exemplary "effector functions" include C1q binding; complement dependent cytotoxicity (CDC); Fc receptor binding; antibody-dependent cell-mediated cytotoxicity (ADCC); phagocytosis; down regulation of cell surface receptors (*e.g.,* B cell receptor; BCR), etc. Such effector functions generally require the Fc region to be combined with a binding region or binding domain (*e.g.,* an antibody variable region or domain) and can be assessed, including using various assays as disclosed herein and/or as known in the art.

[00183] A "native sequence Fc region" comprises an amino acid sequence identical to the amino acid sequence of an Fc region found in nature, and not manipulated, modified, and/or changed (*e.g.,* isolated, purified, selected, including or combining with other sequences such as variable region sequences) by a human. Native sequence human Fc regions include a native sequence human IgG1 Fc region (non-A and A allotypes); native sequence human IgG2 Fc region; native sequence human IgG3 Fc region; and native sequence human IgG4 Fc region as well as naturally occurring variants thereof.

[00184] A "variant Fc region" comprises an amino acid sequence which differs from that of a native sequence Fc region by virtue of at least one amino acid modification, (*e.g.,* substituting, addition, or deletion) preferably one or more amino acid substitution(s). Preferably, the variant Fc region has at least one amino acid substitution compared to a native sequence Fc region or to the Fc region of a parent polypeptide, for example, from about one to about ten amino acid substitutions, and preferably from about one to about five amino acid substitutions in a native sequence Fc region or in the Fc region of the parent polypeptide. The variant Fc region herein will preferably possess at least about 80% homology with a native sequence Fc region and/or with an Fc region of a parent polypeptide, and more preferably at least about 90% homology therewith, for example, at least about 95% homology therewith. For example, a variant with two amino acid changes to alanine at two positions in the human IgG1 Fc sequence are shown bolded in the amino acid sequence provided below:

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALT
SGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKV
DKKVEPKSCDKTHTCPPCPAP**A**L**A**GGPSVFLFPPKPKDTLMISRTPE
VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVS
VLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTL
PPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVL
DSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLS
PGK (SEQ ID NO: 2001)

[00185] For example, a variant with two amino acid changes to alanine at two positions in a truncated human IgG1 Fc sequence, in which the C-terminal lysine residue is absent (IgG1ΔK Fc), are shown bolded in the amino acid sequence provided below:

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALT
SGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKV
DKKVEPKSCDKTHTCPPCPAP**A**L**A**GGPSVFLFPPKPKDTLMISRTPE
VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVS
VLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTL
PPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVL
DSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLS
PG (SEQ ID NO: 2002)

[00186] For example, a truncated variant of the human IgG1 Fc sequence, in which the C-terminal lysine residue is absent (IgG1ΔK Fc) is shown in the amino acid sequence provided below:

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALT
SGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKV
DKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPE
VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVS
VLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTL
PPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVL
DSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLS
PG (SEQ ID NO: 2003)

[00187] For example, a variant with an amino acid change to proline at a position in the human IgG4 Fc sequence is shown bolded in the amino acid sequence provided below:

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALT
SGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTKTYTCNVDHKPSNTKV
DKRVESKYGPPCP**P**CPAPEFLGGPSVFLFPPKPKDTLMISRTPEVTC
VVVDVSQEDPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLT
VLHQDWLNGKEYKCKVSNKGLPSSIEKTISKAKGQPREPQVYTLPPS
QEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDS
DGSFFLYSRLTVDKSRWQEGNVFSCSVMHEALHNHYTQKSLSLSLG
K (SEQ ID NO: 2004)

[00188] For example, a variant with an amino acid change to proline at a position in a human IgG4 Fc sequence, in which the C-terminal lysine is absent (IgG4 ΔK Fc), is shown bolded in the amino acid sequence provided below:

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALT
SGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTKTYTCNVDHKPSNTKV
DKRVESKYGPPCP**P**CPAPEFLGGPSVFLFPPKPKDTLMISRTPEVTC
VVVDVSQEDPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLT
VLHQDWLNGKEYKCKVSNKGLPSSIEKTISKAKGQPREPQVYTLPPS
QEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDS
DGSFFLYSRLTVDKSRWQEGNVFSCSVMHEALHNHYTQKSLSLSLG
(SEQ ID NO: 2005)

[00189] For example, a variant with an amino acid change to Glutamine at a position in the human IgG1 Fc sequence is shown bolded in the amino acid sequence provided below:

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALT
SGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKV
DKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPE
VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQY**Q**STYRVV
SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYT
LPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPV

LDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSL SPGK (SEQ ID NO: 2006)

[00190] Any of the VH domains of Tables 1-24 and of FIGS. 4A, 5A, 5C, 5E, 6A, 7A, 8A, 9A, and 10A may be combined with a variant Fc region described herein. Exemplary heavy chain constructs comprising a variant Fc region may include the following constructs designated as shown below; the variable region sequence is bolded with CDR sequences underlined:

[00191] 3P10 Fab Hc:

QIQLVQSGPELKKPGETVKISCKAS<u>GYTFTDYGVI</u>WVKQAPGKALK WMG<u>WINTYTGEPTYADDLKG</u>RFAFSLETSASSASLQINNLKNEDTA TYFCAR<u>RYGPEDIDY</u>WGQGTTLTVSSASTKGPSVFPLAPSSKSTSG GTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSS VVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDEVD (**SEQ ID NO:1824)**

[00192] 25M22 Fab Hc:

QVQLQQSGPDLVKPGASVKISCKAS<u>GYTFTSYWVN</u>WMKQRPGKG LEWIG<u>RIYPGDGDTNYNGKFKG</u>KATLTADKSSSTAYMQLSSLTSED SAVYFCAR<u>AYLLRLRRTGYYAMDY</u>WGQGTSVTVSSASTKGPSVFPL APSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVL QSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCD EVD **(SEQ ID NO:1826)**

[00193] 8D8 Fab Hc:

QVQLKESGPGLVAPSQSLSITCTVS<u>GFSLSRYSVH</u>WVRQPPGKGLE WLG<u>MIWGFGSTDYNSALKS</u>RLSITKDNSKSQFFLKMNSLQTDDTAM YYCAR<u>IHTTAGSY</u>WGQGTLVTVSAASTKGPSVFPLAPSSKSTSGGT AALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVV TVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDEVDG **(SEQ ID NO:1828)**

[00194] 5F12 Fab Hc:

QVQLKQSGTELVRPGASVKLSCKAS<u>GYTFTDYYIN</u>WVKQRPGQGL EWIA<u>RIYPGNGNTYHNEKFKG</u>KATLTAEKSSSTAYMQLSSLTSEDS

AVYFCAREGLYYDYDRYFDYWGQGTALTVSSASTKGPSVFPLAPSS
KSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSG
LYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDEVDG
(SEQ ID NO:1830)

[00195] A "light chain constant region" includes kappa and lambda constant regions. Any of the VL domains of Tables Tables 1-24 and of FIGS. 4B, 5B, 5D, 5F, 6B, 7B, 8B, 9B, and 10B may be combined with a kappa or lambda constant region described herein.

[00196] An exemplary kappa constant region is provided below:

RTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNAL
QSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQG
LSSPVTKSFNRGEC (SEQ ID NO: 2007)

[00197] An exemplary lambda constant region is provided below:

GQPKAAPSVTLFPPSSEELQANKATLVCLISDFYPGAVTVAWKADSS
PVKAGVETTTPSKQSNNKYAASSYLSLTPEQWKSHRSYSCQVTHEG
STVEKTVAPTECS (SEQ ID NO: 2008)

[00198] Exemplary light chain constructs comprising a constant region may include the following constructs designated as shown below; the variable region sequence is bolded with CDR sequences underlined:

[00199] **3P10 Fab Lc:**

**DIVLTQSPVSLAVSLGQRATISCRASESVDNYGISFMSWFQQKPGQ
PPKLLIYAASHQGSGVPARFSGSGSGTDFSLNIHPMEEDDSAMYFC
LQSKEVPWTFGGGTKLEIK**RTVAAPSVFIFPPSDEQLKSGTASVVCL
LNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTL
SKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC **(SEQ ID NO:1825)**

[00200] **25M22 Fab Lc:**

D**VVLTQTPLSLPVNIGDQASISCKSTKSLLNSDEFTYLDWYLQKPGQ
SPQLLIFLVSNRFSGVPDRFSGSGSGTDFTLKISRVEAEDLGVYYCF
QSNYLPYTFGGGTKLEIK**RTVAAPSVFIFPPSDEQLKSGTASVVCLLN

NFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSK ADYEKHKVYACEVTHQGLSSPVTKSFNRGEC **(SEQ ID NO:1827)**

[00201] **8D8 Fab Lc:**

DIVMTQSQKFMSTSIGDRVSVTCKASQNVGTNVAWYQQKPGQSPK ALVYSTSYRYSGVPDRFTGSGSGTDFTLTISNVQSEDLAEYFCHQYN SYPLTFGAGTKLELKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFY PREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADY EKHKVYACEVTHQGLSSPVTKSFNRGEC **(SEQ ID NO:1829)**

[00202] **5F12 Fab Lc:**

NIVLTQSPASLAVSLGQRATISCRASESVDTYGNSFMHWYQQKPGQ PPKLLIYLASNLESGVPARFSGSGSRTDFTLTIDPVEADDAATYYCH QNNEDPPAFGGGTKLEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLL NNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLS KADYEKHKVYACEVTHQGLSSPVTKSFNRGEC **(SEQ ID NO:1831)**

[00203] The term "variant" when used in relation to GFRAL or to an anti-GFRAL antibody may refer to a peptide or polypeptide comprising one or more (such as, for example, about 1 to about 25, about 1 to about 20, about 1 to about 15, about 1 to about 10, or about 1 to about 5) amino acid sequence substitutions, deletions, and/or additions as compared to a native or unmodified GFRAL sequence. For example, a GFRAL variant may result from one or more (such as, for example, about 1 to about 25, about 1 to about 20, about 1 to about 15, about 1 to about 10, or about 1 to about 5) changes to an amino acid sequence of a native GFRAL. Also by way of example, a variant of an anti-GFRAL antibody may result from one or more (such as, for example, about 1 to about 25, about 1 to about 20, about 1 to about 15, about 1 to about 10, or about 1 to about 5) changes to an amino acid sequence of a native or previously unmodified anti-GFRAL antibody. Variants may be naturally occurring, such as allelic or splice variants, or may be artificially constructed. Polypeptide variants may be prepared from the corresponding nucleic acid molecules encoding the variants. In some embodiments, the GFRAL variant or anti-GFRAL antibody variant at least retains GFRAL or anti-GFRAL antibody functional activity, respectively. In some embodiments, an anti-GFRAL antibody variant binds GFRAL and/or is antagonistic to GFRAL activity. In some embodiments, an anti-GFRAL

antibody variant binds GFRAL and/or is agonistic to GFRAL activity. In some embodiments, the variant is encoded by a single nucleotide polymorphism (SNP) variant of a nucleic acid molecule that encodes GFRAL or anti- GFRAL antibody VH or VL regions or subregions, such as one or more CDRs.

[00204] The term "vector" refers to a substance that is used to carry or include a nucleic acid sequences, including for example, in order to introduce a nucleic acid sequence into a host cell. Vectors applicable for use include, for example, expression vectors, plasmids, phage vectors, viral vectors, episomes and artificial chromosomes, which can include selection sequences or markers operable for stable integration into a host cell's chromosome. Additionally, the vectors can include one or more selectable marker genes and appropriate expression control sequences. Selectable marker genes that can be included, for example, provide resistance to antibiotics or toxins, complement auxotrophic deficiencies, or supply critical nutrients not in the culture media. Expression control sequences can include constitutive and inducible promoters, transcription enhancers, transcription terminators, and the like which are well known in the art. When two or more nucleic acid molecules are to be co-expressed (*e.g.* both an antibody heavy and light chain or an antibody VH and VL) both nucleic acid molecules can be inserted, for example, into a single expression vector or in separate expression vectors. For single vector expression, the encoding nucleic acids can be operationally linked to one common expression control sequence or linked to different expression control sequences, such as one inducible promoter and one constitutive promoter. The introduction of nucleic acid molecules into a host cell can be confirmed using methods well known in the art. Such methods include, for example, nucleic acid analysis such as Northern blots or polymerase chain reaction (PCR) amplification of mRNA, or immunoblotting for expression of gene products, or other suitable analytical methods to test the expression of an introduced nucleic acid sequence or its corresponding gene product. It is understood by those skilled in the art that the nucleic acid molecules are expressed in a sufficient amount to produce a desired product (*e.g.* an anti-GFRAL antibody as described herein), and it is further understood that expression levels can be optimized to obtain sufficient expression using methods well known in the art.

[00205] "Antibody-dependent cell-mediated cytotoxicity" or "ADCC" refers to a form of cytotoxicity in which secreted Ig bound onto Fc receptors (FcRs) present on certain cytotoxic cells (*e.g.,* Natural Killer (NK) cells, neutrophils, and macrophages) enable these cytotoxic effector cells to bind specifically to an antigen-bearing target cell and subsequently kill the target cell with cytotoxins. The antibodies "arm" the cytotoxic cells and are absolutely required for such killing. The primary cells for mediating ADCC, NK cells, express FcγRIII only, whereas monocytes express FcγRI, FcγRII and FcγRIII. FcR expression on hematopoietic cells is known (see, *e.g.,* Table 3, page 464, Ravetch and Kinet, Annu. Rev. Immunol. 9:457-92 (1991)). To assess ADCC activity of a molecule of interest, an *in vitro* ADCC assay, (see, *e.g.,* US Patent No. 5,500,362 or 5,821,337) may be performed. Useful effector cells for such assays include peripheral blood mononuclear cells (PBMC) and Natural Killer (NK) cells. Alternatively, or additionally, ADCC activity of the molecule of interest may be assessed *in vivo*, for example, in a animal model (*see*, *e.g.,* Clynes *et al.* (USA) 95:652-656 (1998)). Antibodies with little or no ADCC activity may be selected for use.

[00206] "Fc receptor" or "FcR" describes a receptor that binds to the Fc region of an antibody. The preferred FcR is a native sequence human FcR. Moreover, a preferred FcR is one that binds an IgG antibody (*e.g.,* a gamma receptor) and includes receptors of the FcγRI, FcγRII and FcγRIII subclasses, including allelic variants and alternatively spliced forms of these receptors. FcγRII receptors include FcγRIIA (an "activating receptor") and FcγRIIB (an "inhibiting receptor"), which have similar amino acid sequences that differ primarily in the cytoplasmic domains thereof (see, *e.g.,* review Daëron, Annu. Rev. Immunol. 15:203-234 (1997)). FcRs are known (see, *e.g.,* Ravetch and Kinet, Annu. Rev. Immunol. 9:457-492 (1991); Capel *et al.*, Immunomethods 4:25-34 (1994); and de Haas *et al.*, J. Lab. Clin. Med. 126:330-41 (1995)). Other FcRs, including those to be identified in the future, are encompassed by the term "FcR" herein. The term also includes the neonatal receptor, FcRn, which is responsible for the transfer of maternal IgGs to the fetus (see, *e.g.,* Guyer *et al.*, J. Immunol. 117:587 (1976) and Kim *et al.*, J. Immunol. 24:249 (1994)). Antibody variants with improved or diminished binding to FcRs have been described (see, *e.g.,* in WO 2000/42072; U.S. Patent Nos. 7,183,387, 7,332,581 and 7.335,742; Shields *et al.* J. Biol. Chem. 9(2):6591-6604 (2001)).

[00207] “Complement dependent cytotoxicity” or “CDC” refers to the lysis of a target cell in the presence of complement. Activation of the classical complement pathway is initiated by the binding of the first component of the complement system (C1q) to antibodies (of the appropriate subclass) which are bound to their cognate antigen. To assess complement activation, a CDC assay, (see, *e.g.,* Gazzano-Santoro *et al.*, J. Immunol. Methods 202:163 (1996)), may be performed. Polypeptide variants with altered Fc region amino acid sequences (polypeptides with a variant Fc region) and increased or decreased C1q binding capability have been described, (see, *e.g.,* US Patent No. 6,194,551, WO 1999/51642, Idusogie *et al.* J. Immunol. 164: 4178-4184 (2000)). Antibodies with little or no CDC activity may be selected for use.

[00208] In calculating percent identity, the sequences being compared may be aligned in a way that gives the largest match between the sequences. Computer program may be used to determine percent identity is the GCG program package, which includes GAP (Devereux et al., (1984) Nucl. Acid Res. 12:387; Genetics Computer Group, University of Wisconsin, Madison, Wis.). The computer algorithm GAP used to align the two polypeptides or polynucleotides for which the percent sequence identity is to be determined. The sequences may be aligned for optimal matching of their respective amino acid or nucleotide (the "matched span", as determined by the algorithm). A gap opening penalty (which is calculated as 3.times. the average diagonal, wherein the "average diagonal" is the average of the diagonal of the comparison matrix being used; the "diagonal" is the score or number assigned to each perfect amino acid match by the particular comparison matrix) and a gap extension penalty (which is usually 1/10 times the gap opening penalty), as well as a comparison matrix such as PAM 250 or BLOSUM 62 are used in conjunction with the algorithm. In certain embodiments, a standard comparison matrix (see, Dayhoff *et al.*, (1978) Atlas of Protein Sequence and Structure 5:345-352 for the PAM 250 comparison matrix; Henikoff *et al.*, (1992) Proc. Natl. Acad. Sci. U.S.A. 89:10915-10919 for the BLOSUM 62 comparison matrix) is also used by the algorithm.

[00209] Examplary parameters for determining percent identity for polypeptides or nucleotide sequences using the GAP program are the following: (i) Algorithm: Needleman *et al.*, 1970, J. Mol. Biol. 48:443-453; (ii) Comparison matrix: BLOSUM 62 from Henikoff *et al.*, 1992, supra; (iii) Gap Penalty: 12 (but with no penalty for end gaps) (iv) Gap Length Penalty: 4; and (v) Threshold of Similarity: 0.

[00210] Certain alignment schemes for aligning two amino acid sequences may result in matching of only a short region of the two sequences, and this small aligned region may have very high sequence identity even though there is no significant relationship between the two full-length sequences. Accordingly, the selected alignment method (*e.g.,* the GAP program) can be adjusted if so desired to result in an alignment that spans a number of amino acids, for example, at least 50 contiguous amino acids of the target polypeptide.

[00211] "Percent (%) amino acid sequence identity" with respect to a reference polypeptide sequence is defined as the percentage of amino acid residues in a candidate sequence that are identical with the amino acid residues in the reference polypeptide sequence, after aligning the sequences and introducing gaps, if necessary, to achieve the maximum percent sequence identity, and not considering any conservative substitutions as part of the sequence identity. Alignment for purposes of determining percent amino acid sequence identity can be achieved in various ways that are within the skill in the art, for instance, using publicly available computer software such as BLAST, BLAST-2, ALIGN or Megalign (DNASTAR) software. Those skilled in the art can determine appropriate parameters for aligning sequences, including any algorithms needed to achieve maximal alignment over the full length of the sequences being compared.

[00212] A "modification" of an amino acid residue/position refers to a change of a primary amino acid sequence as compared to a starting amino acid sequence, wherein the change results from a sequence alteration involving said amino acid residue/positions. For example, typical modifications include substitution of the residue with another amino acid (*e.g.,* a conservative or non-conservative substitution), insertion of one or more (*e.g.,* generally fewer than 5, 4 or 3) amino acids adjacent to said residue/position, and/or deletion of said residue/position.

[00213] An "epitope" is the site on the surface of an antigen molecule to which a single antibody molecule binds, such as a localized region on the surface of an antigen, such as a GFRAL polypeptide, a GFRAL polypeptide fragment or a GFRAL epitope, that is capable of being bound to one or more antigen binding regions of an antibody, and that has antigenic or immunogenic activity in an animal, such as a mammal (*e.g.,* a human), that is capable of eliciting an immune response. An epitope having immunogenic activity is a portion of a polypeptide that elicits an

antibody response in an animal. An epitope having antigenic activity is a portion of a polypeptide to which an antibody binds as determined by any method well known in the art, including, for example, by an immunoassay. Antigenic epitopes need not necessarily be immunogenic. Epitopes often consist of chemically active surface groupings of molecules such as amino acids or sugar side chains and have specific three dimensional structural characteristics as well as specific charge characteristics. The term, "epitope" specifically includes linear epitopes and conformational epitopes. A region of a polypeptide contributing to an epitope may be contiguous amino acids of the polypeptide or the epitope may come together from two or more non-contiguous regions of the polypeptide. The epitope may or may not be a three-dimensional surface feature of the antigen. In certain embodiments, a GFRAL epitope is a three-dimensional surface feature of a GFRAL polypeptide. In other embodiments, a GFRAL epitope is linear feature of a GFRAL polypeptide. Generally an antigen has several or many different epitopes and may react with many different antibodies.

[00214] An antibody binds "an epitope" or "essentially the same epitope" or "the same epitope" as a reference antibody, when the two antibodies recognize identical, overlapping or adjacent epitopes in a three-dimensional space. The most widely used and rapid methods for determining whether two antibodies bind to identical, overlapping or adjacent epitopes in a three-dimensional space are competition assays, which can be configured in a number of different formats, for example, using either labeled antigen or labeled antibody. In some assays, the antigen is immobilized on a 96-well plate, or expressed on a cell surface, and the ability of unlabeled antibodies to block the binding of labeled antibodies is measured using radioactive, fluorescent or enzyme labels.

[00215] "Epitope mapping" is the process of identifying the binding sites, or epitopes, of antibodies on their target antigens. Antibody epitopes may be linear epitopes or conformational epitopes. Linear epitopes are formed by a continuous sequence of amino acids in a protein. Conformational epitopes are formed of amino acids that are discontinuous in the protein sequence, but which are brought together upon folding of the protein into its three-dimensional structure. Induced epitopes are formed when the three dimensional structure of the protein is in an altered confirmation, such as following activation or binding of another protein or ligand.

[00216] "Epitope binning" is the process of grouping antibodies based on the epitopes they recognize. More particularly, epitope binning comprises methods and systems for discriminating the epitope recognition properties of different antibodies, using competition assays combined with computational processes for clustering antibodies based on their epitope recognition properties and identifying antibodies having distinct binding specificities.

[00217] A "GFRAL-mediated disease," "GFRAL-mediated disorder," and "GFRAL-mediated condition" are used interchangeably and refer to any disease, disorder or condition that is completely or partially caused by or is the result of GFRAL or the interaction of a GFRAL with GDF15 and/or alternatively any disease, disorder, or condition in which it is desirable to inhibit the *in vivo* effects of GDF15. GFRAL-mediated diseases, disorders, or conditions include GDF15-mediated diseases disorders or conditions.

[00218] A "GDF15-mediated disease," "GDF15-mediated disorder," and "GDF15-mediated condition" are used interchangeably and refer to any disease, disorder or condition that is: (i) completely or partially caused by; or (ii) is the result of a GDF15 protein (*e.g.*, an activity of a GDF15 protein, such as GDF15 signaling or elevated levels of a GDF15 protein) or the interaction of a GFRAL protein with a GDF15 protein and/or a RET protein, alternatively any disease, disorder, or condition in which it is desirable to inhibit the in vivo effects of GDF15. GDF15-mediated diseases, disorders, or conditions include involuntary weight loss, cachexia, sarcopenia, muscle wasting, bone wasting, a cardiovascular disease, a chronic inflammatory disease (*e.g.*, chronic renal disease, chronic obstructive pulmonary disease), and a cancer, including a cancer that has decreased sensitivity to (e.g., resistance to) a chemotherapeutic agent (*e.g.*, an anti-tumor antibody such as trastuzumab) that is induced by or related to a GDF15 protein.

[00219] The term "therapeutically effective amount" as used herein refers to the amount of an agent (*e.g.,* an antibody described herein or any other agent described herein) that is sufficient to reduce and/or ameliorate the severity and/or duration of a given disease, disorder or condition, and/or a symptom related thereto. A therapeutically effective amount of a agent, including a therapeutic agent, can be an amount necessary for (i) reduction or amelioration of the advancement or progression of a given disease, disorder, or condition, (ii) reduction or amelioration of

the recurrence, development or onset of a given disease, disorder or conditions, and/or (iii) to improve or enhance the prophylactic or therapeutic effect of another therapy (*e.g.,* a therapy other than the administration of an antibody provided herein). A "therapeutically effective amount" of a substance/molecule/agent of the present disclosure (*e.g.,* an anti-GFRAL antibody) may vary according to factors such as the disease state, age, sex, and weight of the individual, and the ability of the substance/molecule/agent, to elicit a desired response in the individual. A therapeutically effective amount encompasses an amount in which any toxic or detrimental effects of the substance/molecule/agent are outweighed by the therapeutically beneficial effects. In certain embodiments, the term "therapeutically effective amount" refers to an amount of an antibody or other agent (*e.g.,* or drug) effective to "treat" a disease, disorder, or condition, in a subject or mammal.

[00220] A "prophylactically effective amount" refers to an amount effective, at dosages and for periods of time necessary, to achieve the desired prophylactic result. Typically, but not necessarily, since a prophylactic dose is used in subjects prior to or at an earlier stage of a disease, disorder, or condition, a prophylactically effective amount may be less than a therapeutically effective amount.

[00221] "Chronic" administration refers to administration of the agent(s) in a continuous mode (*e.g.,* for a period of time such as days, weeks, months or years) as opposed to an acute mode, so as to maintain the initial therapeutic effect (activity) for an extended period of time. "Intermittent" administration is treatment that is not consecutively done without interruption, but rather is cyclic in nature.

[00222] Administration "in combination with" one or more further agents includes simultaneous (*e.g.,* concurrent) and consecutive administration in any order. The term "in combination" in the context of the administration of other therapies (*e.g.,* other agents) includes the use of more than one therapy (*e.g.,* one agent). The use of the term "in combination" does not restrict the order in which therapies are administered to a subject. A first therapy (*e.g.,* agent) can be administered before (*e.g.,* 1 minute, 15 minutes, 30 minutes, 45 minutes, 1 hour, 2 hours, 3 hours, 4 hours, 5 hours, 6 hours, 7 hours, 8 hours, 12 hours, 24 hours, 48 hours, 72 hours, 96 hours, 1 week, 2 weeks, 3 weeks, 4 weeks, 5 weeks, 6 weeks, 8 weeks, 8 weeks, 9 weeks, 10 weeks, 11 weeks, or 12 weeks), concurrently, or after (*e.g.,* 1 minute, 15 minutes, 30 minutes, 45 minutes, 1 hour, 2 hours, 3 hours, 4 hours, 5 hours, 6 hours,

7 hours, 8 hours, 12 hours, 24 hours, 48 hours, 72 hours, 96 hours, 1 week, 2 weeks, 3 weeks, 4 weeks, 5 weeks, 6 weeks, 7 weeks, 8 weeks, 9 weeks, 10 weeks, 11 weeks, or 12 weeks) the administration of a second therapy (*e.g.,* agent) to a subject which had, has, or is susceptible to or has a risk of a GDF15-mediated disease, disorder or condition.

[00223] Any additional therapy (*e.g.,* agent) can be administered in any order with the other additional therapies (*e.g.,* agents). In certain embodiments, the antibodies can be administered in combination with one or more therapies such as agents (*e.g.,* therapies, including agents, that are not the antibodies that are currently administered) to prevent, treat, manage, and/or ameliorate a GDF15-mediated disease, disorder or condition, or a symptom thereof. Non-limiting examples of therapies (*e.g.,* agents) that can be administered in combination with an antibody include, for example, analgesic agents, anesthetic agents, antibiotics, or immunomodulatory agents or any other agent listed in the U.S. Pharmacopoeia and/or Physician's Desk Reference. Examples of agents useful in combination therapy include, but are not limited to, the following: non-steroidal anti-inflammatory drug (NSAID) such as aspirin, ibuprofen, and other propionic acid derivatives (alminoprofen, benoxaprofen, bucloxic acid, carprofen, fenbufen, fenoprofen, fluprofen, flurbiprofen, indoprofen, ketoprofen, miroprofen, naproxen, oxaprozin, pirprofen, pranoprofen, suprofen, tiaprofenic acid, and tioxaprofen), acetic acid derivatives (indomethacin, acemetacin, alclofenac, clidanac, diclofenac, fenclofenac, fenclozic acid, fentiazac, fuirofenac, ibufenac, isoxepac, oxpinac, sulindac, tiopinac, tolmetin, zidometacin, and zomepirac), fenamic acid derivatives (flufenamic acid, meclofenamic acid, mefenamic acid, niflumic acid and tolfenamic acid), biphenylcarboxylic acid derivatives (diflunisal and flufenisal), oxicams (isoxicam, piroxicam, sudoxicam and tenoxican), salicylates (acetyl salicylic acid, sulfasalazine) and the pyrazolones (apazone, bezpiperylon, feprazone, mofebutazone, oxyphenbutazone, phenylbutazone). Other combinations include cyclooxygenase-2 (COX-2) inhibitors. Other agents for combination include steroids such as prednisolone, prednisone, methylprednisolone, betamethasone, dexamethasone, or hydrocortisone. Such a combination may be especially advantageous, since one or more side-effects of the steroid can be reduced or even eliminated by tapering the steroid dose required when treating subjects in combination with the present

antibodies. Additional examples of agents for combinations include cytokine suppressive anti-inflammatory drug(s) (CSAIDs); antibodies to or antagonists of other human cytokines or growth factors, for example, TNF, LT, IL-1β, IL-2, IL-6, IL-7, IL-8, IL-15, IL-16, IL-18, EMAP-II, GM-CSF, FGF, or PDGF. Combinations of agents may include TNF antagonists like chimeric, humanized or human TNF antibodies, REMICADE, anti-TNF antibody fragments (*e.g.,* CDP870), and soluble p55 or p75 TNF receptors, derivatives thereof, p75TNFRIgG (ENBREL®) or p55TNFR1gG (LENERCEPT®), soluble IL-13 receptor (sIL-13), and also TNFα converting enzyme (TACE) inhibitors; similarly IL-1 inhibitors (*e.g.,* Interleukin-1-converting enzyme inhibitors) may be effective. Other combinations include Interleukin 11, anti-P7s and p-selectin glycoprotein ligand (PSGL). Other examples of agents useful in combination therapy include interferon-β1a (AVONEX); interferon-β1b (BETASERON®); copaxone; hyperbaric oxygen; intravenous immunoglobulin; clabribine; and antibodies to or antagonists of other human cytokines or growth factors (*e.g.,* antibodies to CD40 ligand and CD80).

[00224] "Carriers" as used herein include pharmaceutically acceptable carriers, excipients, or stabilizers that are nontoxic to the cell or mammal being exposed thereto at the dosages and concentrations employed. Often the physiologically acceptable carrier is an aqueous pH buffered solution. Examples of physiologically acceptable carriers include buffers such as phosphate, citrate, and other organic acids; antioxidants including ascorbic acid; low molecular weight ((*e.g.,* less than about 10 amino acid residues) polypeptide; proteins, such as serum albumin, gelatin, or immunoglobulins; hydrophilic polymers such as polyvinylpyrrolidone; amino acids such as glycine, glutamine, asparagine, arginine or lysine; monosaccharides, disaccharides, and other carbohydrates including glucose, mannose, or dextrins; chelating agents such as EDTA; sugar alcohols such as mannitol or sorbitol; salt-forming counterions such as sodium; and/or nonionic surfactants such as TWEEN™, polyethylene glycol (PEG), and PLURONICS™. The term "carrier" can also refer to a diluent, adjuvant (*e.g.,* Freund's adjuvant (complete or incomplete)), excipient, or vehicle with which the therapeutic is administered. Such carriers, including pharmaceutical carriers, can be sterile liquids, such as water and oils, including those of petroleum, animal, vegetable or synthetic origin, such as peanut oil, soybean oil, mineral oil, sesame oil and the like. Water is a exemplary carrier when

a composition (*e.g.,* a pharmaceutical composition) is administered intravenously. Saline solutions and aqueous dextrose and glycerol solutions can also be employed as liquid carriers, particularly for injectable solutions. Suitable excipients (*e.g.,* pharmaceutical excipients) include starch, glucose, lactose, sucrose, gelatin, malt, rice, flour, chalk, silica gel, sodium stearate, glycerol monostearate, talc, sodium chloride, dried skim milk, glycerol, propylene, glycol, water, ethanol and the like. The composition, if desired, can also contain minor amounts of wetting or emulsifying agents, or pH buffering agents. Compositions can take the form of solutions, suspensions, emulsion, tablets, pills, capsules, powders, sustained-release formulations and the like. Oral compositions, including formulations, can include standard carriers such as pharmaceutical grades of mannitol, lactose, starch, magnesium stearate, sodium saccharine, cellulose, magnesium carbonate, etc. Examples of suitable pharmaceutical carriers are described in Remington's Pharmaceutical Sciences (1990) Mack Publishing Co., Easton, PA. Compositions, including pharmaceutical compounds, may contain a prophylactically or therapeutically effective amount of an anti-GFRAL antibody, for example, in isolated or purified form, together with a suitable amount of carrier so as to provide the form for proper administration to the subject (*e.g.,* patient). The formulation should suit the mode of administration.

[00225] The term "pharmaceutically acceptable" as used herein means being approved by a regulatory agency of the Federal or a state government, or listed in the U.S. Pharmacopeia, European Pharmacopeia or other generally recognized Pharmacopeia for use in animals, and more particularly in humans.

[00226] The term "pharmaceutical formulation" refers to a preparation which is in such form as to permit the biological activity of the active ingredient (*e.g.,* an anti-GFRAL antibody) to be effective, and which contains no additional components which are unacceptably toxic to a subject to which the formulation would be administered. Such formulation may be sterile.

[00227] A "sterile" formulation is aseptic or free from all living microorganisms and their spores.

[00228] "Polyclonal antibodies" as used herein refers to an antibody population generated in an immunogenic response to a protein having many epitopes and thus

includes a variety of different antibodies directed to the same and to different epitopes within the protein. Methods for producing polyclonal antibodies are known in the art (See, *e.g.,* Chapter 11 in: Short Protocols in Molecular Biology, (2002) 5th Ed., Ausubel *et al.*, eds., John Wiley and Sons, New York).

[00229] An "isolated nucleic acid" is a nucleic acid, for example, an RNA, DNA, or a mixed polymer, which is substantially separated from other genome DNA sequences as well as proteins or complexes such as ribosomes and polymerases, which naturally accompany a native sequence. An "isolated" nucleic acid molecule is one which is separated from other nucleic acid molecules which are present in the natural source of the nucleic acid molecule. Moreover, an "isolated" nucleic acid molecule, such as a cDNA molecule, can be substantially free of other cellular material, or culture medium when produced by recombinant techniques, or substantially free of chemical precursors or other chemicals when chemically synthesized. In a specific embodiment, one or more nucleic acid molecules encoding an antibody as described herein are isolated or purified. The term embraces nucleic acid sequences that have been removed from their naturally occurring environment, and includes recombinant or cloned DNA isolates and chemically synthesized analogues or analogues biologically synthesized by heterologous systems. A substantially pure molecule may include isolated forms of the molecule.

[00230] "Polynucleotide," or "nucleic acid," as used interchangeably herein, refer to polymers of nucleotides of any length, and include DNA and RNA. The nucleotides can be deoxyribonucleotides, ribonucleotides, modified nucleotides or bases, and/or their analogs, or any substrate that can be incorporated into a polymer by DNA or RNA polymerase or by a synthetic reaction. A polynucleotide may comprise modified nucleotides, such as methylated nucleotides and their analogs. "Oligonucleotide," as used herein, generally refers to short, generally single-stranded, generally synthetic polynucleotides that are generally, but not necessarily, less than about 200 nucleotides in length. The terms "oligonucleotide" and "polynucleotide" are not mutually exclusive. The description above for polynucleotides is equally and fully applicable to oligonucleotides. A cell that produces an anti-GFRAL antibody of the present disclosure may include a parent hybridoma cell, as well as bacterial and eukaryotic host cells into which nucleic acid

encoding the antibodies have been introduced. Suitable host cells are disclosed below.

[00231] As used herein, the terms "treat," "treatment" and "treating" refer to the reduction or amelioration of the progression, severity, and/or duration of a GDF15-mediated disease, disorder or condition resulting from the administration of one or more therapies (including, but not limited to, the administration of one or more prophylactic or therapeutic agents, such as an antibody provided herein). In some embodiments, the agent is an anti-GFRAL antibody. Treatment as used herein includes, but is not limited to, (i) increase body weight; (ii) maintain body weight; (iii) reduce body weight loss; (iv) increase body mass (*e.g.*, lean mass or fat mass); (v) maintain body mass (*e.g.*, lean mass or fat mass); (vi) reduce loss of body mass (*e.g.*, lean mass or fat mass), or any combination thereof.

[00232] As used herein, the term "prophylactic agent" refers to any agent that can totally or partially inhibit the development, recurrence, onset or spread of a GDF15-mediated disease, disorder or condition and/or symptom related thereto in a subject. In some embodiments, the term "prophylactic agent" refers to an antibody provided herein. In some embodiments, the term "prophylactic agent" refers to an agent other than an antibody provided herein. In some embodiments, a prophylactic agent is an agent which is known to be useful to or has been or is currently being used to prevent a GDF15-mediated disease, disorder or condition and/or a symptom related thereto or impede the onset, development, progression and/or severity of a GDF15-mediated disease, disorder or condition and/or a symptom related thereto. In some embodiments, the prophylactic agent is a fully human anti-GFRAL antibody, such as a fully human anti-GFRAL monoclonal antibody.

[00233] The term "prophylactic agent" refers to any agent that can totally or partially inhibit the development, recurrence, onset or spread of a GDF15-mediated disease, disorder or condition, or a symptom thereof in a subject. In certain embodiments, the term "prophylactic agent" refers to an anti-GFRAL antibody as described herein. In certain other embodiments, the term "prophylactic agent" refers to an agent other than an anti-GFRAL antibody as described herein. In certain embodiments, a prophylactic agent is an agent which is known to be useful to or has been or is currently being used to prevent a GDF15-mediated disease, disorder or condition, or a symptom thereof or impede the onset, development, progression and/or severity of

a GDF15-mediated disease, disorder or condition, or a symptom thereof. In specific embodiments, the prophylactic agent is a humanized anti-GFRAL antibody, such as a humanized anti-GFRAL monoclonal antibody.

[00234] The term "package insert" is used to refer to instructions customarily included in commercial packages of therapeutic products, that contain information about the indications, usage, dosage, administration, contraindications and/or warnings concerning the use of such therapeutic products.

[00235] The terms "prevent," "preventing," and "prevention" refer to the total or partial inhibition of the development, recurrence, onset or spread of a GDF15-mediated disease, disorder or condition, or a symptom thereof, resulting from the administration of a therapy or combination of therapies provided herein (*e.g.,* a combination of prophylactic or therapeutic agents, such as an antibody provided herein).

[00236] The term "recombinant antibody" refers to an antibody that is prepared, expressed, created or isolated by recombinant means. Recombinant antibodies can be antibodies expressed using a recombinant expression vector transfected into a host cell, antibodies isolated from a recombinant, combinatorial antibody library, antibodies isolated from an animal (*e.g.,* a mouse or cow) that is transgenic and/or transchromosomal for human immunoglobulin genes (see, *e.g.,* Taylor, L. D. *et al.* (1992) Nucl. Acids Res. 20:6287-6295) or antibodies prepared, expressed, created or isolated by any other means that involves splicing of immunoglobulin gene sequences to other DNA sequences. Such recombinant antibodies can have variable and constant regions, including those derived from human germline immunoglobulin sequences (See Kabat, E. A. *et al.* (1991) Sequences of Proteins of Immunological Interest, Fifth Edition, U.S. Department of Health and Human Services, NIH Publication No. 91-3242). In certain embodiments, however, such recombinant antibodies may be subjected to *in vitro* mutagenesis (or, when an animal transgenic for human Ig sequences is used, *in vivo* somatic mutagenesis) and thus the amino acid sequences of the VH and VL regions of the recombinant antibodies are sequences that, while derived from and related to human germline VH and VL sequences, may not naturally exist within the human antibody germline repertoire *in vivo*.

[00237] The term "side effects" encompasses unwanted and adverse effects of a therapy (*e.g.,* a prophylactic or therapeutic agent). Unwanted effects are not necessarily adverse.An adverse effect from a therapy (*e.g.,* a prophylactic or therapeutic agent) might be harmful or uncomfortable or risky. Examples of side effects include, diarrhea, cough, gastroenteritis, wheezing, nausea, vomiting, anorexia, abdominal cramping, fever, pain, loss of body weight, dehydration, alopecia, dyspenea, insomnia, dizziness, mucositis, nerve and muscle effects, fatigue, dry mouth, and loss of appetite, rashes or swellings at the site of administration, flu-like symptoms such as fever, chills and fatigue, digestive tract problems and allergic reactions. Additional undesired effects experienced by patients are numerous and known in the art. Many are described in the Physician's Desk Reference (60^{th} ed., 2006).

[00238] The terms "subject" and "patient" are used interchangeably herein and, in the context of the methods disclosed herein, refer to an animal that is the recipient of a therapy or preventive case. As used herein, in certain embodiments, a subject is a mammal, such as a non-primate (*e.g.,* cows, pigs, horses, cats, dogs, rats, etc.) or a primate (*e.g.,* monkey and human). In specific embodiments, the subject is a human. In one embodiment, the subject is a mammal (*e.g.,* a human) having a GDF15-mediated disease, disorder or condition. In another embodiment, the subject is a mammal (*e.g.,* a human) at risk of developing a GDF15-mediated disease, disorder or condition.

[00239] "Substantially all" refers to refers to at least about 60%, at least about 65%, at least about 70%, at least about 75%, at least about 80%, at least about 85%, at least about 90%, at least about 95%, at least about 96%, at least about 97%, at least about 98%, at least about 99%, or about 100%.

[00240] The term "therapeutic agent" refers to any agent that can be used in treating, preventing or alleviating a disease, disorder or condition, including in the treatment, prevention or alleviation of one or more symptoms of a GDF15-mediated disease, disorder or condition, or a symptom thereof. In certain embodiments, a therapeutic agent refers to an anti-GFRAL antibody as described herein. In certain other embodiments, a therapeutic agent refers to an agent other than an antibody provided herein. In certain embodiments, a therapeutic agent is an agent which is known to be useful for, or has been or is currently being used for the treatment,

prevention or alleviation of one or more symptoms of a GDF15-mediated disease, disorder or condition, or a symptom thereof.

[00241] The combination of therapies (*e.g.*, use of prophylactic or therapeutic agents) which is more effective than the additive effects of any two or more single therapy. For example, a synergistic effect of a combination of prophylactic and/or therapeutic agents permits the use of lower dosages of one or more of the agents and/or less frequent administration of the agents to a subject with a GDF15-mediated disease, disorder or condition. The ability to utilize lower dosages of prophylactic or therapeutic therapies and/or to administer the therapies less frequently reduces the toxicity associated with the administration of the therapies to a subject without reducing the efficacy of the therapies in the prevention, management, treatment or amelioration of a GDF15-mediated disease, disorder or condition. In addition, a synergistic effect can result in improved efficacy of therapies in the prevention, or in the management, treatment or amelioration of a GDF15-mediated disease, disorder or condition. Finally, synergistic effect of a combination of therapies (*e.g.*, prophylactic or therapeutic agents) can avoid or reduce adverse or unwanted side effects associated with the use of any single therapy. In some embodiments, the combination therapy comprises an antibody provided herein and insulin (*e.g.*, insulin supplementation). In some embodiments, the combination therapy comprises an-anti-GFRAL antibody and insulin, wherein the combination therapy comprises insulin at a lower daily dosage than the normal daily dosage in an insulin-only therapy. In some embodiments, the combination therapy comprises, *e.g.*, less than 90%, less than 80%, less than 70%, less than 60%, less than 50%, less than 40%, less than 30%, less than 20%, less than 15%, less than 10%, less than 5%, less than 3%, or less than 1% of the normal daily insulin dosage in an insulin-only therapy.

[00242] The term “therapy” refers to any protocol, method and/or agent that can be used in the prevention, management, treatment and/or amelioration of a GDF15-mediated disease, disorder or condition (*e.g.*, type 1 diabetes or type 2 diabetes). In some embodiments, the terms “therapies” and “therapy” refer to a biological therapy, supportive therapy, and/or other therapies useful in the prevention, management, treatment and/or amelioration of a GDF15-mediated disease, disorder or condition known to one of skill in the art such as medical personnel.

[00243] The term "detectable probe" refers to a composition that provides a detectable signal. The term includes, without limitation, any fluorophore, chromophore, radiolabel, enzyme, antibody or antibody fragment, and the like, that provide a detectable signal via its activity.

[00244] The term "diagnostic agent" refers to a substance administered to a subject that aids in the diagnosis of a disease, disorder, or conditions. Such substances can be used to reveal, pinpoint, and/or define the localization of a disease causing process. In certain embodiments, a diagnostic agent includes a substance that is conjugated to an anti-GFRAL antibody as described herein, that when administered to a subject or contacted to a sample from a subject aids in the diagnosis a GDF15-mediated disease, disorder or condition.

[00245] The term "detectable agent" refers to a substance that can be used to ascertain the existence or presence of a desired molecule, such as an anti-GFRAL antibody as described herein, in a sample or subject. A detectable agent can be a substance that is capable of being visualized or a substance that is otherwise able to be determined and/or measured (*e.g.,* by quantitation).

[00246] The term "encode" or grammatical equivalents thereof as it is used in reference to nucleic acid molecule refers to a nucleic acid molecule in its native state or when manipulated by methods well known to those skilled in the art that can be transcribed to produce mRNA, which is then translated into a polypeptide and/or a fragment thereof. The antisense strand is the complement of such a nucleic acid molecule, and the encoding sequence can be deduced therefrom.

[00247] The term "excipient" refers to an inert substance which is commonly used as a diluent, vehicle, preservative, binder, or stabilizing agent, and includes, but not limited to, proteins (*e.g.,* serum albumin, etc.), amino acids (*e.g.,* aspartic acid, glutamic acid, lysine, arginine, glycine, histidine, etc.), fatty acids and phospholipids (*e.g.,* alkyl sulfonates, caprylate, etc.), surfactants (*e.g.,* SDS, polysorbate, nonionic surfactant, etc.), saccharides (*e.g.,* sucrose, maltose, trehalose, etc.) and polyols (*e.g.,* mannitol, sorbitol, etc.). See, also, Remington's Pharmaceutical Sciences (1990) Mack Publishing Co., Easton, PA, which is hereby incorporated by reference in its entirety.

[00248] In the context of a peptide or polypeptide, the term "fragment" as used herein refers to a peptide or polypeptide that comprises less than the full length amino acid sequence. Such a fragment may arise, for example, from a truncation at the amino terminus, a truncation at the carboxy terminus, and/or an internal deletion of a residue(s) from the amino acid sequence. Fragments may, for example, result from alternative RNA splicing or from *in vivo* protease activity. In certain embodiments, fragments include polypeptides comprising an amino acid sequence of at least 5 contiguous amino acid residues, at least 10 contiguous amino acid residues, at least 15 contiguous amino acid residues, at least 20 contiguous amino acid residues, at least 25 contiguous amino acid residues, at least 40 contiguous amino acid residues, at least 50 contiguous amino acid residues, at least 60 contiguous amino residues, at least 70 contiguous amino acid residues, at least 80 contiguous amino acid residues, at least 90 contiguous amino acid residues, at least contiguous 100 amino acid residues, at least 125 contiguous amino acid residues, at least 150 contiguous amino acid residues, at least 175 contiguous amino acid residues, at least 200 contiguous amino acid residues, at least 250, at least 300, at least 350, at least 400, at least 450, at least 500, at least 550, at least 600, at least 650, at least 700, at least 750, at least 800, at least 850, at least 900, or at least 950, contiguous amino acid residues of the amino acid sequence of a GFRAL polypeptide or an antibody that binds to a GFRAL polypeptide. In some embodiments, a fragment of an antibody that binds to a GFRAL polypeptide retains at least 1, at least 2, or at least 3 or more functions of the antibody.

[00249] The terms "manage," "managing," and "management" refer to the beneficial effects that a subject derives from a therapy (*e.g.,* a prophylactic or therapeutic agent), which does not result in a cure of the disease. In certain embodiments, a subject is administered one or more therapies (*e.g.,* prophylactic or therapeutic agents, such as an antibody provided herein) to "manage" a GDF15-mediated disease, disorder or condition, or a symptom thereof, so as to prevent the progression or worsening of the disease.

[00250] "Administer" or "administration" refers to the act of injecting or otherwise physically delivering a substance as it exists outside the body (*e.g.,* an anti-GFRAL antibody as described herein) into a subject, such as by mucosal, intradermal, intravenous, intramuscular delivery and/or any other method of physical delivery

described herein or known in the art. When a disease, disorder, or condition, or a symptom thereof, is being treated, administration of the substance typically occurs after the onset of the disease, disorder, or condition, or symptoms thereof. When a disease, disorder, or condition or symptoms thereof, are being prevented, administration of the substance typically occurs before the onset of the disease, disorder, or condition, or symptoms thereof.

[00251] In the context of a polypeptide, the term "analog" as used herein refers to a polypeptide that possesses a similar or identical function as a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or an anti-GFRAL antibody but does not necessarily comprise a similar or identical amino acid sequence of a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or an anti-GFRAL antibody, or possess a similar or identical structure of a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or an anti-GFRAL antibody. A polypeptide that has a similar amino acid sequence refers to a polypeptide that satisfies at least one of the following: (a) a polypeptide having an amino acid sequence that is at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99% identical to the amino acid sequence of a GFRAL polypeptide *(e.g.,* SEQ ID NO:500, a fragment of a GFRAL polypeptide, or an anti-GFRAL antibody described herein; (b) a polypeptide encoded by a nucleotide sequence that hybridizes under stringent conditions to a nucleotide sequence encoding a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or an anti-GFRAL antibody (or VH or VL region thereof) described herein of at least 5 amino acid residues, at least 10 amino acid residues, at least 15 amino acid residues, at least 20 amino acid residues, at least 25 amino acid residues, at least 40 amino acid residues, at least 50 amino acid residues, at least 60 amino residues, at least 70 amino acid residues, at least 80 amino acid residues, at least 90 amino acid residues, at least 100 amino acid residues, at least 125 amino acid residues, or at least 150 amino acid residues (see, *e.g.,* Sambrook *et al.* (2001) Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY; Maniatis *et al.* (1982) Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Press, Cold Spring Harbor, NY); and (c) a polypeptide encoded by a nucleotide sequence that is at least 30%, at least 35%, at least 40%, at least 45%, at

least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99% identical to the nucleotide sequence encoding a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or an anti-GFRAL antibody (or VH or VL region thereof) described herein. A polypeptide with similar structure to a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or an anti-GFRAL antibody described herein refers to a polypeptide that has a similar secondary, tertiary or quaternary structure of a GFRAL polypeptide, a fragment of a GFRAL, or a GFRAL antibody described herein. The structure of a polypeptide can determined by methods known to those skilled in the art, including but not limited to, X-ray crystallography, nuclear magnetic resonance, and crystallographic electron microscopy.

[00252] The term "composition" is intended to encompass a product containing the specified ingredients (*e.g.,* an antibody provided herein) in, optionally, the specified amounts, as well as any product which results, directly or indirectly, from combination of the specified ingredients in, optionally, the specified amounts.

[00253] In the context of a polypeptide, the term "derivative" as used herein refers to a polypeptide that comprises an amino acid sequence of a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or an antibody that binds to a GFRAL polypeptide which has been altered by the introduction of amino acid residue substitutions, deletions or additions. The term "derivative" as used herein also refers to a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or an antibody that binds to a GFRAL polypeptide which has been chemically modified, *e.g.,* by the covalent attachment of any type of molecule to the polypeptide. For example, but not by way of limitation, a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or a GFRAL antibody may be chemically modified, *e.g.,* by glycosylation, acetylation, pegylation, phosphorylation, amidation, derivatization by known protecting/blocking groups, proteolytic cleavage, linkage to a cellular ligand or other protein, etc. The derivatives are modified in a manner that is different from naturally occurring or starting peptide or polypeptides, either in the type or location of the molecules attached. Derivatives further include deletion of one or more chemical groups which are naturally present on the peptide or polypeptide. A derivative of a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or a GFRAL antibody may be chemically modified by chemical modifications using techniques known to those of skill in the art, including, but not

limited to specific chemical cleavage, acetylation, formulation, metabolic synthesis of tunicamycin, etc. Further, a derivative of a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or a GFRAL antibody may contain one or more non-classical amino acids. A polypeptide derivative possesses a similar or identical function as a GFRAL polypeptide, a fragment of a GFRAL polypeptide, or a GFRAL antibody described herein.

[00254] The term "involuntary body weight loss" refers to the unintended loss of body weight that is observed in many conditions such as cachexia, liver cirrhosis, hyperthyroidism, chronic kidney disease, Parkinson's disease, cancer, eating disorder, and sarcopenia.

[00255] The term "cachexia" refers to wasting syndrome that is marked with loss of weight, muscle atrophy, fatigue, weakness, and significant loss of appetite in someone who is not actively trying to lose weight. Cachexia can greatly contribute to morbidity of patients suffering from some chronic diseases (*e.g.*, cancer, chronic renal disease, chronic inflammatory disease, muscle wasting, such as muscular dystrophy, and anorexia nervosa). For example, in late stage cancer, cachexia is common (occurring in most terminally ill cancer patients), and is responsible for about a quarter of all cancer-related deaths.

COMPOSITIONS AND METHODS OF MAKING THE SAME

[00256] Binding proteins such as antibodies that bind to GFRAL (*e.g.,* human GFRAL) are provided. Antibodies of the present disclosure are useful, for example, for the diagnosis or treatment of GDF15-mediated diseases, disorders, or conditions. In certain embodiments, antibodies of the present disclosure are useful for the diagnosis or treatment of a disease, disorder, or condition, such as involuntary body weight loss, including, but not limited to, involuntary body weight loss in a subject suffering from cachexia or a chronic disease (*e.g.*, liver cirrhosis, hyperthyroidism, Parkinson's disease, cancer, chronic renal disease, chronic obstructive pulmonary disease, AIDS, tuberculosis, chronic inflammatory disease, sepsis, muscle wasting, and anorexia nervosa) or broadly any disease, disorder, or condition in which it is desirable to inhibit the *in vivo* effects of GDF15.

[00257] Provided herein are antibodies (*e.g.*, monoclonal antibodies) that bind to a GFRAL polypeptide, a GFRAL polypeptide fragment, GFRAL peptide, or a GFRAL

epitope. In some embodiments, the anti-GFRAL antibodies bind to the extracellular domain (ECD) of GFRAL. Also provided are antibodies that competitively block an anti-GFRAL antibody provided herein from binding to a GFRAL polypeptide. The anti-GFRAL antibodies provided herein can also be conjugated or recombinantly fused to a diagnostic agent, detectable agent or therapeutic agent. Further provided are compositions comprising an anti-GFRAL antibody.

[00258] Also provided herein are isolated nucleic acid molecules encoding an immunoglobulin heavy chain, light chain, VH region, VL region, VH CDR1, VH CDR2, VH CDR3, VL CDR1, VL CDR2, and/or VL CDR3 of anti-GFRAL antibodies that bind to a GFRAL polypeptide, a GFRAL polypeptide fragment, a GFRAL peptide or a GFRAL epitope. Further provided are vectors and host cells comprising nucleic acid molecules encoding anti-GFRAL antibodies that bind to a GFRAL polypeptide, a GFRAL polypeptide fragment, a GFRAL peptide or a GFRAL epitope. Also provided are methods of making antibodies that bind to a GFRAL polypeptide, a GFRAL polypeptide fragment, a GFRAL peptide or a GFRAL epitope.

[00259] Methods of using the anti-GFRAL antibodies are provided herein. The methods include treating, preventing or alleviating a GDF15-mediated disease, disorder or condition, including treating, preventing or alleviating one or more symptoms of a GDF15-mediated disease, disorder or condition in a subject (*e.g.*, patient). Non limiting examples of GDF15-mediated diseases, disorders, or conditions include involuntary weight loss, a waisting disease, involuntary body weight loss in a subject suffering from cachexia or a chronic disease (*e.g.*, liver cirrhosis, hyperthyroidism, Parkinson's disease, cancer, chronic renal disease, chronic obstructive pulmonary disease, AIDS, tuberculosis, chronic inflammatory disease, sepsis, muscle wasting, and anorexia nervosa). Other of diseases, disorders, or conditions in which a subject can suffer from involuntary weight loss include eating disorders, muscular dystrophy or multiple sclerosis.

Anti-GFRAL Antibodies

[00260] In some embodiments, the present disclosure provides anti-GFRAL antibodies that may find use herein as therapeutic agents. Exemplary antibodies

include polyclonal, monoclonal, humanized, human, bispecific, and heteroconjugate antibodies, as well as variants thereof having improved affinity or other properties.

[00261] In some embodiments, provided herein are antibodies that bind to GFRAL, including a GFRAL polypeptide, a GFRAL polypeptide fragment, a GFRAL peptide or a GFRAL epitope. In some embodiments the anti-GFRAL antibodies are humanized antibodies (*e.g.,* comprising human constant regions) that bind GFRAL, including GFRAL polypeptide, a GFRAL polypeptide fragment, a GFRAL peptide or a GFRAL epitope.

[00262] In some embodiments, an anti-GFRAL antibody comprises a VH region, VL region, VH CDR1, VH CDR2, VH CDR3, VL CDR1, VL CDR2, and/or VL CDR3 of any one of the monoclonal antibodies described herein (*e.g.*, 1C1, 3P10, 12A3, 5F12, 5A20, 8D8, 17J16, 25M22, 2B8, 22N5, 2I23, 6N16, 1B3, 19K19, 2B3, 8C10, 2A9, 24G2, 6G9, 2B11,1A3, P1B6, P1H8, or P8G4), such as an amino acid sequence depicted in Tables 1-24. Accordingly, in some embodiments, the isolated antibody or functional fragment thereof provided herein comprises one, two, and/or three heavy chain CDRs and/or one, two, and/or three light chain CDRs from: (a) the antibody designated 1C1; (b) the antibody designated 3P10; (c) the antibody designated 12A3; (d) the antibody designated 5F12; (e) the antibody designated 5A20; (f) the antibody designated 8D8; (g) the antibody designated 17J16; (h) t the antibody designated 25M22; (i) the antibody designated 2B8; (j) the antibody designated 22N5; (k) the antibody designated 2I23; (l) the antibody designated 6N16; (m) the antibody designated 1B3; (n) the antibody designated 19K19; (o) the antibody designated 2B3; (p) the antibody designated 8C10; (q) the antibody designated 2A9; (r) the antibody designated 24G2; (s) the antibody designated 6G9; (t) the antibody designated 2B11; (u) the antibody designated 1A3; (v) the antibody designated P1B6; (w) the antibody designated P1H8; (x) the antibody designated P8G4; or the antibody designated 1C1 to P8G4, as shown in Tables 1-24.

[00263] The antibody designated 1C1 comprises a VH sequence that is SEQ ID NO: 1 and a VL sequence that is SEQ ID NO: 2.

[00264] The antibody designated 3P10 comprises a VH sequence that is SEQ ID NO: 3 and a VL sequence that is SEQ ID NO: 4,

[00265] The antibody designated 12A3 comprises a VH sequence that is SEQ ID NO: 5 and a VL sequence that is SEQ ID NO: 6.

[00266] The antibody designated 5F12 comprises a VH sequence that is SEQ ID NO: 7 and a VL sequence that is SEQ ID NO: 8.

[00267] The antibody designated 5A20 comprises a VH sequence that is SEQ ID NO: 9 and a VL sequence that is SEQ ID NO: 10.

[00268] The antibody designated 8D8 comprises a VH sequence that is SEQ ID NO: 11 and a VL sequence that is SEQ ID NO: 12.

[00269] The antibody designated 17J16 comprises a VH sequence that is SEQ ID NO: 13 and a VL sequence that is SEQ ID NO: 14.

[00270] The antibody designated 25M22 comprises a VH sequence that is SEQ ID NO: 15 and a VL sequence that is SEQ ID NO: 16.

[00271] The antibody designated 2B8 comprises a VH sequence that is SEQ ID NO: 17 and a VL sequence that is SEQ ID NO: 18.

[00272] The antibody designated 22N5 comprises a VH sequence that is SEQ ID NO: 19 and a VL sequence that is SEQ ID NO: 20.

[00273] The antibody designated 2I23 comprises a VH sequence that is SEQ ID NO: 21 and a VL sequence that is SEQ ID NO: 22.

[00274] The antibody designated 6N16 comprises a VH sequence that is SEQ ID NO: 23 and a VL sequence that is SEQ ID NO: 24.

[00275] The antibody designated 1B3 comprises a VH sequence that is SEQ ID NO: 25 and a VL sequence that is SEQ ID NO: 26.

[00276] The antibody designated 19K19 comprises a VH sequence that is SEQ ID NO: 27 and a VL sequence that is SEQ ID NO: 28.

[00277] The antibody designated 2B3 comprises a VH sequence that is SEQ ID NO: 29 and a VL sequence that is SEQ ID NO: 30.

[00278] The antibody designated 8C10 comprises a VH sequence that is SEQ ID NO: 31 and a VL sequence that is SEQ ID NO: 32.

[00279] The antibody designated 2A9 comprises a VH sequence that is SEQ ID NO: 33 and a VL sequence that is SEQ ID NO: 34.

[00280] The antibody designated 24G2 comprises a VH sequence that is SEQ ID NO: 35 and a VL sequence that is SEQ ID NO: 36.

[00281] The antibody designated 6G9 comprises a VH sequence that is SEQ ID NO: 37 and a VL sequence that is SEQ ID NO: 38.

[00282] The antibody designated 2B11 comprises a VH sequence that is SEQ ID NO: 39 and a VL sequence that is SEQ ID NO: 40.

[00283] The antibody designated 1A3 comprises a VH sequence that is SEQ ID NO: 480 and a VL sequence that is SEQ ID NO: 481.

[00284] The antibody designated P1B6 comprises a VH sequence that is SEQ ID NO: 482 and a VL sequence that is SEQ ID NO: 483.

[00285] The antibody designated P1H8 comprises a VH sequence that is SEQ ID NO: 484 and a VL sequence that is SEQ ID NO: 485.

[00286] The antibody designated P8G4 comprises a VH sequence that is SEQ ID NO: 486 and a VL sequence that is SEQ ID NO: 487.

Table 1: Antibody 1C1 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GFSLNDYGVH (SEQ ID NO: 41)	GFSLNDYG (SEQ ID NO: 42)	DYGVH (SEQ ID NO: 43)	GFSLNDY (SEQ ID NO: 44)	NDYGVH (SEQ ID NO: 45)	GFSLNDYGVH (SEQ ID NO: 41)
	VH CDR2	VIWSGGRTDYNAAFIS (SEQ ID NO: 132)	IWSGGRT (SEQ ID NO: 133)	VIWSGGRTDYNAAFIS (SEQ ID NO: 132)	SGG (SEQ ID NO: 134)	WLGVIWSGGRTD (SEQ ID NO: 135)	VIWSGGRTD (SEQ ID NO: 136)
	VH CDR3	WALYFLYGGSMDY (SEQ ID NO: 221)	ARWALYFLYGGSMDY (SEQ ID NO: 222)	WALYFLYGGSMDY (SEQ ID NO: 221)	ALYFLYGGSMD (SEQ ID NO: 223)	ARWALYFLYGGSMD (SEQ ID NO: 224)	WALYFLYGGSMDY (SEQ ID NO: 221)
VL CDR Seq.	*VL CDR1*	RSSQSLVHSSGITYLH (SEQ ID NO: 297)	QSLVHSSGITY (SEQ ID NO: 298)	RSSQSLVHSSGITYLH (SEQ ID NO: 297)	SQSLVHSSGITY (SEQ ID NO: 299)	VHSSGITYLHWY (SEQ ID NO: 300)	RSSQSLVHSSGITYLH (SEQ ID NO: 297)
	VL CDR2	KLSNRFS (SEQ ID NO: 373)	KLS (SEQ ID NO: 374)	KLSNRFS (SEQ ID NO: 373)	KLS (SEQ ID NO: 374)	LLIYKLSNRF (SEQ ID NO: 375)	KLSNRFS (SEQ ID NO: 373)
	VL CDR3	SQSTHVPPWT (SEQ ID NO: 423)	SQSTHVPPWT (SEQ ID NO: 423)	SQSTHVPPWT (SEQ ID NO: 423)	STHVPPW (SEQ ID NO: 424)	SQSTHVPPW (SEQ ID NO: 425)	SQSTHVPPWT (SEQ ID NO: 423)
VH Sequence: QMQLKQSGPGLVQPSQSLSITCTVSGFSLNDYGVHWIRQSPGKGLEWLGVIWSGGRTDYNAAFISRLSISKDNSKSQVFFKMSSLQPQDTAIYYC ARWALYFLYGGSMDYWGQGTSVTVSS (SEQ ID NO: 1)						
VL Sequence: DVVLTQTPLSLPVSPGDQASISCRSSQSLVHSSGITYLHWYLQKPGQSPKLLIYKLSNRFSGVPDRFSGSGSGTDFTLKISRVEAEDLGVYFCSQS THVPPWTFGGGTKLEIK (SEQ ID NO: 2)						

Table 2: Antibody 3P10 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTDYGVI (SEQ ID NO: 46)	GYTFTDYG (SEQ ID NO: 47)	DYGVI (SEQ ID NO: 48)	GYTFTDY (SEQ ID NO: 49)	TDYGVI (SEQ ID NO: 50)	GYTFTDYGVI (SEQ ID NO: 46)
	VH CDR2	WINTYTGEPTYADDLKG (SEQ ID NO: 137)	INTYTGEP (SEQ ID NO: 138)	WINTYTGEPTYADDLKG (SEQ ID NO: 137)	TYTG (SEQ ID NO: 139)	WMGWINTYTGEPT (SEQ ID NO: 140)	WINTYTGEPT (SEQ ID NO: 141)
	VH CDR3	RYGPEDIDY (SEQ ID NO: 225)	ARRYGPEDIDY (SEQ ID NO: 226)	RYGPEDIDY (SEQ ID NO: 225)	YGPEDID (SEQ ID NO: 227)	ARRYGPEDID (SEQ ID NO: 228)	RYGPEDIDY (SEQ ID NO: 225)
VL CDR Seq.	*VL CDR1*	RASESVDNYGISFMS (SEQ ID NO: 301)	ESVDNYGISF (SEQ ID NO: 302)	RASESVDNYGISFMS (SEQ ID NO: 301)	SESVDNYGISF (SEQ ID NO: 303)	DNYGISFMSWF (SEQ ID NO: 304)	RASESVDNYGISFMS (SEQ ID NO: 301)
	VL CDR2	AASHQGS (SEQ ID NO: 376)	AAS (SEQ ID NO: 377)	AASHQGS (SEQ ID NO: 376)	AAS (SEQ ID NO: 377)	LLIYAASHQG (SEQ ID NO: 378)	AASHQGS (SEQ ID NO: 376)
	VL CDR3	LQSKEVPWT (SEQ ID NO: 426)	LQSKEVPWT (SEQ ID NO: 426)	LQSKEVPWT (SEQ ID NO: 426)	SKEVPW (SEQ ID NO: 427)	LQSKEVPW (SEQ ID NO: 428)	LQSKEVPWT (SEQ ID NO: 426)
VH Sequence: QIQLVQSGPELKKPGETVKISCKASGYTFTDYGVIWVKQAPGKALKWMGWINTYTGEPTYADDLKGRFAFSLETSASSASLQINNLKNEDTATYFC ARRYGPEDIDYWGQGTTLTVSS (SEQ ID NO: 3)						
VL Sequence: DIVLTQSPVSLAVSLGQRATISCRASESVDNYGISFMSWFQQKPGQPPKLLIYAASHQGSGVPARFSGSGSGTDFSLNIHPMEEDDSAMYFCLQS KEVPWTFGGGTKLEIK (SEQ ID NO: 4)						

Table 3: Antibody 12A3 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYPFTIYGMN (SEQ ID NO: 51)	GYPFTIYG (SEQ ID NO: 52)	IYGMN (SEQ ID NO: 53)	GYPFTIY (SEQ ID NO: 54)	TIYGMN (SEQ ID NO: 55)	GYPFTIYGMN (SEQ ID NO: 51)
	VH CDR2	WINTYSGVPTYADDFKG (SEQ ID NO: 142)	INTYSGVP (SEQ ID NO: 143)	WINTYSGVPTYADDFKG (SEQ ID NO: 142)	TYSG (SEQ ID NO: 144)	WMGWINTYSGVPT (SEQ ID NO: 145)	WINTYSGVPT (SEQ ID NO: 146)
	VH CDR3	ATGNY (SEQ ID NO: 229)	ASATGNY (SEQ ID NO: 230)	ATGNY (SEQ ID NO: 229)	TGN (SEQ ID NO: 231)	ASATGN (SEQ ID NO: 232)	ATGNY (SEQ ID NO: 229)
VL CDR Seq.	*VL CDR1*	RASQDIGSSLN (SEQ ID NO: 305)	QDIGSS (SEQ ID NO: 306)	RASQDIGSSLN (SEQ ID NO: 305)	SQDIGSS (SEQ ID NO: 307)	GSSLNWL (SEQ ID NO: 308)	RASQDIGSSLN (SEQ ID NO: 305)
	VL CDR2	ATSSLDS (SEQ ID NO: 379)	ATS (SEQ ID NO: 380)	ATSSLDS (SEQ ID NO: 379)	ATS (SEQ ID NO: 380)	RLIYATSSLD (SEQ ID NO: 381)	ATSSLDS (SEQ ID NO: 379)
	VL CDR3	LQYASSPYT (SEQ ID NO: 429)	LQYASSPYT (SEQ ID NO: 429)	LQYASSPYT (SEQ ID NO: 429)	YASSPY (SEQ ID NO: 430)	LQYASSPY (SEQ ID NO: 431)	LQYASSPYT (SEQ ID NO: 429)
VH Sequence: QIQLVQSGPELKKPGETVKISCKASGYPFTIYGMNWVEQAPGKGLKWMGWINTYSGVPTYADDFKGRFAFSLETSASTAYLQINNLKDEDTATYF CASATGNYWGQGTTLTVSS (SEQ ID NO: 5)						
VL Sequence: DIQMTQSPSSLSASLGERVSLTCRASQDIGSSLNWLQQEPDGTIKRLIYATSSLDSGVPKRFSGSRSGSDYSLTISSLESEDFVDYYCLQYASSPYT FGGGTKVEIK (SEQ ID NO: 6)						

Table 4: Antibody 5F12 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTDYYIN (SEQ ID NO: 56)	GYTFTDYY (SEQ ID NO: 57)	DYYIN (SEQ ID NO: 58)	GYTFTDY (SEQ ID NO: 49)	TDYYIN (SEQ ID NO: 59)	GYTFTDYYIN (SEQ ID NO: 56)
	VH CDR2	RIYPGNGNTYHNEKFKG (SEQ ID NO: 147)	IYPGNGNT (SEQ ID NO: 148)	RIYPGNGNTYHNEKFKG (SEQ ID NO: 147)	PGNG (SEQ ID NO: 149)	WIARIYPGNGNTY (SEQ ID NO: 150)	RIYPGNGNTY (SEQ ID NO: 151)
	VH CDR3	EGLYYDYDRYFDY (SEQ ID NO: 233)	AREGLYYDYDRYFDY (SEQ ID NO: 234)	EGLYYDYDRYFDY (SEQ ID NO: 233)	GLYYDYDRYFD (SEQ ID NO: 235)	AREGLYYDYDRYFD (SEQ ID NO: 236)	EGLYYDYDRYFDY (SEQ ID NO: 233)
VL CDR Seq.	*VL CDR1*	RASESVDTYGNSFMH (SEQ ID NO: 309)	ESVDTYGNSF (SEQ ID NO: 310)	RASESVDTYGNSFMH (SEQ ID NO: 309)	SESVDTYGNSF (SEQ ID NO: 311)	DTYGNSFMHWY (SEQ ID NO: 312)	RASESVDTYGNSFMH (SEQ ID NO: 309)
	VL CDR2	LASNLES (SEQ ID NO: 382)	LAS (SEQ ID NO: 383)	LASNLES (SEQ ID NO: 382)	LAS (SEQ ID NO: 383)	LLIYLASNLE (SEQ ID NO: 384)	LASNLES (SEQ ID NO: 382)
	VL CDR3	HQNNEDPPA (SEQ ID NO: 432)	HQNNEDPPA (SEQ ID NO: 432)	HQNNEDPPA (SEQ ID NO: 432)	NNEDPP (SEQ ID NO: 433)	HQNNEDPP (SEQ ID NO: 434)	HQNNEDPPA (SEQ ID NO: 432)
VH Sequence: QVQLKQSGTELVRPGASVKLSCKASGYTFTDYYINWVKQRPGQGLEWIARIYPGNGNTYHNEKFKGKATLTAEKSSSTAYMQLSSLTSEDSAVYFCAREGLYYDYDRYFDYWGQGTALTVSS (SEQ ID NO: 7)						
VL Sequence: NIVLTQSPASLAVSLGQRATISCRASESVDTYGNSFMHWYQQKPGQPPKLLIYLASNLESGVPARFSGSGSRTDFTLTIDPVEADDAATYYCHQNNEDPPAFGGGTKLEIK (SEQ ID NO: 8)						

Table 5: Antibody 5A20 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTDYWIE (SEQ ID NO: 60)	GYTFTDYW (SEQ ID NO: 61)	DYWIE (SEQ ID NO: 62)	GYTFTDY (SEQ ID NO: 49)	TDYWIE (SEQ ID NO: 63)	GYTFTDYWIE (SEQ ID NO: 60)
	VH CDR2	EILLGSDSIHFNEKFKG (SEQ ID NO: 152)	ILLGSDSI (SEQ ID NO: 153)	EILLGSDSIHFNEKFKG (SEQ ID NO: 152)	LGSD (SEQ ID NO: 154)	WIGEILLGSDSIH (SEQ ID NO: 155)	EILLGSDSIH (SEQ ID NO: 156)
	VH CDR3	QDWNWYFDV (SEQ ID NO: 237)	VRQDWNWYFDV (SEQ ID NO: 238)	QDWNWYFDV (SEQ ID NO: 237)	DWNWYFD (SEQ ID NO: 239)	VRQDWNWYFD (SEQ ID NO: 240)	QDWNWYFDV (SEQ ID NO: 237)
VL CDR Seq.	*VL CDR1*	KSSQSLLDFDGKTYLN (SEQ ID NO: 313)	QSLLDFDGKTY (SEQ ID NO: 314)	KSSQSLLDFDGKTYLN (SEQ ID NO: 313)	SQSLLDFDGKTY (SEQ ID NO: 315)	LDFDGKTYLNWY (SEQ ID NO: 316)	KSSQSLLDFDGKTYLN (SEQ ID NO: 313)
	VL CDR2	LVSKLDS (SEQ ID NO: 385)	LVS (SEQ ID NO: 386)	LVSKLDS (SEQ ID NO: 385)	LVS (SEQ ID NO: 386)	RLFYLVSKLD (SEQ ID NO: 387)	LVSKLDS (SEQ ID NO: 385)
	VL CDR3	WQGTHFPRT (SEQ ID NO: 435)	WQGTHFPRT (SEQ ID NO: 435)	WQGTHFPRT (SEQ ID NO: 435)	GTHFPR (SEQ ID NO: 436)	WQGTHFPR (SEQ ID NO: 437)	WQGTHFPRT (SEQ ID NO: 435)
VH Sequence: QVQLQQSGPELMKPGASVILSCKAIGYTFTDYWIEWVKERPGHGLEWIGEILLGSDSIHFNEKFKGKATISADTSSNTAYMQLSSLTTEDSAIYYCVR QDWNWYFDVWGTGTTVTVSS (SEQ ID NO: 9)						
VL Sequence: DVVMTQTPLTLSVTIGHPASISCKSSQSLLDFDGKTYLNWLFQRPGQSPKRLFYLVSKLDSGVPDRFTGSGSGTDFTLKISRVEAEDLGVYYCWQG THFPRTFGGGTKLEIK (SEQ ID NO: 10)						

Table 6: Antibody 8D8 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GFSLSRYSVH (SEQ ID NO: 64)	GFSLSRYS (SEQ ID NO: 65)	RYSVH (SEQ ID NO: 66)	GFSLSRY (SEQ ID NO: 67)	SRYSVH (SEQ ID NO: 68)	GFSLSRYSVH (SEQ ID NO: 64)
	VH CDR2	MIWGFGSTDYNSALKS (SEQ ID NO: 157)	IWGFGST (SEQ ID NO: 220)	MIWGFGSTDYNSALKS (SEQ ID NO: 157)	GFG (SEQ ID NO: 158)	WLGMIWGFGSTD (SEQ ID NO: 159)	MIWGFGSTD (SEQ ID NO: 160)
	VH CDR3	IHTTAGSY (SEQ ID NO: 241)	ARIHTTAGSY (SEQ ID NO: 242)	IHTTAGSY (SEQ ID NO: 241)	HTTAGS (SEQ ID NO: 243)	ARIHTTAGS (SEQ ID NO: 244)	IHTTAGSY (SEQ ID NO: 241)
VL CDR Seq.	*VL CDR1*	KASQNVGTNVA (SEQ ID NO: 317)	QNVGTN (SEQ ID NO: 318)	KASQNVGTNVA (SEQ ID NO: 317)	SQNVGTN (SEQ ID NO: 319)	GTNVAWY (SEQ ID NO: 320)	KASQNVGTNVA (SEQ ID NO: 317)
	VL CDR2	STSYRYS (SEQ ID NO: 388)	STS (SEQ ID NO: 389)	STSYRYS (SEQ ID NO: 388)	STS (SEQ ID NO: 389)	ALVYSTSYRY (SEQ ID NO: 390)	STSYRYS (SEQ ID NO: 388)
	VL CDR3	HQYNSYPLT (SEQ ID NO: 438)	HQYNSYPLT (SEQ ID NO: 438)	HQYNSYPLT (SEQ ID NO: 438)	YNSYPL (SEQ ID NO: 439)	HQYNSYPL (SEQ ID NO: 440)	HQYNSYPLT (SEQ ID NO: 438)
VH Sequence: QVQLKESGPGLVAPSQSLSITCTVSGFSLSRYSVHWVRQPPGKGLEWLGMIWGFGSTDYNSALKSRLSITKDNSKSQFFLKMNSLQTDDTAMYYC ARIHTTAGSYWGQGTLVTVSA (SEQ ID NO: 11)						
VL Sequence: DIVMTQSQKFMSTSIGDRVSVTCKASQNVGTNVAWYQQKPGQSPKALVYSTSYRYSGVPDRFTGSGSGTDFTLTISNVQSEDLAEYFCHQYNSYP LTFGAGTKLELK (SEQ ID NO: 12)						

Table 7: Antibody 17J16 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTDYWIH (SEQ ID NO: 69)	GYTFTDYW (SEQ ID NO: 61)	DYWIH (SEQ ID NO: 70)	GYTFTDY (SEQ ID NO: 49)	TDYWIH (SEQ ID NO: 71)	GYTFTDYWIH (SEQ ID NO: 69)
	VH CDR2	YINPNSNYAEYNQKFKV (SEQ ID NO: 161)	INPNSNYA (SEQ ID NO: 162)	YINPNSNYAEYNQKFKV (SEQ ID NO: 161)	PNSN (SEQ ID NO: 163)	WIGYINPNSNYAE (SEQ ID NO: 164)	YINPNSNYAE (SEQ ID NO: 165)
	VH CDR3	FDWNWYFHV (SEQ ID NO: 245)	ARFDWNWYFHV (SEQ ID NO: 246)	FDWNWYFHV (SEQ ID NO: 245)	DWNWYFH (SEQ ID NO: 247)	ARFDWNWYFH (SEQ ID NO: 248)	FDWNWYFHV (SEQ ID NO: 245)
VL CDR Seq.	*VL CDR1*	KSSQSLSDSDGKTYLN (SEQ ID NO: 321)	QSLSDSDGKTY (SEQ ID NO: 322)	KSSQSLSDSDGKTYLN (SEQ ID NO: 321)	SQSLSDSDGKTY (SEQ ID NO: 323)	SDSDGKTYLNWL (SEQ ID NO: 324)	KSSQSLSDSDGKTYLN (SEQ ID NO: 321)
	VL CDR2	LVSRLGS (SEQ ID NO: 391)	LVS (SEQ ID NO: 386)	LVSRLGS (SEQ ID NO: 391)	LVS (SEQ ID NO: 386)	RLIYLVSRLG (SEQ ID NO: 392)	LVSRLGS (SEQ ID NO: 391)
	VL CDR3	WQGTHFPQT (SEQ ID NO: 441)	WQGTHFPQT (SEQ ID NO: 441)	WQGTHFPQT (SEQ ID NO: 441)	GTHFPQ (SEQ ID NO: 442)	WQGTHFPQ (SEQ ID NO: 443)	WQGTHFPQT (SEQ ID NO: 441)
VH Sequence: QVQLQQSGAELAKPGASVKMSCKTSGYTFTDYWIHWVKQRPGQGLEWIGYINPNSNYAEYNQKFKVKATLTADKSSSTAYLQLSRLTSEDSAVYYCARFDWNWYFHVWGAGSTVTVSS (SEQ ID NO: 13)						
VL Sequence: DVALTQIPLTLSVTVGQPASISCKSSQSLSDSDGKTYLNWLLQKPGQSPKRLIYLVSRLGSGVPDRFTGSGSGADFTLKISRVEAEDLGVYYCWQGTHFPQTFGGGTKLEIK (SEQ ID NO: 14)						

Table 8: Antibody 25M22 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTSYWVN (SEQ ID NO: 72)	GYTFTSYW (SEQ ID NO: 73)	SYWVN (SEQ ID NO: 74)	GYTFTSY (SEQ ID NO: 75)	TSYWVN (SEQ ID NO: 76)	GYTFTSYWVN (SEQ ID NO: 72)
	VH CDR2	RIYPGDGDTNYNGKFKG (SEQ ID NO: 166)	IYPGDGDT (SEQ ID NO: 167)	RIYPGDGDTNYNGKFKG (SEQ ID NO: 166)	PGDG (SEQ ID NO: 168)	WIGRIYPGDGDTN (SEQ ID NO: 169)	RIYPGDGDTN (SEQ ID NO: 170)
	VH CDR3	AYLLRLRRTGYYAMDY (SEQ ID NO: 249)	ARAYLLRLRRTGYYAMDY (SEQ ID NO: 250)	AYLLRLRRTGYYAMDY (SEQ ID NO: 249)	YLLRLRRTGYYAMD (SEQ ID NO: 251)	ARAYLLRLRRTGYYAMD (SEQ ID NO: 252)	AYLLRLRRTGYYAMDY (SEQ ID NO: 249)
VL CDR Seq.	*VL CDR1*	KSTKSLLNSDEFTYLD (SEQ ID NO: 325)	KSLLNSDEFTY (SEQ ID NO: 326)	KSTKSLLNSDEFTYLD (SEQ ID NO: 325)	TKSLLNSDEFTY (SEQ ID NO: 327)	LNSDEFTYLDWY (SEQ ID NO: 328)	KSTKSLLNSDEFTYLD (SEQ ID NO: 325)
	VL CDR2	LVSNRFS (SEQ ID NO: 393)	LVS (SEQ ID NO: 386)	LVSNRFS (SEQ ID NO: 393)	LVS (SEQ ID NO: 386)	LLIFLVSNRF (SEQ ID NO: 394)	LVSNRFS (SEQ ID NO: 393)
	VL CDR3	FQSNYLPYT (SEQ ID NO: 444)	FQSNYLPYT (SEQ ID NO: 444)	FQSNYLPYT (SEQ ID NO: 444)	SNYLPY (SEQ ID NO: 445)	FQSNYLPY (SEQ ID NO: 446)	FQSNYLPYT (SEQ ID NO: 444)
VH Sequence: QVQLQQSGPDLVKPGASVKISCKASGYTFTSYWVNWMKQRPGKGLEWIGRIYPGDGDTNYNGKFKGKATLTADKSSSTAYMQLSSLTSEDSAVYFCARAYLLRLRRTGYYAMDYWGQGTSVTVSS (SEQ ID NO: 15)						
VL Sequence: DVVLTQTPLSLPVNIGDQASISCKSTKSLLNSDEFTYLDWYLQKPGQSPQLLIFLVSNRFSGVPDRFSGSGSGTDFTLKISRVEAEDLGVYYCFQSNYLPYTFGGGTKLEIK (SEQ ID NO: 16)						

Table 9: Antibody 2B8 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTTYGMS (SEQ ID NO: 77)	GYTFTTYG (SEQ ID NO: 78)	TYGMS (SEQ ID NO: 79)	GYTFTTY (SEQ ID NO: 80)	TTYGMS (SEQ ID NO: 81)	GYTFTTYGMS (SEQ ID NO: 77)
	VH CDR2	WINTYSGVPTFVDDFRG (SEQ ID NO: 171)	INTYSGVP (SEQ ID NO: 143)	WINTYSGVPTFVDDFRG (SEQ ID NO: 171)	TYSG (SEQ ID NO: 144)	WMGWINTYSGVPT (SEQ ID NO: 145)	WINTYSGVPT (SEQ ID NO: 146)
	VH CDR3	RSSYYPYWYFDV (SEQ ID NO: 253)	ARRSSYYPYWYFDV (SEQ ID NO: 254)	RSSYYPYWYFDV (SEQ ID NO: 253)	SSYYPYWYFD (SEQ ID NO: 255)	ARRSSYYPYWYFD (SEQ ID NO: 256)	RSSYYPYWYFDV (SEQ ID NO: 253)
VL CDR Seq.	*VL CDR1*	RPSENIYSYLT (SEQ ID NO: 329)	ENIYSY (SEQ ID NO: 330)	RPSENIYSYLT (SEQ ID NO: 329)	SENIYSY (SEQ ID NO: 331)	YSYLTWF (SEQ ID NO: 332)	RPSENIYSYLT (SEQ ID NO: 329)
	VL CDR2	NAQTLAE (SEQ ID NO: 395)	NAQ (SEQ ID NO: 396)	NAQTLAE (SEQ ID NO: 395)	NAQ (SEQ ID NO: 396)	LLVYNAQTLA (SEQ ID NO: 397)	NAQTLAE (SEQ ID NO: 395)
	VL CDR3	QHYYGYPFT (SEQ ID NO: 447)	QHYYGYPFT (SEQ ID NO: 447)	QHYYGYPFT (SEQ ID NO: 447)	YYGYPF (SEQ ID NO: 448)	QHYYGYPF (SEQ ID NO: 449)	QHYYGYPFT (SEQ ID NO: 447)
VH Sequence: QIQLVQSGPELKKPGETVKISCKASGYTFTTYGMSWVKQAPGKIFKWMGWINTYSGVPTFVDDFRGRFAFSLETSASTAYLQIGNLKNEDTATYFC ARRSSYYPYWYFDVWGTGTTVTVSS (SEQ ID NO: 17)						
VL Sequence: DIQMTQSPASLSASVGETVTITCRPSENIYSYLTWFQQEQGKSPQLLVYNAQTLAEGVPSRFSGSGSGTHFSLKINSLQPEDFGTYYCQHYYGYP FTFGSGTKLEIK (SEQ ID NO: 18)						

Table 10: Antibody 22N5 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTDYSMH (SEQ ID NO: 82)	GYTFTDYS (SEQ ID NO: 83)	DYSMH (SEQ ID NO: 84)	GYTFTDY (SEQ ID NO: 49)	TDYSMH (SEQ ID NO: 85)	GYTFTDYSMH (SEQ ID NO: 82)
	VH CDR2	WINTETGEPTYADDFKG (SEQ ID NO: 172)	INTETGEP (SEQ ID NO: 173)	WINTETGEPTYADDFKG (SEQ ID NO: 172)	TETG (SEQ ID NO: 174)	WMGWINTETGEPT (SEQ ID NO: 175)	WINTETGEPT (SEQ ID NO: 176)
	VH CDR3	GTLNY (SEQ ID NO: 257)	VKGTLNY (SEQ ID NO: 258)	GTLNY (SEQ ID NO: 257)	TLN (SEQ ID NO: 259)	VKGTLN (SEQ ID NO: 260)	GTLNY (SEQ ID NO: 257)
VL CDR Seq.	*VL CDR1*	KASQDIKSYLN (SEQ ID NO: 333)	QDIKSY (SEQ ID NO: 334)	KASQDIKSYLN (SEQ ID NO: 333)	SQDIKSY (SEQ ID NO: 335)	KSYLNWF (SEQ ID NO: 336)	KASQDIKSYLN (SEQ ID NO: 333)
	VL CDR2	RTKRLVD (SEQ ID NO: 398)	RTK (SEQ ID NO: 399)	RTKRLVD (SEQ ID NO: 398)	RTK (SEQ ID NO: 399)	TLIYRTKRLV (SEQ ID NO: 400)	RTKRLVD (SEQ ID NO: 398)
	VL CDR3	LQYVEFPLT (SEQ ID NO: 450)	LQYVEFPLT (SEQ ID NO: 450)	LQYVEFPLT (SEQ ID NO: 450)	YVEFPL (SEQ ID NO: 451)	LQYVEFPL (SEQ ID NO: 452)	LQYVEFPLT (SEQ ID NO: 450)
VH Sequence: QNQLVQSGPELKKPGEIVKISCKTSGYTFTDYSMHWVKKTPGKGFKWMGWINTETGEPTYADDFKGRFAFSLETSANTAHLQITNLKNEDTATYFCVKGTLNYWGQGTTLTVSS (SEQ ID NO: 19)						
VL Sequence: DIKMTQSPSSMYASLGERVTITCKASQDIKSYLNWFQQKPGKSPKTLIYRTKRLVDGVPSRFSGSGSGQDYSLTVSSLEYDDVGIYYCLQYVEFPLTFGDGTKLELK (SEQ ID NO: 20)						

Table 11: Antibody 2I23 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYSFTSYNID (SEQ ID NO: 86)	GYSFTSYN (SEQ ID NO: 87)	SYNID (SEQ ID NO: 88)	GYSFTSY (SEQ ID NO: 89)	TSYNID (SEQ ID NO: 90)	GYSFTSYNID (SEQ ID NO: 86)
	VH CDR2	WIFPGDGST (SEQ ID NO: 177)	IFPGDGST (SEQ ID NO: 178)	WIFPGDGSTKYNEKFKG (SEQ ID NO: 179)	PGDG (SEQ ID NO: 168)	WIGWIFPGDGSTK (SEQ ID NO: 180)	WIFPGDGSTK (SEQ ID NO: 181)
	VH CDR3	SGIYYGSHFVY (SEQ ID NO: 261)	ARSGIYYGSHFVY (SEQ ID NO: 262)	SGIYYGSHFVY (SEQ ID NO: 261)	GIYYGSHFV (SEQ ID NO: 263)	ARSGIYYGSHFV (SEQ ID NO: 264)	SGIYYGSHFVY (SEQ ID NO: 261)
VL CDR Seq.	*VL CDR1*	RSSQSLLDSDGKTYLN (SEQ ID NO: 337)	QSLLDSDGKTY (SEQ ID NO: 338)	RSSQSLLDSDGKTYLN (SEQ ID NO: 337)	SQSLLDSDGKTY (SEQ ID NO: 339)	LDSDGKTYLNWL (SEQ ID NO: 340)	RSSQSLLDSDGKTYLN (SEQ ID NO: 337)
	VL CDR2	LVSKVDS (SEQ ID NO: 401)	LVS (SEQ ID NO: 386)	LVSKVDS (SEQ ID NO: 401)	LVS (SEQ ID NO: 386)	RLIYLVSKVD (SEQ ID NO: 402)	LVSKVDS (SEQ ID NO: 401)
	VL CDR3	WQGTHFPLT (SEQ ID NO: 453)	WQGTHFPLT (SEQ ID NO: 453)	WQGTHFPLT (SEQ ID NO: 453)	GTHFPL (SEQ ID NO: 454)	WQGTHFPL (SEQ ID NO: 455)	WQGTHFPLT (SEQ ID NO: 453)
VH Sequence: QAQLQQSGAELVKPGASVKLSCKASGYSFTSYNIDWVRQRPEQGLEWIGWIFPGDGSTKYNEKFKGQATLTTDKSSSTTYIHLSRLTSEDSAVYFCARSGIYYGSHFVYWGQGTLVTVSA (SEQ ID NO: 21)						
VL Sequence: DVVMTQTPLTLSVTIGQSASISCRSSQSLLDSDGKTYLNWLLQRPGQSPKRLIYLVSKVDSGVPDRFTGSGSGTDFTLKISRVEAEDLGVYFCWQGTHFPLTFGAGTKLELK (SEQ ID NO: 22)						

Table 12: Antibody 6N16 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTSYNIN (SEQ ID NO: 91)	GYTFTSYN (SEQ ID NO: 92)	SYNIN (SEQ ID NO: 93)	GYTFTSY (SEQ ID NO: 75)	TSYNIN (SEQ ID NO: 94)	GYTFTSYNIN (SEQ ID NO: 91)
	VH CDR2	WIFPGDDSIKYNENFRG (SEQ ID NO: 182)	IFPGDDSI (SEQ ID NO: 183)	WIFPGDDSIKYNENFRG (SEQ ID NO: 182)	PGDD (SEQ ID NO: 184)	WIGWIFPGDDSIK (SEQ ID NO: 185)	WIFPGDDSIK (SEQ ID NO: 186)
	VH CDR3	SGIFYGNNFAY (SEQ ID NO: 265)	ARSGIFYGNNFAY (SEQ ID NO: 266)	SGIFYGNNFAY (SEQ ID NO: 265)	GIFYGNNFA (SEQ ID NO: 267)	ARSGIFYGNNFA (SEQ ID NO: 268)	SGIFYGNNFAY (SEQ ID NO: 265)
VL CDR Seq.	*VL CDR1*	KSSQSLLDGDGETYLS (SEQ ID NO: 341)	QSLLDGDGETY (SEQ ID NO: 342)	KSSQSLLDGDGETYLS (SEQ ID NO: 341)	SQSLLDGDGETY (SEQ ID NO: 343)	LDGDGETYLSWL (SEQ ID NO: 344)	KSSQSLLDGDGETYLS (SEQ ID NO: 341)
	VL CDR2	LVSKLDS (SEQ ID NO: 385)	LVS (SEQ ID NO: 386)	LVSKLDS (SEQ ID NO: 385)	LVS (SEQ ID NO: 386)	RLIYLVSKLD (SEQ ID NO: 403)	LVSKLDS (SEQ ID NO: 385)
	VL CDR3	CQSTHFPLT (SEQ ID NO: 456)	CQSTHFPLT (SEQ ID NO: 456)	CQSTHFPLT (SEQ ID NO: 456)	STHFPL (SEQ ID NO: 457)	CQSTHFPL (SEQ ID NO: 458)	CQSTHFPLT (SEQ ID NO: 456)
VH Sequence: QVQLQQSGSELVKPGTSMKLSCKASGYTFTSYNINWVRLRPEQGLEWIGWIFPGDDSIKYNENFRGKATLTTDKSSSTAYMHLSRLTSDDSAVYFCARSGIFYGNNFAYWGQGTLVTVSA (SEQ ID NO: 23)						
VL Sequence: DVVMTQAPLILSVTIGQPASISCKSSQSLLDGDGETYLSWLLQRPGQSPKRLIYLVSKLDSGVPDRFTGSGSGTDFTLKISRVEAEDLGVYYCCQSTHFPLTFGAGTKLELK (SEQ ID NO: 24)						

Table 13: Antibody 1B3 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GFTFTGYNIN (SEQ ID NO: 95)	GFTFTGYN (SEQ ID NO: 96)	GYNIN (SEQ ID NO: 97)	GFTFTGY (SEQ ID NO: 98)	TGYNIN (SEQ ID NO: 99)	GFTFTGYNIN (SEQ ID NO: 95)
	VH CDR2	WIFPGDDNAKYNEKFKG (SEQ ID NO: 187)	IFPGDDNA (SEQ ID NO: 188)	WIFPGDDNAKYNEKFKG (SEQ ID NO: 187)	PGDD (SEQ ID NO: 184)	WIGWIFPGDDNAK (SEQ ID NO: 189)	WIFPGDDNAK (SEQ ID NO: 190)
	VH CDR3	TPVLSNYFDY (SEQ ID NO: 269)	ARTPVLSNYFDY (SEQ ID NO: 270)	TPVLSNYFDY (SEQ ID NO: 269)	PVLSNYFD (SEQ ID NO: 271)	ARTPVLSNYFD (SEQ ID NO: 272)	TPVLSNYFDY (SEQ ID NO: 269)
VL CDR Seq.	*VL CDR1*	KASQDISKYIS (SEQ ID NO: 345)	QDISKY (SEQ ID NO: 346)	KASQDISKYIS (SEQ ID NO: 345)	SQDISKY (SEQ ID NO: 347)	SKYISWY (SEQ ID NO: 348)	KASQDISKYIS (SEQ ID NO: 345)
	VL CDR2	YTSTLQP (SEQ ID NO: 404)	YTS (SEQ ID NO: 405)	YTSTLQP (SEQ ID NO: 404)	YTS (SEQ ID NO: 405)	LLIHYTSTLQ (SEQ ID NO: 406)	YTSTLQP (SEQ ID NO: 404)
	VL CDR3	LQYDNLYT (SEQ ID NO: 459)	LQYDNLYT (SEQ ID NO: 459)	LQYDNLYT (SEQ ID NO: 459)	YDNLY (SEQ ID NO: 460)	LQYDNLY (SEQ ID NO: 461)	LQYDNLYT (SEQ ID NO: 459)
VH Sequence: QVHLQQPGAELVKPGASVKLSCKASGFTFTGYNINWVRLRPEQGLEWIGWIFPGDDNAKYNEKFKGKATLTTDKSSNTAYMQLSRLTSEDSAVYFCARTPVLSNYFDYWGQGTTLTVSS (SEQ ID NO: 25)						
VL Sequence: DIQMTQSPSSLSASLGGKVTITCKASQDISKYISWYQHKPGKSPRLLIHYTSTLQPGIPSRFSGSGSGRDYSFSISNLEPEDIATYYCLQYDNLYTFGGGTKLEIK (SEQ ID NO: 26)						

Table 14: Antibody 19K19 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYAFTSYWMN (SEQ ID NO: 100)	GYAFTSYW (SEQ ID NO: 101)	SYWMN (SEQ ID NO: 102)	GYAFTSY (SEQ ID NO: 103)	TSYWMN (SEQ ID NO: 104)	GYAFTSYWMN (SEQ ID NO: 100)
	VH CDR2	RIYPGDGDTNYNG KFKG (SEQ ID NO: 166)	IYPGDGDT (SEQ ID NO: 167)	RIYPGDGDTNYNG KFKG (SEQ ID NO: 166)	PGDG (SEQ ID NO: 168)	WIGRIYPGDGDTN (SEQ ID NO: 169)	RIYPGDGDTN (SEQ ID NO: 170)
	VH CDR3	AYLLRLRRTGYYA MDY (SEQ ID NO: 249)	ARAYLLRLRRTGY YAMDY (SEQ ID NO: 250)	AYLLRLRRTGYYA MDY (SEQ ID NO: 249)	YLLRLRRTGYYAM D (SEQ ID NO: 251)	ARAYLLRLRRTGY YAMD (SEQ ID NO: 252)	AYLLRLRRTGYYA MDY (SEQ ID NO: 249)
VL CDR Seq.	*VL CDR1*	KSTKSLLNSDEFT YLD (SEQ ID NO: 325)	KSLLNSDEFTY (SEQ ID NO: 326)	KSTKSLLNSDEFT YLD (SEQ ID NO: 325)	TKSLLNSDEFTY (SEQ ID NO: 327)	LNSDEFTYLDWY (SEQ ID NO: 328)	KSTKSLLNSDEFT YLD (SEQ ID NO: 325)
	VL CDR2	LVSNRFS (SEQ ID NO: 393)	LVS (SEQ ID NO: 386)	LVSNRFS (SEQ ID NO: 393)	LVS (SEQ ID NO: 386)	LLIYLVSNRF (SEQ ID NO: 407)	LVSNRFS (SEQ ID NO: 393)
	VL CDR3	FQSNYLPYT (SEQ ID NO: 444)	FQSNYLPYT (SEQ ID NO: 444)	FQSNYLPYT (SEQ ID NO: 444)	SNYLPY (SEQ ID NO: 445)	FQSNYLPY (SEQ ID NO: 446)	FQSNYLPYT (SEQ ID NO: 444)
VH Sequence: QVQLQQSGPDLVKPGASVKISCKASGYAFTSYWMNWVKQRPGKGLEWIGRIYPGDGDTNYNGKFKGKATLTADKSSSTAYMQLSSLTSEDSAV YFCARAYLLRLRRTGYYAMDYWGQGTSVTVSS (SEQ ID NO: 27)						
VL Sequence: DVVLTQTPLSLPVNIGDQASISCKSTKSLLNSDEFTYLDWYLQKPGQSPQLLIYLVSNRFSGVPDRFSGSGSGTDFTLKISRVEAEDLGVYYCFQSN YLPYTFGGGTKLEIK (SEQ ID NO: 28)						

Table 15: Antibody 2B3 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GFTFSDYFMF (SEQ ID NO: 105)	GFTFSDYF (SEQ ID NO: 106)	DYFMF (SEQ ID NO: 107)	GFTFSDY (SEQ ID NO: 108)	SDYFMF (SEQ ID NO: 109)	GFTFSDYFMF (SEQ ID NO: 105)
	VH CDR2	YISNDGDSTYYPDTVQG (SEQ ID NO: 191)	ISNDGDST (SEQ ID NO: 192)	YISNDGDSTYYPDTVQG (SEQ ID NO: 191)	NDGD (SEQ ID NO: 193)	WVAYISNDGDSTY (SEQ ID NO: 194)	YISNDGDSTY (SEQ ID NO: 195)
	VH CDR3	QGAQATLDY (SEQ ID NO: 273)	TRQGAQATLDY (SEQ ID NO: 274)	QGAQATLDY (SEQ ID NO: 273)	GAQATLD (SEQ ID NO: 275)	TRQGAQATLD (SEQ ID NO: 276)	QGAQATLDY (SEQ ID NO: 273)
VL CDR Seq.	*VL CDR1*	SASSSVFYMH (SEQ ID NO: 349)	SSVFY (SEQ ID NO: 350)	SASSSVFYMH (SEQ ID NO: 349)	SSSVFY (SEQ ID NO: 351)	FYMHWY (SEQ ID NO: 352)	SASSSVFYMH (SEQ ID NO: 349)
	VL CDR2	STSNLAS (SEQ ID NO: 408)	STS (SEQ ID NO: 389)	STSNLAS (SEQ ID NO: 408)	STS (SEQ ID NO: 389)	LLIYSTSNLA (SEQ ID NO: 409)	STSNLAS (SEQ ID NO: 408)
	VL CDR3	HQWSST (SEQ ID NO: 462)	HQWSST (SEQ ID NO: 462)	HQWSST (SEQ ID NO: 462)	WSS (SEQ ID NO: 463)	HQWSS (SEQ ID NO: 464)	HQWSST (SEQ ID NO: 462)
VH Sequence: EVKLVESGGGLVQPGGSLKLSCAASGFTFSDYFMFWVRQTPEKRLEWVAYISNDGDSTYYPDTVQGRFTISRDNAKNTLYLQMSRLRSEDTAMYYCTRQGAQATLDYWGQGTTLTVSS (SEQ ID NO: 29)						
VL Sequence: QIVLTQSPAIMSASLGEEITLTCSASSSVFYMHWYQQKSGTSPKLLIYSTSNLASGIPSRFSGSGSGTFYSLTISSVEAEDAADYYCHQWSSTFGGGTKLEIK (SEQ ID NO: 30)						

Table 16: Antibody 8C10 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFANYGLT (SEQ ID NO: 110)	GYTFANYG (SEQ ID NO: 111)	NYGLT (SEQ ID NO: 112)	GYTFANY (SEQ ID NO: 113)	ANYGLT (SEQ ID NO: 114)	GYTFANYGLT (SEQ ID NO: 110)
	VH CDR2	EIYPGSGHTHYNEDFKG (SEQ ID NO: 196)	IYPGSGHT (SEQ ID NO: 197)	EIYPGSGHTHYNEDFKG (SEQ ID NO: 196)	PGSG (SEQ ID NO: 198)	WIGEIYPGSGHTH (SEQ ID NO: 199)	EIYPGSGHTH (SEQ ID NO: 200)
	VH CDR3	RIQLLLPVGGFVY (SEQ ID NO: 277)	ARRIQLLLPVGGFVY (SEQ ID NO: 278)	RIQLLLPVGGFVY (SEQ ID NO: 277)	IQLLLPVGGFV (SEQ ID NO: 279)	ARRIQLLLPVGGFV (SEQ ID NO: 280)	RIQLLLPVGGFVY (SEQ ID NO: 277)
VL CDR Seq.	*VL CDR1*	RASQSISNNLH (SEQ ID NO: 353)	QSISNN (SEQ ID NO: 354)	RASQSISNNLH (SEQ ID NO: 353)	SQSISNN (SEQ ID NO: 355)	SNNLHWY (SEQ ID NO: 356)	RASQSISNNLH (SEQ ID NO: 353)
	VL CDR2	YASQSIS (SEQ ID NO: 410)	YAS (SEQ ID NO: 411)	YASQSIS (SEQ ID NO: 410)	YAS (SEQ ID NO: 411)	LLIKYASQSI (SEQ ID NO: 412)	YASQSIS (SEQ ID NO: 410)
	VL CDR3	QQSNSWPHT (SEQ ID NO: 465)	QQSNSWPHT (SEQ ID NO: 465)	QQSNSWPHT (SEQ ID NO: 465)	SNSWPH (SEQ ID NO: 466)	QQSNSWPH (SEQ ID NO: 467)	QQSNSWPHT (SEQ ID NO: 465)
VH Sequence: QVQLQQSGVELARPGAAVKLSCKASGYTFANYGLTWVKQRTGQGLEWIGEIYPGSGHTHYNEDFKGKATLTADRSSSTAYMELRSLTSEDSAVY FCARRIQLLLPVGGFVYWGQGTLVTVSA (SEQ ID NO: 31)						
VL Sequence: DFVLTQSPATLSVTPGDSVSLSCRASQSISNNLHWYQQKSHESPRLLIKYASQSISGIPSRFSGSGSGTDFTLSINSVETEDFGVYFCQQSNSWPHT FGGGTKLEIK (SEQ ID NO: 32)						

Table 17: Antibody 2A9 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GFTFSTYAMS (SEQ ID NO: 115)	GFTFSTYA (SEQ ID NO: 116)	TYAMS (SEQ ID NO: 117)	GFTFSTY (SEQ ID NO: 118)	STYAMS (SEQ ID NO: 119)	GFTFSTYAMS (SEQ ID NO: 115)
	VH CDR2	SITSGGTTYYTDSVKG (SEQ ID NO: 201)	ITSGGTT (SEQ ID NO: 202)	SITSGGTTYYTDSVKG (SEQ ID NO: 201)	SGG (SEQ ID NO: 134)	WVASITSGGTTY (SEQ ID NO: 203)	SITSGGTTY (SEQ ID NO: 204)
	VH CDR3	DGNFYYYGMDY (SEQ ID NO: 281)	ARDGNFYYYGMDY (SEQ ID NO: 282)	DGNFYYYGMDY (SEQ ID NO: 281)	GNFYYYGMD (SEQ ID NO: 283)	ARDGNFYYYGMD (SEQ ID NO: 284)	DGNFYYYGMDY (SEQ ID NO: 281)
VL CDR Seq.	*VL CDR1*	KASQNVGTAVA (SEQ ID NO: 357)	QNVGTA (SEQ ID NO: 358)	KASQNVGTAVA (SEQ ID NO: 357)	SQNVGTA (SEQ ID NO: 359)	GTAVAWY (SEQ ID NO: 360)	KASQNVGTAVA (SEQ ID NO: 357)
	VL CDR2	SASNRFT (SEQ ID NO: 413)	SAS (SEQ ID NO: 414)	SASNRFT (SEQ ID NO: 413)	SAS (SEQ ID NO: 414)	ILIYSASNRF (SEQ ID NO: 415)	SASNRFT (SEQ ID NO: 413)
	VL CDR3	QQYSSYFT (SEQ ID NO: 468)	QQYSSYFT (SEQ ID NO: 468)	QQYSSYFT (SEQ ID NO: 468)	YSSYF (SEQ ID NO: 469)	QQYSSYF (SEQ ID NO: 470)	QQYSSYFT (SEQ ID NO: 468)
VH Sequence: EVKLVESGGGLVKPGGSLKLSCAASGFTFSTYAMSWVRQTPEKRLEWVASITSGGTTYYTDSVKGRFTISRDNARNILYLQMSSLRSEDTAMYYC ARDGNFYYYGMDYWGQGTSVTVSS (SEQ ID NO: 33)						
VL Sequence: DIVMTQSQKFMSTSVGDRVSITCKASQNVGTAVAWYQQKPGQSPKILIYSASNRFTGVPDRFTGSGSGTDFTLTISNMQSEDLADYFCQQYSSYFT FGGGTKLELK (SEQ ID NO: 34)						

Table 18: Antibody 24G2 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTTYWMH (SEQ ID NO: 120)	GYTFTTYW (SEQ ID NO: 121)	TYWMH (SEQ ID NO: 122)	GYTFTTY (SEQ ID NO: 80)	TTYWMH (SEQ ID NO: 123)	GYTFTTYWMH (SEQ ID NO: 120)
	VH CDR2	MIHPNSGSSNYNEKFKN (SEQ ID NO: 205)	IHPNSGSS (SEQ ID NO: 206)	MIHPNSGSSNYNEKFKN (SEQ ID NO: 205)	PNSG (SEQ ID NO: 207)	WIGMIHPNSGSSN (SEQ ID NO: 208)	MIHPNSGSSN (SEQ ID NO: 209)
	VH CDR3	SDYGFIPYFDY (SEQ ID NO: 285)	ARSDYGFIPYFDY (SEQ ID NO: 286)	SDYGFIPYFDY (SEQ ID NO: 285)	DYGFIPYFD (SEQ ID NO: 287)	ARSDYGFIPYFD (SEQ ID NO: 288)	SDYGFIPYFDY (SEQ ID NO: 285)
VL CDR Seq.	*VL CDR1*	RASQSIGTSIH (SEQ ID NO: 361)	QSIGTS (SEQ ID NO: 362)	RASQSIGTSIH (SEQ ID NO: 361)	SQSIGTS (SEQ ID NO: 363)	GTSIHWY (SEQ ID NO: 364)	RASQSIGTSIH (SEQ ID NO: 361)
	VL CDR2	YASESIS (SEQ ID NO: 416)	YAS (SEQ ID NO: 411)	YASESIS (SEQ ID NO: 416)	YAS (SEQ ID NO: 411)	LLIKYASESI (SEQ ID NO: 417)	YASESIS (SEQ ID NO: 416)
	VL CDR3	QQSNSWPTFT (SEQ ID NO: 471)	QQSNSWPTFT (SEQ ID NO: 471)	QQSNSWPTFT (SEQ ID NO: 471)	SNSWPTF (SEQ ID NO: 472)	QQSNSWPTF (SEQ ID NO: 473)	QQSNSWPTFT (SEQ ID NO: 471)
VH Sequence: QVQLQQSGAELLKPGASVKLSCKASGYTFTTYWMHWVKQRPGQGLEWIGMIHPNSGSSNYNEKFKNKATLTVDKSSSTAYMQLSSLTSEDSAVY FCARSDYGFIPYFDYWGQGTTLTVSS (SEQ ID NO: 35)						
VL Sequence: DILLTQSPAILSVSPGERVSFSCRASQSIGTSIHWYQQRTNGSPRLLIKYASESISGIPSRFSGSGSGTDFTLIINSVESEDIADYYCQQSNSWPTFTF GAGTKLELK (SEQ ID NO: 36)							

Table 19: Antibody 6G9 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTSYWMQ (SEQ ID NO: 124)	GYTFTSYW (SEQ ID NO: 73)	SYWMQ (SEQ ID NO: 125)	GYTFTSY (SEQ ID NO: 75)	TSYWMQ (SEQ ID NO: 126)	GYTFTSYWMQ (SEQ ID NO: 124)
	VH CDR2	EIDPSDSYTNYNQKFKG (SEQ ID NO: 210)	IDPSDSYT (SEQ ID NO: 211)	EIDPSDSYTNYNQKFKG (SEQ ID NO: 210)	PSDS (SEQ ID NO: 212)	WIGEIDPSDSYTN (SEQ ID NO: 213)	EIDPSDSYTN (SEQ ID NO: 214)
	VH CDR3	PLDRSAYYFDY (SEQ ID NO: 289)	ARPLDRSAYYFDY (SEQ ID NO: 290)	PLDRSAYYFDY (SEQ ID NO: 289)	LDRSAYYFD (SEQ ID NO: 291)	ARPLDRSAYYFD (SEQ ID NO: 292)	PLDRSAYYFDY (SEQ ID NO: 289)
VL CDR Seq.	*VL CDR1*	RASESVDFSGNSFMH (SEQ ID NO: 365)	ESVDFSGNSF (SEQ ID NO: 366)	RASESVDFSGNSFMH (SEQ ID NO: 365)	SESVDFSGNSF (SEQ ID NO: 367)	DFSGNSFMHWY (SEQ ID NO: 368)	RASESVDFSGNSFMH (SEQ ID NO: 365)
	VL CDR2	RASNLDS (SEQ ID NO: 418)	RAS (SEQ ID NO: 419)	RASNLDS (SEQ ID NO: 418)	RAS (SEQ ID NO: 419)	LLIYRASNLD (SEQ ID NO: 420)	RASNLDS (SEQ ID NO: 418)
	VL CDR3	QQSNEDPYT (SEQ ID NO: 474)	QQSNEDPYT (SEQ ID NO: 474)	QQSNEDPYT (SEQ ID NO: 474)	SNEDPY (SEQ ID NO: 475)	QQSNEDPY (SEQ ID NO: 476)	QQSNEDPYT (SEQ ID NO: 474)
VH Sequence: QVQLHQPGAELVKPGASVKLSCKTSGYTFTSYWMQWVKQRPGQGLEWIGEIDPSDSYTNYNQKFKGKATLTVDTSSTTAYMQLSSLTSEDSAVYYCARPLDRSAYYFDYWGQGTTLTVSS (SEQ ID NO: 37)						
VL Sequence: DIVLTQSPASLAVSLGQRATISCRASESVDFSGNSFMHWYQQKPGQPPKLLIYRASNLDSGIPARFSGVGSRTDFTLTINPVEADDVATYYCQQSNEDPYTFGGGTKLEIE (SEQ ID NO: 38)						

Table 20: Antibody 2B11 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYSITSGYYWN (SEQ ID NO: 127)	GYSITSGYY (SEQ ID NO: 128)	SGYYWN (SEQ ID NO: 129)	GYSITSGY (SEQ ID NO: 130)	TSGYYWN (SEQ ID NO: 131)	GYSITSGYYWN (SEQ ID NO: 127)
	VH CDR2	HIANDGSNYYNPFLKH (SEQ ID NO: 215)	IANDGSN (SEQ ID NO: 216)	HIANDGSNYYNPFLKH (SEQ ID NO: 215)	NDG (SEQ ID NO: 217)	WMGHIANDGSNY (SEQ ID NO: 218)	HIANDGSNY (SEQ ID NO: 219)
	VH CDR3	GGSYFDYVDY (SEQ ID NO: 293)	ARGGSYFDYVDY (SEQ ID NO: 294)	GGSYFDYVDY (SEQ ID NO: 293)	GSYFDYVD (SEQ ID NO: 295)	ARGGSYFDYVD (SEQ ID NO: 296)	GGSYFDYVDY (SEQ ID NO: 293)
VL CDR Seq.	*VL CDR1*	RASQDISNYLN (SEQ ID NO: 369)	QDISNY (SEQ ID NO: 370)	RASQDISNYLN (SEQ ID NO: 369)	SQDISNY (SEQ ID NO: 371)	SNYLNWY (SEQ ID NO: 372)	RASQDISNYLN (SEQ ID NO: 369)
	VL CDR2	YTSRLHS (SEQ ID NO: 421)	YTS (SEQ ID NO: 405)	YTSRLHS (SEQ ID NO: 421)	YTS (SEQ ID NO: 405)	LLIYYTSRLH (SEQ ID NO: 422)	YTSRLHS (SEQ ID NO: 421)
	VL CDR3	QQGNTLPFT (SEQ ID NO: 477)	QQGNTLPFT (SEQ ID NO: 477)	QQGNTLPFT (SEQ ID NO: 477)	GNTLPF (SEQ ID NO: 478)	QQGNTLPF (SEQ ID NO: 479)	QQGNTLPFT (SEQ ID NO: 477)
VH Sequence: DVQLQESGPGLVKPSQSLSLTCSVTGYSITSGYYWNWIRQFPGNKLEWMGHIANDGSNYYNPFLKHRVSITRDTSKNQFFLKLNSVTIQDTATYYC ARGGSYFDYVDYWGQGTTLTVSS (SEQ ID NO: 39)						
VL Sequence: DIQMTQTTSSLSASLGDRVTINCRASQDISNYLNWYQQKPDGTVKLLIYYTSRLHSGVPSRFSGSGSGTDYSLTITNLEQEDIATYFCQQGNTLPFTF GSGTKLEIK (SEQ ID NO: 40)						

Table 21: Antibody 1A3 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GFTFTDYYMN (SEQ ID NO: 488)	GFTFTDYY (SEQ ID NO: 1795)	DYYMN (SEQ ID NO: 490)	GFTFTDY (SEQ ID NO: 1796)	TDYYMN (SEQ ID NO: 491)	GFTFTDYYMN (SEQ ID NO: 488)
	VH CDR2	DIIPNNGVTSYNQ KFKG (SEQ ID NO: 497)	IIPNNGVT (SEQ ID NO: 498)	DIIPNNGVTSYNQ KFKG (SEQ ID NO: 497)	PNNG (SEQ ID NO: 499)	WIGDIIPNNGVTS (SEQ ID NO: 500)	DIIPNNGVTS (SEQ ID NO: 501)
	VH CDR3	EWLLRGMDY (SEQ ID NO: 515)	AREWLLRGMDY (SEQ ID NO: 516)	EWLLRGMDY (SEQ ID NO: 515)	WLLRGMD (SEQ ID NO: 517)	AREWLLRGMD (SEQ ID NO: 518)	EWLLRGMDY (SEQ ID NO: 515)
VL CDR Seq.	*VL CDR1*	RSSKSLLHSNGIT YLY (SEQ ID NO: 531)	KSLLHSNGITY (SEQ ID NO: 532)	RSSKSLLHSNGIT YLY (SEQ ID NO: 531)	SKSLLHSNGITY (SEQ ID NO: 533)	LHSNGITYLYWY (SEQ ID NO: 534)	RSSKSLLHSNGIT YLY (SEQ ID NO: 531)
	VL CDR2	QMSNLAS (SEQ ID NO: 547)	QMS (SEQ ID NO: 548)	QMSNLAS (SEQ ID NO: 547)	QMS (SEQ ID NO: 548)	LLIYQMSNLA (SEQ ID NO: 549)	QMSNLAS (SEQ ID NO: 547)
	VL CDR3	AQHLELTWT (SEQ ID NO: 558)	AQHLELTWT (SEQ ID NO: 558)	AQHLELTWT (SEQ ID NO: 558)	HLELTW (SEQ ID NO: 559)	AQHLELTW (SEQ ID NO: 560)	AQHLELTWT (SEQ ID NO: 558)
VH Sequence: EVQLQQSGPELVKPGASVKISCKASGFTFTDYYMNWVKQSHGKSLEWIGDIIPNNGVTSYNQKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYY CAREWLLRGMDYWGQGTSVTVSS (SEQ ID NO: 480)						
VL Sequence: DIVMTQAAFSNPVTLGTSASISCRSSKSLLHSNGITYLYWYLQKPGQSPQLLIYQMSNLASGVPDRFSSSGSGTDFTLRISRVEAEDVGVYYCAQH LELTWTFGGGTKLEIK (SEQ ID NO: 481)						

Table 22: Antibody P1B6 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTDYYMN (SEQ ID NO: 489)	GYTFTDYY (SEQ ID NO: 57)	DYYMN (SEQ ID NO: 490)	GYTFTDY (SEQ ID NO: 49)	TDYYMN (SEQ ID NO: 491)	GYTFTDYYMN (SEQ ID NO: 489)
	VH CDR2	DINPNNGGPIYN QKFKG (SEQ ID NO: 502)	INPNNGGP (SEQ ID NO: 503)	DINPNNGGPIYN QKFKG (SEQ ID NO: 502)	PNNG (SEQ ID NO: 499)	WIGDINPNNGGPI (SEQ ID NO: 504)	DINPNNGGPI (SEQ ID NO: 505)
	VH CDR3	SDSAWFTY (SEQ ID NO: 519)	ARSDSAWFTY (SEQ ID NO: 520)	SDSAWFTY (SEQ ID NO: 519)	DSAWFT (SEQ ID NO: 521)	ARSDSAWFT (SEQ ID NO: 522)	SDSAWFTY (SEQ ID NO: 519)
VL CDR Seq.	*VL CDR1*	SASSSVSYMY (SEQ ID NO: 535)	SSVSY (SEQ ID NO: 536)	SASSSVSYMY (SEQ ID NO: 535)	SSSVSY (SEQ ID NO: 537)	SYMYWY (SEQ ID NO: 538)	SASSSVSYMY (SEQ ID NO: 535)
	VL CDR2	DTSNLAS (SEQ ID NO: 550)	DTS (SEQ ID NO: 551)	DTSNLAS (SEQ ID NO: 550)	DTS (SEQ ID NO: 551)	LLIYDTSNLA (SEQ ID NO: 552)	DTSNLAS (SEQ ID NO: 550)
	VL CDR3	QQWNSYPPT (SEQ ID NO: 561)	QQWNSYPPT (SEQ ID NO: 561)	QQWNSYPPT (SEQ ID NO: 561)	WNSYPP (SEQ ID NO: 562)	QQWNSYPP (SEQ ID NO: 563)	QQWNSYPPT (SEQ ID NO: 561)
VH Sequence: EVQLQQSGPELVKPGASVKMSCKASGYTFTDYYMNWVKQTHGKSLEWIGDINPNNGGPIYNQKFKGKATLTVDKSSSTAYMELRSLTSEDSAVY YCARSDSAWFTYWGQGTLVTVSA (SEQ ID NO: 482)						
VL Sequence: QIVLTQSPAIMSASPGEKVTMTCSASSSVSYMYWYQQKPGSSPRLLIYDTSNLASGVPVRFSGSGSGTFYSITISRMEAEDAATYYCQQWNSYPP TFGGGTKLEIK (SEQ ID NO: 483)						

Table 23: Antibody P1H8 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GYTFTDYYMN (SEQ ID NO: 489)	GYTFTDYY (SEQ ID NO: 57)	DYYMN (SEQ ID NO: 490)	GYTFTDY (SEQ ID NO: 49)	TDYYMN (SEQ ID NO: 491)	GYTFTDYYMN (SEQ ID NO: 489)
	VH CDR2	DINPNNGGTTYN QKFKG (SEQ ID NO: 506)	INPNNGGT (SEQ ID NO: 507)	DINPNNGGTTYN QKFKG (SEQ ID NO: 506)	PNNG (SEQ ID NO: 499)	WIGDINPNNGGT T (SEQ ID NO: 508)	DINPNNGGTT (SEQ ID NO: 509)
	VH CDR3	QGPWYFDV (SEQ ID NO: 523)	ARQGPWYFDV (SEQ ID NO: 524)	QGPWYFDV (SEQ ID NO: 523)	GPWYFD (SEQ ID NO: 525)	ARQGPWYFD (SEQ ID NO: 526)	QGPWYFDV (SEQ ID NO: 523)
VL CDR Seq.	*VL CDR1*	RSSQTIVHSNGY TYLE (SEQ ID NO: 539)	QTIVHSNGYTY (SEQ ID NO: 540)	RSSQTIVHSNGY TYLE (SEQ ID NO: 539)	SQTIVHSNGYTY (SEQ ID NO: 541)	VHSNGYTYLEWY (SEQ ID NO: 542)	RSSQTIVHSNGY TYLE (SEQ ID NO: 539)
	VL CDR2	KVSNRFS (SEQ ID NO: 553)	KVS (SEQ ID NO: 554)	KVSNRFS (SEQ ID NO: 553)	KVS (SEQ ID NO: 554)	LLIYKVSNRF (SEQ ID NO: 555)	KVSNRFS (SEQ ID NO: 553)
	VL CDR3	FQGSHVPWT (SEQ ID NO: 564)	FQGSHVPWT (SEQ ID NO: 564)	FQGSHVPWT (SEQ ID NO: 564)	QGSHVPW (SEQ ID NO: 565)	FQGSHVPW (SEQ ID NO: 566)	FQGSHVPWT (SEQ ID NO: 564)
VH Sequence: EVQLQQSGPELVKPGASVKISCKASGYTFTDYYMNWVKQSHGKSLEWIGDINPNNGGTTYNQKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYY CARQGPWYFDVWGTGTTVTVSS (SEQ ID NO: 484)						
VL Sequence: DVLMTQTPLSLPVSLGDQASISCRSSQTIVHSNGYTYLEWYLQKPGQSPKLLIYKVSNRFSGVPDRFSGSGSGTDFTLKISRVEAEDLGVYYCFQG SHVPWTFGGGTKLEIK (SEQ ID NO: 485)						

Table 24: Antibody P8G4 CDR Sequences

		Exemplary	IMGT	Kabat	Chothia	Contact	AbM
VH CDR Seq.	*VH CDR1*	GFSLTSYGVH (SEQ ID NO: 492)	GFSLTSYG (SEQ ID NO: 493)	SYGVH (SEQ ID NO: 494)	GFSLTSY (SEQ ID NO: 495)	TSYGVH (SEQ ID NO: 496)	GFSLTSYGVH (SEQ ID NO: 492)
	VH CDR2	VLWSGGSTDYN AAFIS (SEQ ID NO: 510)	LWSGGST (SEQ ID NO: 511)	VLWSGGSTDYN AAFIS (SEQ ID NO: 510)	GGS (SEQ ID NO: 512)	WLGVLWSGGST D (SEQ ID NO: 513)	VLWSGGSTD (SEQ ID NO: 514)
	VH CDR3	NFGDY (SEQ ID NO: 527)	ARNFGDY (SEQ ID NO: 528)	NFGDY (SEQ ID NO: 527)	FGD (SEQ ID NO: 529)	ARNFGD (SEQ ID NO: 530)	NFGDY (SEQ ID NO: 527)
VL CDR Seq.	*VL CDR1*	SASSRVSYMH (SEQ ID NO: 543)	SRVSY (SEQ ID NO: 544)	SASSRVSYMH (SEQ ID NO: 543)	SSRVSY (SEQ ID NO: 545)	SYMHWY (SEQ ID NO: 546)	SASSRVSYMH (SEQ ID NO: 543)
	VL CDR2	DTSKLAS (SEQ ID NO: 556)	DTS (SEQ ID NO: 551)	DTSKLAS (SEQ ID NO: 556)	DTS (SEQ ID NO: 551)	RWIYDTSKLA (SEQ ID NO: 557)	DTSKLAS (SEQ ID NO: 556)
	VL CDR3	QQWNNNPPT (SEQ ID NO: 567)	QQWNNNPPT (SEQ ID NO: 567)	QQWNNNPPT (SEQ ID NO: 567)	WNNNPP (SEQ ID NO: 568)	QQWNNNPP (SEQ ID NO: 569)	QQWNNNPPT (SEQ ID NO: 567)
VH Sequence: QVQLKQSGPGLVQPSQSLSITCTVSGFSLTSYGVHWVRQSPGKGLDWLGVLWSGGSTDYNAAFISRLSISKDNSKSQVFFKMNSLQADDTAIYYC ARNFGDYWGQGTSVTVSS (SEQ ID NO: 486)						
VL Sequence: QIVLTQSPAIMSASPGEKVTMTCSASSRVSYMHWYQQKSGTSPKRWIYDTSKLASGVPARFSGSGSGTSYSLTISSMEAEDAATYYCQQWNNNP PTFGAGTTLELK (SEQ ID NO: 487)						

[00287] In some embodiments, the antibodies provided herein comprise a VH region or VH domain In other embodiments, the antibodies provided herein comprise a VL region or VL chain. In some embodiments, the antibodies provided herein have a combination of (i) a VH domain or VH region; and/or (ii) a VL domain or VL region.

[00288] In some embodiments, an antibody provided herein comprises or consists of six CDRs, for example, VH CDR1, VH CDR2, VH CDR3, VL CDR1, VL CDR2, and/or VL CDR3 identified in Tables 1-24. In some embodiments, an antibody provided herein can comprise less than six CDRs. In some embodiments, the antibody comprises or consists of one, two, three, four, or five CDRs selected from the group consisting of VH CDR1, VH CDR2, VH CDR3, VL CDR1, VL CDR2, and/or VL CDR3 identified in Tables 1-24. In some embodiments, the antibody comprises or consists of one, two, three, four, or five CDRs selected from the group consisting of VH CDR1, VH CDR2, VH CDR3, VL CDR1, VL CDR2, and/or VL CDR3 of the murine monoclonal antibody selected from the group consisting of: (a) the antibody designated 1C1; (b) the antibody designated 3P10; (c) the antibody designated 12A3; (d) the antibody designated 5F12; (e) the antibody designated 5A20; (f) the antibody designated 8D8; (g) the antibody designated 17J16; (h) t the antibody designated 25M22; (i) the antibody designated 2B8; (j) the antibody designated 22N5; (k) the antibody designated 2I23; (l) the antibody designated 6N16; (m) the antibody designated 1B3; (n) the antibody designated 19K19; (o) the antibody designated 2B3; (p) the antibody designated 8C10; (q) the antibody designated 2A9; (r) the antibody designated 24G2; (s) the antibody designated 6G9; (t) the antibody designated 2B11; (u) the antibody designated 1A3; (v) the antibody designated P1B6; (w) the antibody designated P1H8; or (x) the antibody designated P8G4 described herein. Accordingly, in some embodiments, the antibody comprises or consists of one, two, three four or five CDRs of anyone of the VH CDR1, VH CDR2, VH CDR3, VL CDR1, VL CDR2, and/or VL CDR3 identified in Tables 1-24.

[00289] In some embodiments, the antibodies provided herein comprise or consist of one or more (e.g., one, two or three) VH CDRs listed in Tables 1-24. In other embodiments, the antibodies provided herein comprise one or more (e.g., one, two or three) VL CDRs listed in Tables 1-24. In yet other embodiments, the antibodies provided herein comprise one or more (e.g., one, two or three) VH CDRs listed in

Tables 1-24 and one or more VL CDRs listed in Tables 1-24. Accordingly, in certain embodiments, the antibodies comprise a VH CDR1 having the amino acid sequence of any one of SEQ ID NOS: 57, 49, 57, 49, 221-296, 515-530, 488-493, 1795, 1796, 488-493, 1795, 1796. In another embodiment, the antibodies comprise a VH CDR2 having the amino acid sequence of any one of SEQ ID NOS: 132-220, 497-514. In another embodiment, the antibodies comprise a VH CDR3 having the amino acid sequence of any one of SEQ ID NOS: 57, 49, 57, 49, 221-296, 515-530, 488-493, 1795, 1796, 488-493, 1795, 1796. In certain embodiments, the antibodies comprise a VH CDR1 and/or a VH CDR2 and/or a VH CDR3 independently selected from a VH CDR1, VH CDR2, VH CDR3 as depicted in any one of the amino acid sequences depicted in Table 1-24. In certain embodiments, the antibodies comprise a VL CDR1 having the amino acid sequence of any one of SEQ ID NOS: 297-372, 531-546. In another embodiment, the antibodies comprise a VL CDR2 having the amino acid sequence of any one of SEQ ID NOS: 373-422. In another embodiment, the antibodies comprise a VL CDR3 having the amino acid sequence of any one of SEQ ID NOS: 423-479, 558-569. In certain embodiments, the antibodies comprise a VL CDR1 and/or a VL CDR2 and/or a VL CDR3 independently selected from a VL CDR1, VL CDR2, VL CDR3 as depicted in any one of the amino acid sequences depicted in Tables 1-24.

[00290] Also provided herein are antibodies comprising one or more (e.g., one, two or three) VH CDRs and one or more (e.g., one, two or three) VL CDRs listed in Tables 1-24. In particular, provided herein is an antibody comprising: a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR1 (SEQ ID NOS: 297-372, 531-546); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR2 (SEQ ID NOS: 132-220, 497-514) and a VL CDR1 (SEQ ID NOS: 297-372, 531-546); a VH CDR2 (SEQ ID NOS: 132-220, 497-514) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR2 (SEQ ID NOS: 132-220, 497-514) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR1 (SEQ ID NOS: 297-372, 531-546); a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR3

(SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514) and a VL CDR1 (SEQ ID NOS: 297-372, 531-546); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569);a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR1 (SEQ ID NOS: 297-372, 531-546), a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR2 (SEQ ID NOS: 373-422) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VL CDR2 (SEQ ID NOS: 373-422) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR2 (SEQ ID NOS: 373-422) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR1 (SEQ ID NOS: 297-372,

531-546); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VL CDR2 (SEQ ID NOS: 373-422) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR2 (SEQ ID NOS: 373-422) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR2 (SEQ ID NOS: 373-422); a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR2 (SEQ ID NOS: 373-422) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL

CDR2 (SEQ ID NOS: 373-422); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR2 (SEQ ID NOS: 373-422) and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VL CDR1 (SEQ ID NOS: 297-372, 531-546), a VL CDR2 (SEQ ID NOS: 373-422), and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR1 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546), a VL CDR2 (SEQ ID NOS: 373-422), and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); a VH CDR2 (SEQ ID NOS: 132-220, 497-514), a VH CDR3 (SEQ ID NOS: 57, 49, 221-296, 515-530, 488-493, 1795, 1796), a VL CDR1 (SEQ ID NOS: 297-372, 531-546), a VL CDR2 (SEQ ID NOS: 373-422), and a VL CDR3 (SEQ ID NOS: 423-479, 558-569); or any combination thereof of the VH CDRs (SEQ ID NOS: 41-296) and VL CDRs (SEQ ID NOS: 297-477) listed in Tables 1-24.

[00291] In certain embodiments, an antibody or fragment thereof described herein comprises a humanized framework region (FR) sequence. In certain embodiments, an antibody or fragment thereof described herein comprises a VH region comprising a VH FR1, a VH FR2, a VH FR3 and a VH FR4 amino acid sequence depicted in Table 25; and/or (b) a VL region comprising a VL FR1, a VL FR2, a VL FR3 and a VL FR4 amino acid sequence depicted in Table 25.

Table 25: Exemplary Framework Sequences for Humanized Anti-GFRAL Antibodies

VH	Clones Humanized	SEQ ID NO:
VH Framework 1 (FR1)		
QVQLQESGPGLVKPSETLSLTCTVS	1C1	570
Q**M**QLQESGPGLVKPSETLSLTCTVS	1C1	571
QVQLVQSGAEVKKPGSSVKVSCKAS	3P10, 5F12, 25M22, 17J16	572
Q**I**QLVQSGAEVKKPGSSVKVSCKAS	3P10	573
QVQLVQSGAEVKKPGATVKISCKVS	3P10	574
Q**I**QLVQSGAEVKKPGATVKISCKVS	3P10	575
QVQLVQSGAEV**V**KPGSSVKVSCKAS	5F12	576
QVQLVQSGAEVKKPGASVKVSCKAS	5F12	577
EVQLVQSGAEVKKPGESLKISCKGS	25M22	578
VH Framework 2 (FR2)		
WIRQPPGKGLEWIG	1C1	579
WIRQPPGKGLEW**L**G	1C1	580
WVRQAPGQGLEWMG	3P10, 5F12, 25M22, 17J16	581
WVRQAPG**K**GLEWMG	3P10	582
WVRQAPGQ**A**LEWMG	3P10	583
WVRQAPGQGL**K**WMG	3P10	584
WVRQAPG**KA**LEWMG	3P10	585
WVRQAPG**K**GL**K**WMG	3P10	586
WVRQAPGQ**A**L**K**WMG	3P10	587
WVRQAPG**KA**L**K**WMG	3P10	588
WV**K**QAPGQGLEWIG	5F12, 17J16	589
WVRQAPGQGLEW**I**G	5F12, 25M22, 17J16	590
WVRQAPGQGLEWI**A**	5F12	591
WV**K**QAPGQGLEW**I**G	5F12, 17J16	592
WV**K**QAPGQGLEWI**A**	5F12	593
WVRQAPGQGLEW**IA**	5F12	594
WV**K**QAPGQGLEW**IA**	5F12	595

WMQQAPGKGLEWIG	3P10	596
WVRQAPGQRLEWMG	5F12	597
WVRQAPGQRLEW**I**G	5F12	598
WVRQAPGQRLEWM**A**	5F12	599
WVRQAPGQRLEW**IA**	5F12	600
WVRQMPGKGLEWMG	25M22	601
WVRQMPGKGLEW**I**G	25M22	602
VH Framework 3 (FR3)		
RVTISVDTSKNQFSLKLSSVTAADTAVYYCAR	1C1	603
R**L**TISVDTSKNQFSLKLSSVTAADTAVYYCAR	1C1	604
RVTIS**K**DTSKNQFSLKLSSVTAADTAVYYCAR	1C1	605
RVTISVD**N**SKNQFSLKLSSVTAADTAVYYCAR	1C1	606
RVTISVDTSK**S**QFSLKLSSVTAADTAVYYCAR	1C1	607
RVTISVDTSKNQ**V**SLKLSSVTAADTAVYYCAR	1C1	608
RVTISVDTSKNQFS**F**KLSSVTAADTAVYYCAR	1C1	609
RVTISVDTSKNQFSLK**M**SSVTAADTAVYYCAR	1C1	610
RVTISVDTSKNQFSLKLSS**L**TAADTAVYYCAR	1C1	611
RVTISVDTSKNQFSLKLSSV**Q**AADTAVYYCAR	1C1	612
RVTISVDTSKNQFSLKLSSVTA**Q**DTAVYYCAR	1C1	613
R**L**TIS**K**DTSKNQFSLKLSSVTAADTAVYYCAR	1C1	614
R**L**TISVD**N**SKNQFSLKLSSVTAADTAVYYCAR	1C1	615
R**L**TISVDTSK**S**QFSLKLSSVTAADTAVYYCAR	1C1	616
R**L**TISVDTSKNQ**V**SLKLSSVTAADTAVYYCAR	1C1	617
R**L**TISVDTSKNQFS**F**KLSSVTAADTAVYYCAR	1C1	618
R**L**TISVDTSKNQFSLK**M**SSVTAADTAVYYCAR	1C1	619
R**L**TISVDTSKNQFSLKLSS**L**TAADTAVYYCAR	1C1	620
R**L**TISVDTSKNQFSLKLSSV**Q**AADTAVYYCAR	1C1	621
R**L**TISVDTSKNQFSLKLSSVTA**Q**DTAVYYCAR	1C1	622
RVTIS**K**D**N**SKNQFSLKLSSVTAADTAVYYCAR	1C1	623
RVTIS**K**DTSK**S**QFSLKLSSVTAADTAVYYCAR	1C1	624
RVTIS**K**DTSKNQ**V**SLKLSSVTAADTAVYYCAR	1C1	625

RVTIS**K**DTSKNQFS**F**KLSSVTAADTAVYYCAR	1C1	626
RVTIS**K**DTSKNQFSLK**M**SSVTAADTAVYYCAR	1C1	627
RVTIS**K**DTSKNQFSLKLSS**L**TAADTAVYYCAR	1C1	628
RVTIS**K**DTSKNQFSLKLSSV**Q**AADTAVYYCAR	1C1	629
RVTIS**K**DTSKNQFSLKLSSVTA**Q**DTAVYYCAR	1C1	630
RVTISVD**N**SK**S**QFSLKLSSVTAADTAVYYCAR	1C1	631
RVTISVD**N**SKNQ**V**SLKLSSVTAADTAVYYCAR	1C1	632
RVTISVD**N**SKNQFS**F**KLSSVTAADTAVYYCAR	1C1	633
RVTISVD**N**SKNQFSLK**M**SSVTAADTAVYYCAR	1C1	634
RVTISVD**N**SKNQFSLKLSS**L**TAADTAVYYCAR	1C1	635
RVTISVD**N**SKNQFSLKLSSV**Q**AADTAVYYCAR	1C1	636
RVTISVD**N**SKNQFSLKLSSVTA**Q**DTAVYYCAR	1C1	637
RVTISVDTSK**S**Q**V**SLKLSSVTAADTAVYYCAR	1C1	638
RVTISVDTSK**S**QFS**F**KLSSVTAADTAVYYCAR	1C1	639
RVTISVDTSK**S**QFSLK**M**SSVTAADTAVYYCAR	1C1	640
RVTISVDTSK**S**QFSLKLSS**L**TAADTAVYYCAR	1C1	641
RVTISVDTSK**S**QFSLKLSSV**Q**AADTAVYYCAR	1C1	642
RVTISVDTSK**S**QFSLKLSSVTA**Q**DTAVYYCAR	1C1	643
RVTISVDTSKNQ**V**S**F**KLSSVTAADTAVYYCAR	1C1	644
RVTISVDTSKNQ**V**SLK**M**SSVTAADTAVYYCAR	1C1	645
RVTISVDTSKNQ**V**SLKLSS**L**TAADTAVYYCAR	1C1	646
RVTISVDTSKNQ**V**SLKLSSV**Q**AADTAVYYCAR	1C1	647
RVTISVDTSKNQ**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	648
RVTISVDTSKNQFS**F**K**M**SSVTAADTAVYYCAR	1C1	649
RVTISVDTSKNQFS**F**KLSS**L**TAADTAVYYCAR	1C1	650
RVTISVDTSKNQFS**F**KLSSV**Q**AADTAVYYCAR	1C1	651
RVTISVDTSKNQFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	652
RVTISVDTSKNQFSLK**M**SS**L**TAADTAVYYCAR	1C1	653
RVTISVDTSKNQFSLK**M**SSV**Q**AADTAVYYCAR	1C1	654
RVTISVDTSKNQFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	655
RVTISVDTSKNQFSLKLSS**LQ**AADTAVYYCAR	1C1	656

RVTISVDTSKNQFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	657
RVTISVDTSKNQFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	658
R**L**TIS**K**D**N**SKNQFSLKLSSVTAADTAVYYCAR	1C1	659
R**L**TIS**K**DTSK**S**QFSLKLSSVTAADTAVYYCAR	1C1	660
R**L**TIS**K**DTSKNQ**V**SLKLSSVTAADTAVYYCAR	1C1	661
R**L**TIS**K**DTSKNQFS**F**KLSSVTAADTAVYYCAR	1C1	662
R**L**TIS**K**DTSKNQFSLK**M**SSVTAADTAVYYCAR	1C1	663
R**L**TIS**K**DTSKNQFSLKLSS**L**TAADTAVYYCAR	1C1	664
R**L**TIS**K**DTSKNQFSLKLSSV**Q**AADTAVYYCAR	1C1	665
R**L**TIS**K**DTSKNQFSLKLSSVTA**Q**DTAVYYCAR	1C1	666
R**L**TISVD**N**SK**S**QFSLKLSSVTAADTAVYYCAR	1C1	667
R**L**TISVD**N**SKNQ**V**SLKLSSVTAADTAVYYCAR	1C1	668
R**L**TISVD**N**SKNQFS**F**KLSSVTAADTAVYYCAR	1C1	669
R**L**TISVD**N**SKNQFSLK**M**SSVTAADTAVYYCAR	1C1	670
R**L**TISVD**N**SKNQFSLKLSS**L**TAADTAVYYCAR	1C1	671
R**L**TISVD**N**SKNQFSLKLSSV**Q**AADTAVYYCAR	1C1	672
R**L**TISVD**N**SKNQFSLKLSSVTA**Q**DTAVYYCAR	1C1	673
R**L**TISVDTSK**S**Q**V**SLKLSSVTAADTAVYYCAR	1C1	674
R**L**TISVDTSK**S**QFS**F**KLSSVTAADTAVYYCAR	1C1	675
R**L**TISVDTSK**S**QFSLK**M**SSVTAADTAVYYCAR	1C1	676
R**L**TISVDTSK**S**QFSLKLSS**L**TAADTAVYYCAR	1C1	677
R**L**TISVDTSK**S**QFSLKLSSV**Q**AADTAVYYCAR	1C1	678
R**L**TISVDTSK**S**QFSLKLSSVTA**Q**DTAVYYCAR	1C1	679
R**L**TISVDTSKNQ**V**S**F**KLSSVTAADTAVYYCAR	1C1	680
R**L**TISVDTSKNQ**V**SLK**M**SSVTAADTAVYYCAR	1C1	681
R**L**TISVDTSKNQ**V**SLKLSS**L**TAADTAVYYCAR	1C1	682
R**L**TISVDTSKNQ**V**SLKLSSV**Q**AADTAVYYCAR	1C1	683
R**L**TISVDTSKNQ**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	684
R**L**TISVDTSKNQFS**F**K**M**SSVTAADTAVYYCAR	1C1	685
R**L**TISVDTSKNQFS**F**KLSS**L**TAADTAVYYCAR	1C1	686
R**L**TISVDTSKNQFS**F**KLSSV**Q**AADTAVYYCAR	1C1	687

R**L**TISVDTSKNQFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	688
R**L**TISVDTSKNQFSLK**M**SS**L**TAADTAVYYCAR	1C1	689
R**L**TISVDTSKNQFSLK**M**SSV**Q**AADTAVYYCAR	1C1	690
R**L**TISVDTSKNQFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	691
R**L**TISVDTSKNQFSLKLSS**LQ**AADTAVYYCAR	1C1	692
R**L**TISVDTSKNQFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	693
R**L**TISVDTSKNQFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	694
RVTIS**K**D**N**SK**S**QFSLKLSSVTAADTAVYYCAR	1C1	695
RVTIS**K**D**N**SKNQ**V**SLKLSSVTAADTAVYYCAR	1C1	696
RVTIS**K**D**N**SKNQFS**F**KLSSVTAADTAVYYCAR	1C1	697
RVTIS**K**D**N**SKNQFSLK**M**SSVTAADTAVYYCAR	1C1	698
RVTIS**K**D**N**SKNQFSLKLSS**L**TAADTAVYYCAR	1C1	699
RVTIS**K**D**N**SKNQFSLKLSSV**Q**AADTAVYYCAR	1C1	700
RVTIS**K**D**N**SKNQFSLKLSSVTA**Q**DTAVYYCAR	1C1	701
RVTIS**K**DTSK**S**Q**V**SLKLSSVTAADTAVYYCAR	1C1	702
RVTIS**K**DTSK**S**QFS**F**KLSSVTAADTAVYYCAR	1C1	703
RVTIS**K**DTSK**S**QFSLK**M**SSVTAADTAVYYCAR	1C1	704
RVTIS**K**DTSK**S**QFSLKLSS**L**TAADTAVYYCAR	1C1	705
RVTIS**K**DTSK**S**QFSLKLSSV**Q**AADTAVYYCAR	1C1	706
RVTIS**K**DTSK**S**QFSLKLSSVTA**Q**DTAVYYCAR	1C1	707
RVTIS**K**DTSKNQ**V**S**F**KLSSVTAADTAVYYCAR	1C1	708
RVTIS**K**DTSKNQ**V**SLK**M**SSVTAADTAVYYCAR	1C1	709
RVTIS**K**DTSKNQ**V**SLKLSS**L**TAADTAVYYCAR	1C1	710
RVTIS**K**DTSKNQ**V**SLKLSSV**Q**AADTAVYYCAR	1C1	711
RVTIS**K**DTSKNQ**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	712
RVTIS**K**DTSKNQFS**F**K**M**SSVTAADTAVYYCAR	1C1	713
RVTIS**K**DTSKNQFS**F**KLSS**L**TAADTAVYYCAR	1C1	714
RVTIS**K**DTSKNQFS**F**KLSSV**Q**AADTAVYYCAR	1C1	715
RVTIS**K**DTSKNQFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	716
RVTIS**K**DTSKNQFSLK**M**SS**L**TAADTAVYYCAR	1C1	717
RVTIS**K**DTSKNQFSLK**M**SSV**Q**AADTAVYYCAR	1C1	718

RVTIS**K**DTSKNQFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	719
RVTIS**K**DTSKNQFSLKLSS**LQ**AADTAVYYCAR	1C1	720
RVTIS**K**DTSKNQFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	721
RVTIS**K**DTSKNQFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	722
RVTISVD**N**SK**S**Q**V**SLKLSSVTAADTAVYYCAR	1C1	723
RVTISVD**N**SK**S**QFS**F**KLSSVTAADTAVYYCAR	1C1	724
RVTISVD**N**SK**S**QFSLK**M**SSVTAADTAVYYCAR	1C1	725
RVTISVD**N**SK**S**QFSLKLSS**L**TAADTAVYYCAR	1C1	726
RVTISVD**N**SK**S**QFSLKLSSV**Q**AADTAVYYCAR	1C1	727
RVTISVD**N**SK**S**QFSLKLSSVTA**Q**DTAVYYCAR	1C1	728
RVTISVD**N**SKNQ**V**S**F**KLSSVTAADTAVYYCAR	1C1	729
RVTISVD**N**SKNQ**V**SLK**M**SSVTAADTAVYYCAR	1C1	730
RVTISVD**N**SKNQ**V**SLKLSS**L**TAADTAVYYCAR	1C1	731
RVTISVD**N**SKNQ**V**SLKLSSV**Q**AADTAVYYCAR	1C1	732
RVTISVD**N**SKNQ**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	733
RVTISVD**N**SKNQFS**F**K**M**SSVTAADTAVYYCAR	1C1	734
RVTISVD**N**SKNQFS**F**KLSS**L**TAADTAVYYCAR	1C1	735
RVTISVD**N**SKNQFS**F**KLSSV**Q**AADTAVYYCAR	1C1	736
RVTISVD**N**SKNQFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	737
RVTISVD**N**SKNQFSLK**M**SS**L**TAADTAVYYCAR	1C1	738
RVTISVD**N**SKNQFSLK**M**SSV**Q**AADTAVYYCAR	1C1	739
RVTISVD**N**SKNQFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	740
RVTISVD**N**SKNQFSLKLSS**LQ**AADTAVYYCAR	1C1	741
RVTISVD**N**SKNQFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	742
RVTISVD**N**SKNQFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	743
RVTISVDTSK**S**Q**V**S**F**KLSSVTAADTAVYYCAR	1C1	744
RVTISVDTSK**S**Q**V**SLK**M**SSVTAADTAVYYCAR	1C1	745
RVTISVDTSK**S**Q**V**SLKLSS**L**TAADTAVYYCAR	1C1	746
RVTISVDTSK**S**Q**V**SLKLSSV**Q**AADTAVYYCAR	1C1	747
RVTISVDTSK**S**Q**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	748
RVTISVDTSK**S**QFS**F**K**M**SSVTAADTAVYYCAR	1C1	749

RVTISVDTSK**S**QFS**F**KLSS**L**TAADTAVYYCAR	1C1	750
RVTISVDTSK**S**QFS**F**KLSSV**Q**AADTAVYYCAR	1C1	751
RVTISVDTSK**S**QFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	752
RVTISVDTSK**S**QFSLK**M**SS**L**TAADTAVYYCAR	1C1	753
RVTISVDTSK**S**QFSLK**M**SSV**Q**AADTAVYYCAR	1C1	754
RVTISVDTSK**S**QFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	755
RVTISVDTSK**S**QFSLKLSS**LQ**AADTAVYYCAR	1C1	756
RVTISVDTSK**S**QFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	757
RVTISVDTSK**S**QFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	758
RVTISVDTSKNQ**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	759
RVTISVDTSKNQ**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	760
RVTISVDTSKNQ**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	761
RVTISVDTSKNQ**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	762
RVTISVDTSKNQ**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	763
RVTISVDTSKNQ**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	764
RVTISVDTSKNQ**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	765
RVTISVDTSKNQ**V**SLKLSS**LQ**AADTAVYYCAR	1C1	766
RVTISVDTSKNQ**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	767
RVTISVDTSKNQ**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	768
RVTISVDTSKNQFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	769
RVTISVDTSKNQFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	770
RVTISVDTSKNQFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	771
RVTISVDTSKNQFS**F**KLSS**LQ**AADTAVYYCAR	1C1	772
RVTISVDTSKNQFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	773
RVTISVDTSKNQFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	774
RVTISVDTSKNQFSLK**M**SS**LQ**AADTAVYYCAR	1C1	775
RVTISVDTSKNQFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	776
RVTISVDTSKNQFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	777
RVTISVDTSKNQFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	778
R**L**TIS**K**D**N**SK**S**QFSLKLSSVTAADTAVYYCAR	1C1	779
R**L**TIS**K**D**N**SKNQ**V**SLKLSSVTAADTAVYYCAR	1C1	780

R**L**TIS**K**D**N**SKNQFS**F**KLSSVTAADTAVYYCAR	1C1	781
R**L**TIS**K**D**N**SKNQFSLK**M**SSVTAADTAVYYCAR	1C1	782
R**L**TIS**K**D**N**SKNQFSLKLSS**L**TAADTAVYYCAR	1C1	783
R**L**TIS**K**D**N**SKNQFSLKLSSV**Q**AADTAVYYCAR	1C1	784
R**L**TIS**K**D**N**SKNQFSLKLSSVTA**Q**DTAVYYCAR	1C1	785
R**L**TIS**K**DTSK**S**Q**V**SLKLSSVTAADTAVYYCAR	1C1	786
R**L**TIS**K**DTSK**S**QFS**F**KLSSVTAADTAVYYCAR	1C1	787
R**L**TIS**K**DTSK**S**QFSLK**M**SSVTAADTAVYYCAR	1C1	788
R**L**TIS**K**DTSK**S**QFSLKLSS**L**TAADTAVYYCAR	1C1	789
R**L**TIS**K**DTSK**S**QFSLKLSSV**Q**AADTAVYYCAR	1C1	790
R**L**TIS**K**DTSK**S**QFSLKLSSVTA**Q**DTAVYYCAR	1C1	791
R**L**TIS**K**DTSKNQ**V**S**F**KLSSVTAADTAVYYCAR	1C1	792
R**L**TIS**K**DTSKNQ**V**SLK**M**SSVTAADTAVYYCAR	1C1	793
R**L**TIS**K**DTSKNQ**V**SLKLSS**L**TAADTAVYYCAR	1C1	794
R**L**TIS**K**DTSKNQ**V**SLKLSSV**Q**AADTAVYYCAR	1C1	795
R**L**TIS**K**DTSKNQ**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	796
R**L**TIS**K**DTSKNQFS**F**K**M**SSVTAADTAVYYCAR	1C1	797
R**L**TIS**K**DTSKNQFS**F**KLSS**L**TAADTAVYYCAR	1C1	798
R**L**TIS**K**DTSKNQFS**F**KLSSV**Q**AADTAVYYCAR	1C1	799
R**L**TIS**K**DTSKNQFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	800
R**L**TIS**K**DTSKNQFSLK**M**SS**L**TAADTAVYYCAR	1C1	801
R**L**TIS**K**DTSKNQFSLK**M**SSV**Q**AADTAVYYCAR	1C1	802
R**L**TIS**K**DTSKNQFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	803
R**L**TIS**K**DTSKNQFSLKLSS**LQ**AADTAVYYCAR	1C1	804
R**L**TIS**K**DTSKNQFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	805
R**L**TIS**K**DTSKNQFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	806
R**L**TISVD**N**SK**S**Q**V**SLKLSSVTAADTAVYYCAR	1C1	807
R**L**TISVD**N**SK**S**QFS**F**KLSSVTAADTAVYYCAR	1C1	808
R**L**TISVD**N**SK**S**QFSLK**M**SSVTAADTAVYYCAR	1C1	809
R**L**TISVD**N**SK**S**QFSLKLSS**L**TAADTAVYYCAR	1C1	810
R**L**TISVD**N**SK**S**QFSLKLSSV**Q**AADTAVYYCAR	1C1	811

R**L**TISVD**N**SK**S**QFSLKLSSVTA**Q**DTAVYYCAR	1C1	812
R**L**TISVD**N**SKNQ**V**S**F**KLSSVTAADTAVYYCAR	1C1	813
R**L**TISVD**N**SKNQ**V**SLK**M**SSVTAADTAVYYCAR	1C1	814
R**L**TISVD**N**SKNQ**V**SLKLSS**L**TAADTAVYYCAR	1C1	815
R**L**TISVD**N**SKNQ**V**SLKLSSV**Q**AADTAVYYCAR	1C1	816
R**L**TISVD**N**SKNQ**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	817
R**L**TISVD**N**SKNQFS**F**K**M**SSVTAADTAVYYCAR	1C1	818
R**L**TISVD**N**SKNQFS**F**KLSS**L**TAADTAVYYCAR	1C1	819
R**L**TISVD**N**SKNQFS**F**KLSSV**Q**AADTAVYYCAR	1C1	820
R**L**TISVD**N**SKNQFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	821
R**L**TISVD**N**SKNQFSLK**M**SS**L**TAADTAVYYCAR	1C1	822
R**L**TISVD**N**SKNQFSLK**M**SSV**Q**AADTAVYYCAR	1C1	823
R**L**TISVD**N**SKNQFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	824
R**L**TISVD**N**SKNQFSLKLSS**LQ**AADTAVYYCAR	1C1	825
R**L**TISVD**N**SKNQFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	826
R**L**TISVD**N**SKNQFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	827
R**L**TISVDTSK**S**Q**V**S**F**KLSSVTAADTAVYYCAR	1C1	828
R**L**TISVDTSK**S**Q**V**SLK**M**SSVTAADTAVYYCAR	1C1	829
R**L**TISVDTSK**S**Q**V**SLKLSS**L**TAADTAVYYCAR	1C1	830
R**L**TISVDTSK**S**Q**V**SLKLSSV**Q**AADTAVYYCAR	1C1	831
R**L**TISVDTSK**S**Q**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	832
R**L**TISVDTSK**S**QFS**F**K**M**SSVTAADTAVYYCAR	1C1	833
R**L**TISVDTSK**S**QFS**F**KLSS**L**TAADTAVYYCAR	1C1	834
R**L**TISVDTSK**S**QFS**F**KLSSV**Q**AADTAVYYCAR	1C1	835
R**L**TISVDTSK**S**QFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	836
R**L**TISVDTSK**S**QFSLK**M**SS**L**TAADTAVYYCAR	1C1	837
R**L**TISVDTSK**S**QFSLK**M**SSV**Q**AADTAVYYCAR	1C1	838
R**L**TISVDTSK**S**QFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	839
R**L**TISVDTSK**S**QFSLKLSS**LQ**AADTAVYYCAR	1C1	840
R**L**TISVDTSK**S**QFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	841
R**L**TISVDTSK**S**QFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	842

R**L**TISVDTSKNQ**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	843
R**L**TISVDTSKNQ**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	844
R**L**TISVDTSKNQ**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	845
R**L**TISVDTSKNQ**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	846
R**L**TISVDTSKNQ**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	847
R**L**TISVDTSKNQ**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	848
R**L**TISVDTSKNQ**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	849
R**L**TISVDTSKNQ**V**SLKLSS**LQ**AADTAVYYCAR	1C1	850
R**L**TISVDTSKNQ**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	851
R**L**TISVDTSKNQ**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	852
R**L**TISVDTSKNQFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	853
R**L**TISVDTSKNQFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	854
R**L**TISVDTSKNQFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	855
R**L**TISVDTSKNQFS**F**KLSS**LQ**AADTAVYYCAR	1C1	856
R**L**TISVDTSKNQFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	857
R**L**TISVDTSKNQFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	858
R**L**TISVDTSKNQFSLK**M**SS**LQ**AADTAVYYCAR	1C1	859
R**L**TISVDTSKNQFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	860
R**L**TISVDTSKNQFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	861
R**L**TISVDTSKNQFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	862
RVTIS**K**D**N**SK**S**QVSLKLSSVTAADTAVYYCAR	1C1	863
RVTIS**K**D**N**SK**S**QFS**F**KLSSVTAADTAVYYCAR	1C1	864
RVTIS**K**D**N**SK**S**QFSLK**M**SSVTAADTAVYYCAR	1C1	865
RVTIS**K**D**N**SK**S**QFSLKLSS**L**TAADTAVYYCAR	1C1	866
RVTIS**K**D**N**SK**S**QFSLKLSSV**Q**AADTAVYYCAR	1C1	867
RVTIS**K**D**N**SK**S**QFSLKLSSVTA**Q**DTAVYYCAR	1C1	868
RVTIS**K**D**N**SKNQ**V**S**F**KLSSVTAADTAVYYCAR	1C1	869
RVTIS**K**D**N**SKNQ**V**SLK**M**SSVTAADTAVYYCAR	1C1	870
RVTIS**K**D**N**SKNQ**V**SLKLSS**L**TAADTAVYYCAR	1C1	871
RVTIS**K**D**N**SKNQ**V**SLKLSSV**Q**AADTAVYYCAR	1C1	872
RVTIS**K**D**N**SKNQ**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	873

RVTIS**K**D**N**SKNQFS**F**K**M**SSVTAADTAVYYCAR	1C1	874
RVTIS**K**D**N**SKNQFS**F**KLSS**L**TAADTAVYYCAR	1C1	875
RVTIS**K**D**N**SKNQFS**F**KLSSV**Q**AADTAVYYCAR	1C1	876
RVTIS**K**D**N**SKNQFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	877
RVTIS**K**D**N**SKNQFSLK**M**SS**L**TAADTAVYYCAR	1C1	878
RVTIS**K**D**N**SKNQFSLK**M**SSV**Q**AADTAVYYCAR	1C1	879
RVTIS**K**D**N**SKNQFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	880
RVTIS**K**D**N**SKNQFSLKLSS**LQ**AADTAVYYCAR	1C1	881
RVTIS**K**D**N**SKNQFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	882
RVTIS**K**D**N**SKNQFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	883
RVTIS**K**DTSK**S**Q**V**S**F**KLSSVTAADTAVYYCAR	1C1	884
RVTIS**K**DTSK**S**Q**V**SLK**M**SSVTAADTAVYYCAR	1C1	885
RVTIS**K**DTSK**S**Q**V**SLKLSS**L**TAADTAVYYCAR	1C1	886
RVTIS**K**DTSK**S**Q**V**SLKLSSV**Q**AADTAVYYCAR	1C1	887
RVTIS**K**DTSK**S**Q**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	888
RVTIS**K**DTSK**S**QFS**F**K**M**SSVTAADTAVYYCAR	1C1	889
RVTIS**K**DTSK**S**QFS**F**KLSS**L**TAADTAVYYCAR	1C1	890
RVTIS**K**DTSK**S**QFS**F**KLSSV**Q**AADTAVYYCAR	1C1	891
RVTIS**K**DTSK**S**QFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	892
RVTIS**K**DTSK**S**QFSLK**M**SS**L**TAADTAVYYCAR	1C1	893
RVTIS**K**DTSK**S**QFSLK**M**SSV**Q**AADTAVYYCAR	1C1	894
RVTIS**K**DTSK**S**QFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	895
RVTIS**K**DTSK**S**QFSLKLSS**LQ**AADTAVYYCAR	1C1	896
RVTIS**K**DTSK**S**QFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	897
RVTIS**K**DTSK**S**QFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	898
RVTIS**K**DTSKNQ**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	899
RVTIS**K**DTSKNQ**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	900
RVTIS**K**DTSKNQ**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	901
RVTIS**K**DTSKNQ**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	902
RVTIS**K**DTSKNQ**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	903
RVTIS**K**DTSKNQ**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	904

RVTIS**K**DTSKNQ**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	905
RVTIS**K**DTSKNQ**V**SLKLSS**LQ**AADTAVYYCAR	1C1	906
RVTIS**K**DTSKNQ**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	907
RVTIS**K**DTSKNQ**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	908
RVTIS**K**DTSKNQFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	909
RVTIS**K**DTSKNQFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	910
RVTIS**K**DTSKNQFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	911
RVTIS**K**DTSKNQFS**F**KLSS**LQ**AADTAVYYCAR	1C1	912
RVTIS**K**DTSKNQFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	913
RVTIS**K**DTSKNQFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	914
RVTIS**K**DTSKNQFSLK**M**SS**LQ**AADTAVYYCAR	1C1	915
RVTIS**K**DTSKNQFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	916
RVTIS**K**DTSKNQFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	917
RVTIS**K**DTSKNQFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	918
RVTISVD**N**SK**S**Q**V**S**F**KLSSVTAADTAVYYCAR	1C1	919
RVTISVD**N**SK**S**Q**V**SLK**M**SSVTAADTAVYYCAR	1C1	920
RVTISVD**N**SK**S**Q**V**SLKLSS**L**TAADTAVYYCAR	1C1	921
RVTISVD**N**SK**S**Q**V**SLKLSSV**Q**AADTAVYYCAR	1C1	922
RVTISVD**N**SK**S**Q**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	923
RVTISVD**N**SK**S**QFS**F**K**M**SSVTAADTAVYYCAR	1C1	924
RVTISVD**N**SK**S**QFS**F**KLSS**L**TAADTAVYYCAR	1C1	925
RVTISVD**N**SK**S**QFS**F**KLSSV**Q**AADTAVYYCAR	1C1	926
RVTISVD**N**SK**S**QFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	927
RVTISVD**N**SK**S**QFSLK**M**SS**L**TAADTAVYYCAR	1C1	928
RVTISVD**N**SK**S**QFSLK**M**SSV**Q**AADTAVYYCAR	1C1	929
RVTISVD**N**SK**S**QFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	930
RVTISVD**N**SK**S**QFSLKLSS**LQ**AADTAVYYCAR	1C1	931
RVTISVD**N**SK**S**QFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	932
RVTISVD**N**SK**S**QFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	933
RVTISVD**N**SKNQ**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	934
RVTISVD**N**SKNQ**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	935

RVTISVD**N**SKNQ**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	936
RVTISVD**N**SKNQ**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	937
RVTISVD**N**SKNQ**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	938
RVTISVD**N**SKNQ**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	939
RVTISVD**N**SKNQ**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	940
RVTISVD**N**SKNQ**V**SLKLSS**LQ**AADTAVYYCAR	1C1	941
RVTISVD**N**SKNQ**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	942
RVTISVD**N**SKNQ**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	943
RVTISVD**N**SKNQFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	944
RVTISVD**N**SKNQFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	945
RVTISVD**N**SKNQFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	946
RVTISVD**N**SKNQFS**F**KLSS**LQ**AADTAVYYCAR	1C1	947
RVTISVD**N**SKNQFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	948
RVTISVD**N**SKNQFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	949
RVTISVD**N**SKNQFSLK**M**SS**LQ**AADTAVYYCAR	1C1	950
RVTISVD**N**SKNQFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	951
RVTISVD**N**SKNQFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	952
RVTISVD**N**SKNQFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	953
RVTISVDTSK**S**Q**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	954
RVTISVDTSK**S**Q**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	955
RVTISVDTSK**S**Q**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	956
RVTISVDTSK**S**Q**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	957
RVTISVDTSK**S**Q**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	958
RVTISVDTSK**S**Q**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	959
RVTISVDTSK**S**Q**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	960
RVTISVDTSK**S**Q**V**SLKLSS**LQ**AADTAVYYCAR	1C1	961
RVTISVDTSK**S**Q**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	962
RVTISVDTSK**S**Q**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	963
RVTISVDTSK**S**QFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	964
RVTISVDTSK**S**QFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	965
RVTISVDTSK**S**QFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	966

RVTISVDTSK**S**QFS**F**KLSS**LQ**AADTAVYYCAR	1C1	967
RVTISVDTSK**S**QFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	968
RVTISVDTSK**S**QFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	969
RVTISVDTSK**S**QFSLK**M**SS**LQ**AADTAVYYCAR	1C1	970
RVTISVDTSK**S**QFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	971
RVTISVDTSK**S**QFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	972
RVTISVDTSK**S**QFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	973
RVTISVDTSKNQ**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	974
RVTISVDTSKNQ**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	975
RVTISVDTSKNQ**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	976
RVTISVDTSKNQ**V**S**F**KLSS**LQ**AADTAVYYCAR	1C1	977
RVTISVDTSKNQ**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	978
RVTISVDTSKNQ**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	979
RVTISVDTSKNQ**V**SLK**M**SS**LQ**AADTAVYYCAR	1C1	980
RVTISVDTSKNQ**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	981
RVTISVDTSKNQ**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	982
RVTISVDTSKNQ**V**SLKLSS**LQ**A**Q**DTAVYYCAR	1C1	983
RVTISVDTSKNQFS**F**K**M**SS**LQ**AADTAVYYCAR	1C1	984
RVTISVDTSKNQFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	985
RVTISVDTSKNQFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	986
RVTISVDTSKNQFS**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	987
RVTISVDTSKNQFSLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	988
R**L**TIS**K**D**N**SK**S**Q**V**SLKLSSVTAADTAVYYCAR	1C1	989
R**L**TIS**K**D**N**SK**S**QFS**F**KLSSVTAADTAVYYCAR	1C1	990
R**L**TIS**K**D**N**SK**S**QFSLK**M**SSVTAADTAVYYCAR	1C1	991
R**L**TIS**K**D**N**SK**S**QFSLKLSS**L**TAADTAVYYCAR	1C1	992
R**L**TIS**K**D**N**SK**S**QFSLKLSSV**Q**AADTAVYYCAR	1C1	993
R**L**TIS**K**D**N**SK**S**QFSLKLSSVTA**Q**DTAVYYCAR	1C1	994
R**L**TIS**K**D**N**SKNQ**V**S**F**KLSSVTAADTAVYYCAR	1C1	995
R**L**TIS**K**D**N**SKNQ**V**SLK**M**SSVTAADTAVYYCAR	1C1	996
R**L**TIS**K**D**N**SKNQ**V**SLKLSS**L**TAADTAVYYCAR	1C1	997

R**L**TIS**K**D**N**SKNQ**V**SLKLSSV**Q**AADTAVYYCAR	1C1	998
R**L**TIS**K**D**N**SKNQ**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	999
R**L**TIS**K**D**N**SKNQFS**F**K**M**SSVTAADTAVYYCAR	1C1	1000
R**L**TIS**K**D**N**SKNQFS**F**KLSS**L**TAADTAVYYCAR	1C1	1001
R**L**TIS**K**D**N**SKNQFS**F**KLSSV**Q**AADTAVYYCAR	1C1	1002
R**L**TIS**K**D**N**SKNQFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	1003
R**L**TIS**K**D**N**SKNQFSLK**M**SS**L**TAADTAVYYCAR	1C1	1004
R**L**TIS**K**D**N**SKNQFSLK**M**SSV**Q**AADTAVYYCAR	1C1	1005
R**L**TIS**K**D**N**SKNQFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	1006
R**L**TIS**K**D**N**SKNQFSLKLSS**LQ**AADTAVYYCAR	1C1	1007
R**L**TIS**K**D**N**SKNQFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	1008
R**L**TIS**K**D**N**SKNQFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1009
R**L**TIS**K**DTSK**S**Q**V**S**F**KLSSVTAADTAVYYCAR	1C1	1010
R**L**TIS**K**DTSK**S**Q**V**SLK**M**SSVTAADTAVYYCAR	1C1	1011
R**L**TIS**K**DTSK**S**Q**V**SLKLSS**L**TAADTAVYYCAR	1C1	1012
R**L**TIS**K**DTSK**S**Q**V**SLKLSSV**Q**AADTAVYYCAR	1C1	1013
R**L**TIS**K**DTSK**S**Q**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	1014
R**L**TIS**K**DTSK**S**QFS**F**K**M**SSVTAADTAVYYCAR	1C1	1015
R**L**TIS**K**DTSK**S**QFS**F**KLSS**L**TAADTAVYYCAR	1C1	1016
R**L**TIS**K**DTSK**S**QFS**F**KLSSV**Q**AADTAVYYCAR	1C1	1017
R**L**TIS**K**DTSK**S**QFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	1018
R**L**TIS**K**DTSK**S**QFSLK**M**SS**L**TAADTAVYYCAR	1C1	1019
R**L**TIS**K**DTSK**S**QFSLK**M**SSV**Q**AADTAVYYCAR	1C1	1020
R**L**TIS**K**DTSK**S**QFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	1021
R**L**TIS**K**DTSK**S**QFSLKLSS**LQ**AADTAVYYCAR	1C1	1022
R**L**TIS**K**DTSK**S**QFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	1023
R**L**TIS**K**DTSK**S**QFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1024
R**L**TIS**K**DTSKNQ**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	1025
R**L**TIS**K**DTSKNQ**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	1026
R**L**TIS**K**DTSKNQ**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	1027
R**L**TIS**K**DTSKNQ**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	1028

R**L**TIS**K**DTSKNQ**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	1029
R**L**TIS**K**DTSKNQ**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	1030
R**L**TIS**K**DTSKNQ**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	1031
R**L**TIS**K**DTSKNQ**V**SLKLSS**LQ**AADTAVYYCAR	1C1	1032
R**L**TIS**K**DTSKNQ**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	1033
R**L**TIS**K**DTSKNQ**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1034
R**L**TIS**K**DTSKNQFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	1035
R**L**TIS**K**DTSKNQFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1036
R**L**TIS**K**DTSKNQFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1037
R**L**TIS**K**DTSKNQFS**F**KLSS**LQ**AADTAVYYCAR	1C1	1038
R**L**TIS**K**DTSKNQFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1039
R**L**TIS**K**DTSKNQFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1040
R**L**TIS**K**DTSKNQFSLK**M**SS**LQ**AADTAVYYCAR	1C1	1041
R**L**TIS**K**DTSKNQFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1042
R**L**TIS**K**DTSKNQFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1043
R**L**TIS**K**DTSKNQFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1044
R**L**TISVD**N**SK**S**Q**V**S**F**KLSSVTAADTAVYYCAR	1C1	1045
R**L**TISVD**N**SK**S**Q**V**SLK**M**SSVTAADTAVYYCAR	1C1	1046
R**L**TISVD**N**SK**S**Q**V**SLKLSS**L**TAADTAVYYCAR	1C1	1047
R**L**TISVD**N**SK**S**Q**V**SLKLSSV**Q**AADTAVYYCAR	1C1	1048
R**L**TISVD**N**SK**S**Q**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	1049
R**L**TISVD**N**SK**S**QFS**F**K**M**SSVTAADTAVYYCAR	1C1	1050
R**L**TISVD**N**SK**S**QFS**F**KLSS**L**TAADTAVYYCAR	1C1	1051
R**L**TISVD**N**SK**S**QFS**F**KLSSV**Q**AADTAVYYCAR	1C1	1052
R**L**TISVD**N**SK**S**QFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	1053
R**L**TISVD**N**SK**S**QFSLK**M**SS**L**TAADTAVYYCAR	1C1	1054
R**L**TISVD**N**SK**S**QFSLK**M**SSV**Q**AADTAVYYCAR	1C1	1055
R**L**TISVD**N**SK**S**QFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	1056
R**L**TISVD**N**SK**S**QFSLKLSS**LQ**AADTAVYYCAR	1C1	1057
R**L**TISVD**N**SK**S**QFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	1058
R**L**TISVD**N**SK**S**QFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1059

R**L**TISVD**N**SKNQ**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	1060
R**L**TISVD**N**SKNQ**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	1061
R**L**TISVD**N**SKNQ**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	1062
R**L**TISVD**N**SKNQ**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	1063
R**L**TISVD**N**SKNQ**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	1064
R**L**TISVD**N**SKNQ**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	1065
R**L**TISVD**N**SKNQ**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	1066
R**L**TISVD**N**SKNQ**V**SLKLSS**LQ**AADTAVYYCAR	1C1	1067
R**L**TISVD**N**SKNQ**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	1068
R**L**TISVD**N**SKNQ**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1069
R**L**TISVD**N**SKNQFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	1070
R**L**TISVD**N**SKNQFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1071
R**L**TISVD**N**SKNQFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1072
R**L**TISVD**N**SKNQFS**F**KLSS**LQ**AADTAVYYCAR	1C1	1073
R**L**TISVD**N**SKNQFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1074
R**L**TISVD**N**SKNQFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1075
R**L**TISVD**N**SKNQFSLK**M**SS**LQ**AADTAVYYCAR	1C1	1076
R**L**TISVD**N**SKNQFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1077
R**L**TISVD**N**SKNQFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1078
R**L**TISVD**N**SKNQFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1079
R**L**TISVDTSK**S**Q**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	1080
R**L**TISVDTSK**S**Q**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	1081
R**L**TISVDTSK**S**Q**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	1082
R**L**TISVDTSK**S**Q**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	1083
R**L**TISVDTSK**S**Q**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	1084
R**L**TISVDTSK**S**Q**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	1085
R**L**TISVDTSK**S**Q**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	1086
R**L**TISVDTSK**S**Q**V**SLKLSS**LQ**AADTAVYYCAR	1C1	1087
R**L**TISVDTSK**S**Q**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	1088
R**L**TISVDTSK**S**Q**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1089
R**L**TISVDTSK**S**QFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	1090

R**L**TISVDTSK**S**QFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1091
R**L**TISVDTSK**S**QFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1092
R**L**TISVDTSK**S**QFS**F**KLSS**LQ**AADTAVYYCAR	1C1	1093
R**L**TISVDTSK**S**QFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1094
R**L**TISVDTSK**S**QFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1095
R**L**TISVDTSK**S**QFSLK**M**SS**LQ**AADTAVYYCAR	1C1	1096
R**L**TISVDTSK**S**QFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1097
R**L**TISVDTSK**S**QFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1098
R**L**TISVDTSK**S**QFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1099
R**L**TISVDTSKNQ**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1100
R**L**TISVDTSKNQ**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1101
R**L**TISVDTSKNQ**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1102
R**L**TISVDTSKNQ**V**S**F**KLSS**LQ**AADTAVYYCAR	1C1	1103
R**L**TISVDTSKNQ**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1104
R**L**TISVDTSKNQ**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1105
R**L**TISVDTSKNQ**V**SLK**M**SS**LQ**AADTAVYYCAR	1C1	1106
R**L**TISVDTSKNQ**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1107
R**L**TISVDTSKNQ**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1108
R**L**TISVDTSKNQ**V**SLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1109
R**L**TISVDTSKNQFS**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1110
R**L**TISVDTSKNQFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1111
R**L**TISVDTSKNQFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1112
R**L**TISVDTSKNQFS**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1113
R**L**TISVDTSKNQFSLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1114
RVTIS**K**D**N**SK**S**Q**V**S**F**KLSSVTAADTAVYYCAR	1C1	1115
RVTIS**K**D**N**SK**S**Q**V**SLK**M**SSVTAADTAVYYCAR	1C1	1116
RVTIS**K**D**N**SK**S**Q**V**SLKLSS**L**TAADTAVYYCAR	1C1	1117
RVTIS**K**D**N**SK**S**Q**V**SLKLSSV**Q**AADTAVYYCAR	1C1	1118
RVTIS**K**D**N**SK**S**Q**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	1119
RVTIS**K**D**N**SK**S**QFS**F**K**M**SSVTAADTAVYYCAR	1C1	1120
RVTIS**K**D**N**SK**S**QFS**F**KLSS**L**TAADTAVYYCAR	1C1	1121

RVTIS**K**D**N**SK**S**QFS**F**KLSSV**Q**AADTAVYYCAR	1C1	1122
RVTIS**K**D**N**SK**S**QFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	1123
RVTIS**K**D**N**SK**S**QFSLK**M**SS**L**TAADTAVYYCAR	1C1	1124
RVTIS**K**D**N**SK**S**QFSLK**M**SSV**Q**AADTAVYYCAR	1C1	1125
RVTIS**K**D**N**SK**S**QFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	1126
RVTIS**K**D**N**SK**S**QFSLKLSS**LQ**AADTAVYYCAR	1C1	1127
RVTIS**K**D**N**SK**S**QFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	1128
RVTIS**K**D**N**SK**S**QFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1129
RVTIS**K**D**N**SKNQ**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	1130
RVTIS**K**D**N**SKNQ**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	1131
RVTIS**K**D**N**SKNQ**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	1132
RVTIS**K**D**N**SKNQ**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	1133
RVTIS**K**D**N**SKNQ**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	1134
RVTIS**K**D**N**SKNQ**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	1135
RVTIS**K**D**N**SKNQ**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	1136
RVTIS**K**D**N**SKNQ**V**SLKLSS**LQ**AADTAVYYCAR	1C1	1137
RVTIS**K**D**N**SKNQ**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	1138
RVTIS**K**D**N**SKNQ**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1139
RVTIS**K**D**N**SKNQFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	1140
RVTIS**K**D**N**SKNQFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1141
RVTIS**K**D**N**SKNQFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1142
RVTIS**K**D**N**SKNQFS**F**KLSS**LQ**AADTAVYYCAR	1C1	1143
RVTIS**K**D**N**SKNQFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1144
RVTIS**K**D**N**SKNQFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1145
RVTIS**K**D**N**SKNQFSLK**M**SS**LQ**AADTAVYYCAR	1C1	1146
RVTIS**K**D**N**SKNQFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1147
RVTIS**K**D**N**SKNQFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1148
RVTIS**K**D**N**SKNQFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1149
RVTIS**K**DTSK**S**Q**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	1150
RVTIS**K**DTSK**S**Q**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	1151
RVTIS**K**DTSK**S**Q**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	1152

RVTIS**K**DTSK**S**Q**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	1153
RVTIS**K**DTSK**S**Q**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	1154
RVTIS**K**DTSK**S**Q**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	1155
RVTIS**K**DTSK**S**Q**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	1156
RVTIS**K**DTSK**S**Q**V**SLKLSS**LQ**AADTAVYYCAR	1C1	1157
RVTIS**K**DTSK**S**Q**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	1158
RVTIS**K**DTSK**S**Q**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1159
RVTIS**K**DTSK**S**QFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	1160
RVTIS**K**DTSK**S**QFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1161
RVTIS**K**DTSK**S**QFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1162
RVTIS**K**DTSK**S**QFS**F**KLSS**LQ**AADTAVYYCAR	1C1	1163
RVTIS**K**DTSK**S**QFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1164
RVTIS**K**DTSK**S**QFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1165
RVTIS**K**DTSK**S**QFSLK**M**SS**LQ**AADTAVYYCAR	1C1	1166
RVTIS**K**DTSK**S**QFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1167
RVTIS**K**DTSK**S**QFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1168
RVTIS**K**DTSK**S**QFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1169
RVTIS**K**DTSKNQ**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1170
RVTIS**K**DTSKNQ**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1171
RVTIS**K**DTSKNQ**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1172
RVTIS**K**DTSKNQ**V**S**F**KLSS**LQ**AADTAVYYCAR	1C1	1173
RVTIS**K**DTSKNQ**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1174
RVTIS**K**DTSKNQ**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1175
RVTIS**K**DTSKNQ**V**SLK**M**SS**LQ**AADTAVYYCAR	1C1	1176
RVTIS**K**DTSKNQ**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1177
RVTIS**K**DTSKNQ**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1178
RVTIS**K**DTSKNQ**V**SLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1179
RVTIS**K**DTSKNQFS**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1180
RVTIS**K**DTSKNQFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1181
RVTIS**K**DTSKNQFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1182
RVTIS**K**DTSKNQFS**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1183

RVTIS**K**DTSKNQFSLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1184
RVTISVD**N**SK**S**Q**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	1185
RVTISVD**N**SK**S**Q**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	1186
RVTISVD**N**SK**S**Q**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	1187
RVTISVD**N**SK**S**Q**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	1188
RVTISVD**N**SK**S**Q**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	1189
RVTISVD**N**SK**S**Q**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	1190
RVTISVD**N**SK**S**Q**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	1191
RVTISVD**N**SK**S**Q**V**SLKLSS**LQ**AADTAVYYCAR	1C1	1192
RVTISVD**N**SK**S**Q**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	1193
RVTISVD**N**SK**S**Q**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1194
RVTISVD**N**SK**S**QFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	1195
RVTISVD**N**SK**S**QFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1196
RVTISVD**N**SK**S**QFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1197
RVTISVD**N**SK**S**QFS**F**KLSS**LQ**AADTAVYYCAR	1C1	1198
RVTISVD**N**SK**S**QFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1199
RVTISVD**N**SK**S**QFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1200
RVTISVD**N**SK**S**QFSLK**M**SS**LQ**AADTAVYYCAR	1C1	1201
RVTISVD**N**SK**S**QFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1202
RVTISVD**N**SK**S**QFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1203
RVTISVD**N**SK**S**QFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1204
RVTISVD**N**SKNQ**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1205
RVTISVD**N**SKNQ**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1206
RVTISVD**N**SKNQ**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1207
RVTISVD**N**SKNQ**V**S**F**KLSS**LQ**AADTAVYYCAR	1C1	1208
RVTISVD**N**SKNQ**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1209
RVTISVD**N**SKNQ**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1210
RVTISVD**N**SKNQ**V**SLK**M**SS**LQ**AADTAVYYCAR	1C1	1211
RVTISVD**N**SKNQ**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1212
RVTISVD**N**SKNQ**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1213
RVTISVD**N**SKNQ**V**SLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1214

RVTISVD**N**SKNQFS**F**K**M**SS**L**Q**Q**AADTAVYYCAR	1C1	1215
RVTISVD**N**SKNQFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1216
RVTISVD**N**SKNQFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1217
RVTISVD**N**SKNQFS**F**KLSS**L**Q**Q**AQDTAVYYCAR	1C1	1218
RVTISVD**N**SKNQFSLK**M**SS**L**Q**Q**AQDTAVYYCAR	1C1	1219
RVTISVDTSK**S**Q**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1220
RVTISVDTSK**S**Q**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1221
RVTISVDTSK**S**Q**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1222
RVTISVDTSK**S**Q**V**S**F**KLSS**L**Q**Q**AADTAVYYCAR	1C1	1223
RVTISVDTSK**S**Q**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1224
RVTISVDTSK**S**Q**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1225
RVTISVDTSK**S**Q**V**SLK**M**SS**L**Q**Q**AADTAVYYCAR	1C1	1226
RVTISVDTSK**S**Q**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1227
RVTISVDTSK**S**Q**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1228
RVTISVDTSK**S**Q**V**SLKLSS**L**Q**Q**AQDTAVYYCAR	1C1	1229
RVTISVDTSK**S**QFS**F**K**M**SS**L**Q**Q**AADTAVYYCAR	1C1	1230
RVTISVDTSK**S**QFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1231
RVTISVDTSK**S**QFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1232
RVTISVDTSK**S**QFS**F**KLSS**L**Q**Q**AQDTAVYYCAR	1C1	1233
RVTISVDTSK**S**QFSLK**M**SS**L**Q**Q**AQDTAVYYCAR	1C1	1234
RVTISVDTSKNQ**V**S**F**K**M**SS**L**Q**Q**AADTAVYYCAR	1C1	1235
RVTISVDTSKNQ**V**S**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1236
RVTISVDTSKNQ**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1237
RVTISVDTSKNQ**V**S**F**KLSS**L**Q**Q**AQDTAVYYCAR	1C1	1238
RVTISVDTSKNQ**V**SLK**M**SS**L**Q**Q**AQDTAVYYCAR	1C1	1239
RVTISVDTSKNQFS**F**K**M**SS**L**Q**Q**AQDTAVYYCAR	1C1	1240
R**L**TIS**K**D**N**SK**S**Q**V**S**F**KLSSVTAADTAVYYCAR	1C1	1241
R**L**TIS**K**D**N**SK**S**Q**V**SLK**M**SSVTAADTAVYYCAR	1C1	1242
R**L**TIS**K**D**N**SK**S**Q**V**SLKLSS**L**TAADTAVYYCAR	1C1	1243
R**L**TIS**K**D**N**SK**S**Q**V**SLKLSSV**Q**AADTAVYYCAR	1C1	1244
R**L**TIS**K**D**N**SK**S**Q**V**SLKLSSVTA**Q**DTAVYYCAR	1C1	1245

R**L**TIS**K**D**N**SK**S**QFS**F**K**M**SSVTAADTAVYYCAR	1C1	1246
R**L**TIS**K**D**N**SK**S**QFS**F**KLSS**L**TAADTAVYYCAR	1C1	1247
R**L**TIS**K**D**N**SK**S**QFS**F**KLSSV**Q**AADTAVYYCAR	1C1	1248
R**L**TIS**K**D**N**SK**S**QFS**F**KLSSVTA**Q**DTAVYYCAR	1C1	1249
R**L**TIS**K**D**N**SK**S**QFSLK**M**SS**L**TAADTAVYYCAR	1C1	1250
R**L**TIS**K**D**N**SK**S**QFSLK**M**SSV**Q**AADTAVYYCAR	1C1	1251
R**L**TIS**K**D**N**SK**S**QFSLK**M**SSVTA**Q**DTAVYYCAR	1C1	1252
R**L**TIS**K**D**N**SK**S**QFSLKLSS**LQ**AADTAVYYCAR	1C1	1253
R**L**TIS**K**D**N**SK**S**QFSLKLSS**L**TA**Q**DTAVYYCAR	1C1	1254
R**L**TIS**K**D**N**SK**S**QFSLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1255
R**L**TIS**K**D**N**SKNQ**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	1256
R**L**TIS**K**D**N**SKNQ**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	1257
R**L**TIS**K**D**N**SKNQ**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	1258
R**L**TIS**K**D**N**SKNQ**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	1259
R**L**TIS**K**D**N**SKNQ**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	1260
R**L**TIS**K**D**N**SKNQ**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	1261
R**L**TIS**K**D**N**SKNQ**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	1262
R**L**TIS**K**D**N**SKNQ**V**SLKLSS**LQ**AADTAVYYCAR	1C1	1263
R**L**TIS**K**D**N**SKNQ**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	1264
R**L**TIS**K**D**N**SKNQ**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1265
R**L**TIS**K**D**N**SKNQFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	1266
R**L**TIS**K**D**N**SKNQFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1267
R**L**TIS**K**D**N**SKNQFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1268
R**L**TIS**K**D**N**SKNQFS**F**KLSS**LQ**AADTAVYYCAR	1C1	1269
R**L**TIS**K**D**N**SKNQFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1270
R**L**TIS**K**D**N**SKNQFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1271
R**L**TIS**K**D**N**SKNQFSLK**M**SS**LQ**AADTAVYYCAR	1C1	1272
R**L**TIS**K**D**N**SKNQFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1273
R**L**TIS**K**D**N**SKNQFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1274
R**L**TIS**K**D**N**SKNQFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1275
R**L**TIS**K**DTSK**S**Q**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	1276

R**L**TIS**K**DTSK**S**Q**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	1277
R**L**TIS**K**DTSK**S**Q**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	1278
R**L**TIS**K**DTSK**S**Q**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	1279
R**L**TIS**K**DTSK**S**Q**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	1280
R**L**TIS**K**DTSK**S**Q**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	1281
R**L**TIS**K**DTSK**S**Q**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	1282
R**L**TIS**K**DTSK**S**Q**V**SLKLSS**LQ**AADTAVYYCAR	1C1	1283
R**L**TIS**K**DTSK**S**Q**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	1284
R**L**TIS**K**DTSK**S**Q**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1285
R**L**TIS**K**DTSK**S**QFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	1286
R**L**TIS**K**DTSK**S**QFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1287
R**L**TIS**K**DTSK**S**QFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1288
R**L**TIS**K**DTSK**S**QFS**F**KLSS**LQ**AADTAVYYCAR	1C1	1289
R**L**TIS**K**DTSK**S**QFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1290
R**L**TIS**K**DTSK**S**QFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1291
R**L**TIS**K**DTSK**S**QFSLK**M**SS**LQ**AADTAVYYCAR	1C1	1292
R**L**TIS**K**DTSK**S**QFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1293
R**L**TIS**K**DTSK**S**QFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1294
R**L**TIS**K**DTSK**S**QFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1295
R**L**TIS**K**DTSKNQ**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1296
R**L**TIS**K**DTSKNQ**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1297
R**L**TIS**K**DTSKNQ**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1298
R**L**TIS**K**DTSKNQ**V**S**F**KLSS**LQ**AADTAVYYCAR	1C1	1299
R**L**TIS**K**DTSKNQ**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1300
R**L**TIS**K**DTSKNQ**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1301
R**L**TIS**K**DTSKNQ**V**SLK**M**SS**LQ**AADTAVYYCAR	1C1	1302
R**L**TIS**K**DTSKNQ**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1303
R**L**TIS**K**DTSKNQ**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1304
R**L**TIS**K**DTSKNQ**V**SLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1305
R**L**TIS**K**DTSKNQFS**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1306
R**L**TIS**K**DTSKNQFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1307

R**L**TIS**K**DTSKNQFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1308
R**L**TIS**K**DTSKNQFS**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1309
R**L**TIS**K**DTSKNQFSLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1310
R**L**TISVD**N**SK**S**Q**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	1311
R**L**TISVD**N**SK**S**Q**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	1312
R**L**TISVD**N**SK**S**Q**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	1313
R**L**TISVD**N**SK**S**Q**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	1314
R**L**TISVD**N**SK**S**Q**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	1315
R**L**TISVD**N**SK**S**Q**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	1316
R**L**TISVD**N**SK**S**Q**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	1317
R**L**TISVD**N**SK**S**Q**V**SLKLSS**LQ**AADTAVYYCAR	1C1	1318
R**L**TISVD**N**SK**S**Q**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	1319
R**L**TISVD**N**SK**S**Q**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1320
R**L**TISVD**N**SK**S**QFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	1321
R**L**TISVD**N**SK**S**QFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1322
R**L**TISVD**N**SK**S**QFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1323
R**L**TISVD**N**SK**S**QFS**F**KLSS**LQ**AADTAVYYCAR	1C1	1324
R**L**TISVD**N**SK**S**QFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1325
R**L**TISVD**N**SK**S**QFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1326
R**L**TISVD**N**SK**S**QFSLK**M**SS**LQ**AADTAVYYCAR	1C1	1327
R**L**TISVD**N**SK**S**QFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1328
R**L**TISVD**N**SK**S**QFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1329
R**L**TISVD**N**SK**S**QFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1330
R**L**TISVD**N**SKNQ**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1331
R**L**TISVD**N**SKNQ**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1332
R**L**TISVD**N**SKNQ**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1333
R**L**TISVD**N**SKNQ**V**S**F**KLSS**LQ**AADTAVYYCAR	1C1	1334
R**L**TISVD**N**SKNQ**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1335
R**L**TISVD**N**SKNQ**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1336
R**L**TISVD**N**SKNQ**V**SLK**M**SS**LQ**AADTAVYYCAR	1C1	1337
R**L**TISVD**N**SKNQ**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1338

R**L**TISVD**N**SKNQ**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1339
R**L**TISVD**N**SKNQ**V**SLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1340
R**L**TISVD**N**SKNQFS**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1341
R**L**TISVD**N**SKNQFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1342
R**L**TISVD**N**SKNQFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1343
R**L**TISVD**N**SKNQFS**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1344
R**L**TISVD**N**SKNQFSLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1345
R**L**TISVDTSK**S**Q**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1346
R**L**TISVDTSK**S**Q**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1347
R**L**TISVDTSK**S**Q**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1348
R**L**TISVDTSK**S**Q**V**S**F**KLSS**LQ**AADTAVYYCAR	1C1	1349
R**L**TISVDTSK**S**Q**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1350
R**L**TISVDTSK**S**Q**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1351
R**L**TISVDTSK**S**Q**V**SLK**M**SS**LQ**AADTAVYYCAR	1C1	1352
R**L**TISVDTSK**S**Q**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1353
R**L**TISVDTSK**S**Q**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1354
R**L**TISVDTSK**S**Q**V**SLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1355
R**L**TISVDTSK**S**QFS**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1356
R**L**TISVDTSK**S**QFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1357
R**L**TISVDTSK**S**QFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1358
R**L**TISVDTSK**S**QFS**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1359
R**L**TISVDTSK**S**QFSLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1360
R**L**TISVDTSKNQ**V**S**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1361
R**L**TISVDTSKNQ**V**S**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1362
R**L**TISVDTSKNQ**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1363
R**L**TISVDTSKNQ**V**S**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1364
R**L**TISVDTSKNQ**V**SLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1365
R**L**TISVDTSKNQFS**F**K**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1366
RVTIS**K**D**N**SK**S**Q**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	1367
RVTIS**K**D**N**SK**S**Q**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	1368
RVTIS**K**D**N**SK**S**Q**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	1369

RVTIS**K**D**N**SK**S**Q**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	1370
RVTIS**K**D**N**SK**S**Q**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	1371
RVTIS**K**D**N**SK**S**Q**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	1372
RVTIS**K**D**N**SK**S**Q**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	1373
RVTIS**K**D**N**SK**S**Q**V**SLKLSS**LQ**AADTAVYYCAR	1C1	1374
RVTIS**K**D**N**SK**S**Q**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	1375
RVTIS**K**D**N**SK**S**Q**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1376
RVTIS**K**D**N**SK**S**QFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	1377
RVTIS**K**D**N**SK**S**QFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1378
RVTIS**K**D**N**SK**S**QFS**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1379
RVTIS**K**D**N**SK**S**QFS**F**KLSS**LQ**AADTAVYYCAR	1C1	1380
RVTIS**K**D**N**SK**S**QFS**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1381
RVTIS**K**D**N**SK**S**QFS**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1382
RVTIS**K**D**N**SK**S**QFSLK**M**SS**LQ**AADTAVYYCAR	1C1	1383
RVTIS**K**D**N**SK**S**QFSLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1384
RVTIS**K**D**N**SK**S**QFSLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1385
RVTIS**K**D**N**SK**S**QFSLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1386
RVTIS**K**D**N**SKNQ**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1387
RVTIS**K**D**N**SKNQ**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1388
RVTIS**K**D**N**SKNQ**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1389
RVTIS**K**D**N**SKNQ**V**S**F**KLSS**LQ**AADTAVYYCAR	1C1	1390
RVTIS**K**D**N**SKNQ**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1391
RVTIS**K**D**N**SKNQ**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1392
RVTIS**K**D**N**SKNQ**V**SLK**M**SS**LQ**AADTAVYYCAR	1C1	1393
RVTIS**K**D**N**SKNQ**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1394
RVTIS**K**D**N**SKNQ**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1395
RVTIS**K**D**N**SKNQ**V**SLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1396
RVTIS**K**D**N**SKNQFS**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1397
RVTIS**K**D**N**SKNQFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1398
RVTIS**K**D**N**SKNQFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1399
RVTIS**K**D**N**SKNQFS**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1400

RVTIS**K**D**N**SKNQFSLK**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1401
RVTIS**K**DTSK**S**Q**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1402
RVTIS**K**DTSK**S**Q**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1403
RVTIS**K**DTSK**S**Q**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1404
RVTIS**K**DTSK**S**Q**V**S**F**KLSS**L**Q**A**ADTAVYYCAR	1C1	1405
RVTIS**K**DTSK**S**Q**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1406
RVTIS**K**DTSK**S**Q**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1407
RVTIS**K**DTSK**S**Q**V**SLK**M**SS**L**Q**A**ADTAVYYCAR	1C1	1408
RVTIS**K**DTSK**S**Q**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1409
RVTIS**K**DTSK**S**Q**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1410
RVTIS**K**DTSK**S**Q**V**SLKLSS**L**Q**A**Q**D**TAVYYCAR	1C1	1411
RVTIS**K**DTSK**S**QFS**F**K**M**SS**L**Q**A**ADTAVYYCAR	1C1	1412
RVTIS**K**DTSK**S**QFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1413
RVTIS**K**DTSK**S**QFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1414
RVTIS**K**DTSK**S**QFS**F**KLSS**L**Q**A**Q**D**TAVYYCAR	1C1	1415
RVTIS**K**DTSK**S**QFSLK**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1416
RVTIS**K**DTSKNQ**V**S**F**K**M**SS**L**Q**A**ADTAVYYCAR	1C1	1417
RVTIS**K**DTSKNQ**V**S**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1418
RVTIS**K**DTSKNQ**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1419
RVTIS**K**DTSKNQ**V**S**F**KLSS**L**Q**A**Q**D**TAVYYCAR	1C1	1420
RVTIS**K**DTSKNQ**V**SLK**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1421
RVTIS**K**DTSKNQFS**F**K**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1422
RVTISVD**N**SK**S**Q**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1423
RVTISVD**N**SK**S**Q**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1424
RVTISVD**N**SK**S**Q**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1425
RVTISVD**N**SK**S**Q**V**S**F**KLSS**L**Q**A**ADTAVYYCAR	1C1	1426
RVTISVD**N**SK**S**Q**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1427
RVTISVD**N**SK**S**Q**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1428
RVTISVD**N**SK**S**Q**V**SLK**M**SS**L**Q**A**ADTAVYYCAR	1C1	1429
RVTISVD**N**SK**S**Q**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1430
RVTISVD**N**SK**S**Q**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1431

RVTISVD**N**SK**S**Q**V**SLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1432
RVTISVD**N**SK**S**QFS**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1433
RVTISVD**N**SK**S**QFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1434
RVTISVD**N**SK**S**QFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1435
RVTISVD**N**SK**S**QFS**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1436
RVTISVD**N**SK**S**QFSLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1437
RVTISVD**N**SKNQ**V**S**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1438
RVTISVD**N**SKNQ**V**S**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1439
RVTISVD**N**SKNQ**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1440
RVTISVD**N**SKNQ**V**S**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1441
RVTISVD**N**SKNQ**V**SLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1442
RVTISVD**N**SKNQFS**F**K**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1443
RVTISVDTSK**S**Q**V**S**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1444
RVTISVDTSK**S**Q**V**S**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1445
RVTISVDTSK**S**Q**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1446
RVTISVDTSK**S**Q**V**S**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1447
RVTISVDTSK**S**Q**V**SLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1448
RVTISVDTSK**S**QFS**F**K**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1449
RVTISVDTSKNQ**V**S**F**K**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1450
R**L**TIS**K**D**N**SK**S**Q**V**S**F**K**M**SSVTAADTAVYYCAR	1C1	1451
R**L**TIS**K**D**N**SK**S**Q**V**S**F**KLSS**L**TAADTAVYYCAR	1C1	1452
R**L**TIS**K**D**N**SK**S**Q**V**S**F**KLSSV**Q**AADTAVYYCAR	1C1	1453
R**L**TIS**K**D**N**SK**S**Q**V**S**F**KLSSVTA**Q**DTAVYYCAR	1C1	1454
R**L**TIS**K**D**N**SK**S**Q**V**SLK**M**SS**L**TAADTAVYYCAR	1C1	1455
R**L**TIS**K**D**N**SK**S**Q**V**SLK**M**SSV**Q**AADTAVYYCAR	1C1	1456
R**L**TIS**K**D**N**SK**S**Q**V**SLK**M**SSVTA**Q**DTAVYYCAR	1C1	1457
R**L**TIS**K**D**N**SK**S**Q**V**SLKLSS**LQ**AADTAVYYCAR	1C1	1458
R**L**TIS**K**D**N**SK**S**Q**V**SLKLSS**L**TA**Q**DTAVYYCAR	1C1	1459
R**L**TIS**K**D**N**SK**S**Q**V**SLKLSSV**Q**A**Q**DTAVYYCAR	1C1	1460
R**L**TIS**K**D**N**SK**S**QFS**F**K**M**SS**L**TAADTAVYYCAR	1C1	1461
R**L**TIS**K**D**N**SK**S**QFS**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1462

RLTISKDNSKSQFSFKMSSVTAQDTAVYYCAR	1C1	1463
RLTISKDNSKSQFSFKLSSLQAADTAVYYCAR	1C1	1464
RLTISKDNSKSQFSFKLSSLTAQDTAVYYCAR	1C1	1465
RLTISKDNSKSQFSFKLSSVQAQDTAVYYCAR	1C1	1466
RLTISKDNSKSQFSLKMSSLQAADTAVYYCAR	1C1	1467
RLTISKDNSKSQFSLKMSSLTAQDTAVYYCAR	1C1	1468
RLTISKDNSKSQFSLKMSSVQAQDTAVYYCAR	1C1	1469
RLTISKDNSKSQFSLKLSSLQAQDTAVYYCAR	1C1	1470
RLTISKDNSKNQVSFKMSSLTAADTAVYYCAR	1C1	1471
RLTISKDNSKNQVSFKMSSVQAADTAVYYCAR	1C1	1472
RLTISKDNSKNQVSFKMSSVTAQDTAVYYCAR	1C1	1473
RLTISKDNSKNQVSFKLSSLQAADTAVYYCAR	1C1	1474
RLTISKDNSKNQVSFKLSSLTAQDTAVYYCAR	1C1	1475
RLTISKDNSKNQVSFKLSSVQAQDTAVYYCAR	1C1	1476
RLTISKDNSKNQVSLKMSSLQAADTAVYYCAR	1C1	1477
RLTISKDNSKNQVSLKMSSLTAQDTAVYYCAR	1C1	1478
RLTISKDNSKNQVSLKMSSVQAQDTAVYYCAR	1C1	1479
RLTISKDNSKNQVSLKLSSLQAQDTAVYYCAR	1C1	1480
RLTISKDNSKNQFSFKMSSLQAADTAVYYCAR	1C1	1481
RLTISKDNSKNQFSFKMSSLTAQDTAVYYCAR	1C1	1482
RLTISKDNSKNQFSFKMSSVQAQDTAVYYCAR	1C1	1483
RLTISKDNSKNQFSFKLSSLQAQDTAVYYCAR	1C1	1484
RLTISKDNSKNQFSLKMSSLQAQDTAVYYCAR	1C1	1485
RLTISKDTSKSQVSFKMSSLTAADTAVYYCAR	1C1	1486
RLTISKDTSKSQVSFKMSSVQAADTAVYYCAR	1C1	1487
RLTISKDTSKSQVSFKMSSVTAQDTAVYYCAR	1C1	1488
RLTISKDTSKSQVSFKLSSLQAADTAVYYCAR	1C1	1489
RLTISKDTSKSQVSFKLSSLTAQDTAVYYCAR	1C1	1490
RLTISKDTSKSQVSFKLSSVQAQDTAVYYCAR	1C1	1491
RLTISKDTSKSQVSLKMSSLQAADTAVYYCAR	1C1	1492
RLTISKDTSKSQVSLKMSSLTAQDTAVYYCAR	1C1	1493

R**L**TIS**K**DTSK**S**Q**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1494
R**L**TIS**K**DTSK**S**Q**V**SLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1495
R**L**TIS**K**DTSK**S**QFS**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1496
R**L**TIS**K**DTSK**S**QFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1497
R**L**TIS**K**DTSK**S**QFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1498
R**L**TIS**K**DTSK**S**QFS**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1499
R**L**TIS**K**DTSK**S**QFSLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1500
R**L**TIS**K**DTSKNQ**V**S**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1501
R**L**TIS**K**DTSKNQ**V**S**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1502
R**L**TIS**K**DTSKNQ**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1503
R**L**TIS**K**DTSKNQ**V**S**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1504
R**L**TIS**K**DTSKNQ**V**SLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1505
R**L**TIS**K**DTSKNQFS**F**K**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1506
R**L**TISVD**N**SK**S**Q**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1507
R**L**TISVD**N**SK**S**Q**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1508
R**L**TISVD**N**SK**S**Q**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1509
R**L**TISVD**N**SK**S**Q**V**S**F**KLSS**LQ**AADTAVYYCAR	1C1	1510
R**L**TISVD**N**SK**S**Q**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1511
R**L**TISVD**N**SK**S**Q**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1512
R**L**TISVD**N**SK**S**Q**V**SLK**M**SS**LQ**AADTAVYYCAR	1C1	1513
R**L**TISVD**N**SK**S**Q**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1514
R**L**TISVD**N**SK**S**Q**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1515
R**L**TISVD**N**SK**S**Q**V**SLKLSS**LQ**A**Q**DTAVYYCAR	1C1	1516
R**L**TISVD**N**SK**S**QFS**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1517
R**L**TISVD**N**SK**S**QFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1518
R**L**TISVD**N**SK**S**QFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1519
R**L**TISVD**N**SK**S**QFS**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1520
R**L**TISVD**N**SK**S**QFSLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1521
R**L**TISVD**N**SKNQ**V**S**F**K**M**SS**LQ**AADTAVYYCAR	1C1	1522
R**L**TISVD**N**SKNQ**V**S**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1523
R**L**TISVD**N**SKNQ**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1524

R**L**TISVD**N**SKNQ**V**S**F**KLSS**L**Q**A**QDTAVYYCAR	1C1	1525
R**L**TISVD**N**SKNQ**V**SLK**M**SS**L**Q**A**QDTAVYYCAR	1C1	1526
R**L**TISVD**N**SKNQFS**F**K**M**SS**L**Q**A**QDTAVYYCAR	1C1	1527
R**L**TISVDTSK**S**Q**V**S**F**K**M**SS**L**Q**A**ADTAVYYCAR	1C1	1528
R**L**TISVDTSK**S**Q**V**S**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1529
R**L**TISVDTSK**S**Q**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1530
R**L**TISVDTSK**S**Q**V**S**F**KLSS**L**Q**A**QDTAVYYCAR	1C1	1531
R**L**TISVDTSK**S**Q**V**SLK**M**SS**L**Q**A**QDTAVYYCAR	1C1	1532
R**L**TISVDTSK**S**QFS**F**K**M**SS**L**Q**A**QDTAVYYCAR	1C1	1533
R**L**TISVDTSKNQ**V**S**F**K**M**SS**L**Q**A**QDTAVYYCAR	1C1	1534
RVTIS**K**D**N**SK**S**Q**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1535
RVTIS**K**D**N**SK**S**Q**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1536
RVTIS**K**D**N**SK**S**Q**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1537
RVTIS**K**D**N**SK**S**Q**V**S**F**KLSS**L**Q**A**ADTAVYYCAR	1C1	1538
RVTIS**K**D**N**SK**S**Q**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1539
RVTIS**K**D**N**SK**S**Q**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1540
RVTIS**K**D**N**SK**S**Q**V**SLK**M**SS**L**Q**A**ADTAVYYCAR	1C1	1541
RVTIS**K**D**N**SK**S**Q**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1542
RVTIS**K**D**N**SK**S**Q**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1543
RVTIS**K**D**N**SK**S**Q**V**SLKLSS**L**Q**A**QDTAVYYCAR	1C1	1544
RVTIS**K**D**N**SK**S**QFS**F**K**M**SS**L**Q**A**ADTAVYYCAR	1C1	1545
RVTIS**K**D**N**SK**S**QFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1546
RVTIS**K**D**N**SK**S**QFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1547
RVTIS**K**D**N**SK**S**QFS**F**KLSS**L**Q**A**QDTAVYYCAR	1C1	1548
RVTIS**K**D**N**SK**S**QFSLK**M**SS**L**Q**A**QDTAVYYCAR	1C1	1549
RVTIS**K**D**N**SKNQ**V**S**F**K**M**SS**L**Q**A**ADTAVYYCAR	1C1	1550
RVTIS**K**D**N**SKNQ**V**S**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1551
RVTIS**K**D**N**SKNQ**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1552
RVTIS**K**D**N**SKNQ**V**S**F**KLSS**L**Q**A**QDTAVYYCAR	1C1	1553
RVTIS**K**D**N**SKNQ**V**SLK**M**SS**L**Q**A**QDTAVYYCAR	1C1	1554
RVTIS**K**D**N**SKNQFS**F**K**M**SS**L**Q**A**QDTAVYYCAR	1C1	1555

RVTIS**K**DTSK**S**Q**V**S**F**K**M**SS**L**Q**A**ADTAVYYCAR	1C1	1556
RVTIS**K**DTSK**S**Q**V**S**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1557
RVTIS**K**DTSK**S**Q**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1558
RVTIS**K**DTSK**S**Q**V**S**F**KLSS**L**Q**A**Q**D**TAVYYCAR	1C1	1559
RVTIS**K**DTSK**S**Q**V**SLK**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1560
RVTIS**K**DTSK**S**QFS**F**K**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1561
RVTIS**K**DTSKNQ**V**S**F**K**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1562
RVTISVD**N**SK**S**Q**V**S**F**K**M**SS**L**Q**A**ADTAVYYCAR	1C1	1563
RVTISVD**N**SK**S**Q**V**S**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1564
RVTISVD**N**SK**S**Q**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1565
RVTISVD**N**SK**S**Q**V**S**F**KLSS**L**Q**A**Q**D**TAVYYCAR	1C1	1566
RVTISVD**N**SK**S**Q**V**SLK**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1567
RVTISVD**N**SK**S**QFS**F**K**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1568
RVTISVD**N**SKNQ**V**S**F**K**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1569
RVTISVDTSK**S**Q**V**S**F**K**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1570
R**L**TIS**K**D**N**SK**S**Q**V**S**F**K**M**SS**L**TAADTAVYYCAR	1C1	1571
R**L**TIS**K**D**N**SK**S**Q**V**S**F**K**M**SSV**Q**AADTAVYYCAR	1C1	1572
R**L**TIS**K**D**N**SK**S**Q**V**S**F**K**M**SSVTA**Q**DTAVYYCAR	1C1	1573
R**L**TIS**K**D**N**SK**S**Q**V**S**F**KLSS**L**Q**A**ADTAVYYCAR	1C1	1574
R**L**TIS**K**D**N**SK**S**Q**V**S**F**KLSS**L**TA**Q**DTAVYYCAR	1C1	1575
R**L**TIS**K**D**N**SK**S**Q**V**S**F**KLSSV**Q**A**Q**DTAVYYCAR	1C1	1576
R**L**TIS**K**D**N**SK**S**Q**V**SLK**M**SS**L**Q**A**ADTAVYYCAR	1C1	1577
R**L**TIS**K**D**N**SK**S**Q**V**SLK**M**SS**L**TA**Q**DTAVYYCAR	1C1	1578
R**L**TIS**K**D**N**SK**S**Q**V**SLK**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1579
R**L**TIS**K**D**N**SK**S**Q**V**SLKLSS**L**Q**A**Q**D**TAVYYCAR	1C1	1580
R**L**TIS**K**D**N**SK**S**QFS**F**K**M**SS**L**Q**A**ADTAVYYCAR	1C1	1581
R**L**TIS**K**D**N**SK**S**QFS**F**K**M**SS**L**TA**Q**DTAVYYCAR	1C1	1582
R**L**TIS**K**D**N**SK**S**QFS**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1583
R**L**TIS**K**D**N**SK**S**QFS**F**KLSS**L**Q**A**Q**D**TAVYYCAR	1C1	1584
R**L**TIS**K**D**N**SK**S**QFSLK**M**SS**L**Q**A**Q**D**TAVYYCAR	1C1	1585
R**L**TIS**K**D**N**SKNQ**V**S**F**K**M**SS**L**Q**A**ADTAVYYCAR	1C1	1586

RLTISKDNSKNQVSFKMSSLTAQDTAVYYCAR	1C1	1587
RLTISKDNSKNQVSFKMSSVQAQDTAVYYCAR	1C1	1588
RLTISKDNSKNQVSFKLSSLQAQDTAVYYCAR	1C1	1589
RLTISKDNSKNQVSLKMSSLQAQDTAVYYCAR	1C1	1590
RLTISKDNSKNQFSFKMSSLQAQDTAVYYCAR	1C1	1591
RLTISKDTSKSQVSFKMSSLQAADTAVYYCAR	1C1	1592
RLTISKDTSKSQVSFKMSSLTAQDTAVYYCAR	1C1	1593
RLTISKDTSKSQVSFKMSSVQAQDTAVYYCAR	1C1	1594
RLTISKDTSKSQVSFKLSSLQAQDTAVYYCAR	1C1	1595
RLTISKDTSKSQVSLKMSSLQAQDTAVYYCAR	1C1	1596
RLTISKDTSKSQFSFKMSSLQAQDTAVYYCAR	1C1	1597
RLTISKDTSKNQVSFKMSSLQAQDTAVYYCAR	1C1	1598
RLTISVDNSKSQVSFKMSSLQAADTAVYYCAR	1C1	1599
RLTISVDNSKSQVSFKMSSLTAQDTAVYYCAR	1C1	1600
RLTISVDNSKSQVSFKMSSVQAQDTAVYYCAR	1C1	1601
RLTISVDNSKSQVSFKLSSLQAQDTAVYYCAR	1C1	1602
RLTISVDNSKSQVSLKMSSLQAQDTAVYYCAR	1C1	1603
RLTISVDNSKSQFSFKMSSLQAQDTAVYYCAR	1C1	1604
RLTISVDNSKNQVSFKMSSLQAQDTAVYYCAR	1C1	1605
RLTISVDTSKSQVSFKMSSLQAQDTAVYYCAR	1C1	1606
RVTISKDNSKSQVSFKMSSLQAADTAVYYCAR	1C1	1607
RVTISKDNSKSQVSFKMSSLTAQDTAVYYCAR	1C1	1608
RVTISKDNSKSQVSFKMSSVQAQDTAVYYCAR	1C1	1609
RVTISKDNSKSQVSFKLSSLQAQDTAVYYCAR	1C1	1610
RVTISKDNSKSQVSLKMSSLQAQDTAVYYCAR	1C1	1611
RVTISKDNSKSQFSFKMSSLQAQDTAVYYCAR	1C1	1612
RVTISKDNSKNQVSFKMSSLQAQDTAVYYCAR	1C1	1613
RVTISKDTSKSQVSFKMSSLQAQDTAVYYCAR	1C1	1614
RVTISVDNSKSQVSFKMSSLQAQDTAVYYCAR	1C1	1615
RLTISKDNSKSQVSFKMSSLQAADTAVYYCAR	1C1	1616
RLTISKDNSKSQVSFKMSSLTAQDTAVYYCAR	1C1	1617

R**L**TIS**K**D**N**SK**S**Q**V**S**F**K**M**SSV**Q**A**Q**DTAVYYCAR	1C1	1618
R**L**TIS**K**D**N**SK**S**Q**V**S**F**KLSS**LQ**A**Q**DTAVYYCAR	1C1	1619
R**L**TIS**K**D**N**SK**S**Q**V**SLK**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1620
R**L**TIS**K**D**N**SK**S**QFS**F**K**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1621
R**L**TIS**K**D**N**SKNQ**V**S**F**K**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1622
R**L**TIS**K**DTSK**S**Q**V**S**F**K**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1623
R**L**TISVD**N**SK**S**Q**V**S**F**K**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1624
RVTIS**K**D**N**SK**S**Q**V**S**F**K**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1625
R**L**TIS**K**D**N**SK**S**Q**V**S**F**K**M**SS**LQ**A**Q**DTAVYYCAR	1C1	1626
RVTISRDTSKNQFSLKLSSVTAADTAVYYCAR	1C1	1627
R**L**TISRDTSKNQFSLKLSSVTAADTAVYYCAR	1C1	1628
RVTISRDTSK**S**QFSLKLSSVTAADTAVYYCAR	1C1	1629
RVTISRDTSKNQ**V**SLKLSSVTAADTAVYYCAR	1C1	1630
RVTISRDTSKNQFS**F**KLSSVTAADTAVYYCAR	1C1	1631
R**L**TISRDTSK**S**QFSLKLSSVTAADTAVYYCAR	1C1	1632
R**L**TISRDTSKNQ**V**SLKLSSVTAADTAVYYCAR	1C1	1633
R**L**TISRDTSKNQFS**F**KLSSVTAADTAVYYCAR	1C1	1634
RVTISRDTSK**S**Q**V**SLKLSSVTAADTAVYYCAR	1C1	1635
RVTISRDTSK**S**QFS**F**KLSSVTAADTAVYYCAR	1C1	1636
RVTISRDTSKNQ**V**S**F**KLSSVTAADTAVYYCAR	1C1	1637
R**L**TISRDTSK**S**Q**V**SLKLSSVTAADTAVYYCAR	1C1	1638
R**L**TISRDTSK**S**QFS**F**KLSSVTAADTAVYYCAR	1C1	1639
R**L**TISRDTSKNQ**V**S**F**KLSSVTAADTAVYYCAR	1C1	1640
RVTISRDTSK**S**Q**V**S**F**KLSSVTAADTAVYYCAR	1C1	1641
R**L**TISRDTSK**S**Q**V**S**F**KLSSVTAADTAVYYCAR	1C1	1642
RVTITADESTSTAYMELSSLRSEDTAVYYCAR	3P10, 5F12, 25M22, 17J16	1643
R**F**TITADESTSTAYMELSSLRSEDTAVYYCAR	3P10	1644
RVT**F**TADESTSTAYMELSSLRSEDTAVYYCAR	3P10	1645
RVTIT**L**DESTSTAYMELSSLRSEDTAVYYCAR	3P10	1646
RVTITADESTSTAYMELS**N**LRSEDTAVYYCAR	3P10	1647
RVTITADESTSTAYMELSSLRSEDTAV**F**YCAR	3P10	1648

R**F**T**F**TADESTSTAYMELSSLRSEDTAVYYCAR	3P10	1649
R**F**TIT**L**DESTSTAYMELSSLRSEDTAVYYCAR	3P10	1650
R**F**TITADESTSTAYMELS**N**LRSEDTAVYYCAR	3P10	1651
R**F**TITADESTSTAYMELSSLRSEDTAV**F**YCAR	3P10	1652
RVT**F**T**L**DESTSTAYMELSSLRSEDTAVYYCAR	3P10	1653
RVT**F**TADESTSTAYMELS**N**LRSEDTAVYYCAR	3P10	1654
RVT**F**TADESTSTAYMELSSLRSEDTAV**F**YCAR	3P10	1655
RVTIT**L**DESTSTAYMELS**N**LRSEDTAVYYCAR	3P10	1656
RVTIT**L**DESTSTAYMELSSLRSEDTAV**F**YCAR	3P10	1657
RVTITADESTSTAYMELS**N**LRSEDTAV**F**YCAR	3P10	1658
R**F**T**F**T**L**DESTSTAYMELSSLRSEDTAVYYCAR	3P10	1659
R**F**T**F**TADESTSTAYMELS**N**LRSEDTAVYYCAR	3P10	1660
R**F**T**F**TADESTSTAYMELSSLRSEDTAV**F**YCAR	3P10	1661
RVT**F**T**L**DESTSTAYMELS**N**LRSEDTAVYYCAR	3P10	1662
RVT**F**T**L**DESTSTAYMELSSLRSEDTAV**F**YCAR	3P10	1663
RVT**F**TADESTSTAYMELS**N**LRSEDTAV**F**YCAR	3P10	1664
RVTIT**L**DESTSTAYMELS**N**LRSEDTAV**F**YCAR	3P10	1665
R**F**T**F**T**L**DESTSTAYMELS**N**LRSEDTAVYYCAR	3P10	1666
R**F**T**F**T**L**DESTSTAYMELSSLRSEDTAV**F**YCAR	3P10	1667
R**F**T**F**TADESTSTAYMELS**N**LRSEDTAV**F**YCAR	3P10	1668
RVT**F**T**L**DESTSTAYMELS**N**LRSEDTAV**F**YCAR	3P10	1669
R**F**T**F**T**L**DESTSTAYMELS**N**LRSEDTAV**F**YCAR	3P10	1670
RVTLTADTSTDTAYMELSSLRSEDTAVYFCAR	3P10	1671
R**F**TLTADTSTDTAYMELSSLRSEDTAVYFCAR	3P10	1672
RVT**F**TADTSTDTAYMELSSLRSEDTAVYFCAR	3P10	1673
RVTLTADTSTDTAY**L**ELSSLRSEDTAVYFCAR	3P10	1674
R**F**T**F**TADTSTDTAYMELSSLRSEDTAVYFCAR	3P10	1675
R**F**TLTADTSTDTAY**L**ELSSLRSEDTAVYFCAR	3P10	1676
RVT**F**TADTSTDTAY**L**ELSSLRSEDTAVYFCAR	3P10	1677
R**F**T**F**TADTSTDTAY**L**ELSSLRSEDTAVYFCAR	3P10	1678
R**A**TITADESTSTAYMELSSLRSEDTAVYYCAR	5F12, 25M22, 17J16	1679

RVT**L**TADESTSTAYMELSSLRSEDTAVYYCAR	5F12, 25M22, 17J16	1680
RVTITAD**K**STSTAYMELSSLRSEDTAVYYCAR	5F12, 25M22	1681
R**A**T**L**TADESTSTAYMELSSLRSEDTAVYYCAR	5F12, 25M22, 17J16	1682
R**A**TITAD**K**STSTAYMELSSLRSEDTAVYYCAR	5F12, 25M22	1683
RVT**L**TAD**K**STSTAYMELSSLRSEDTAVYYCAR	5F12, 25M22	1684
R**A**T**L**TAD**K**STSTAYMELSSLRSEDTAVYYCAR	5F12, 25M22	1685
R**A**TITADESTSTAYMELSSLRSEDTAVYYCAR	17J16	1686
RVTITADES**S**STAYMELSSLRSEDTAVYYCAR	17J16	1687
RVTITADESTSTAY**L**ELSSLRSEDTAVYYCAR	17J16	1688
RVTITADESTSTAYMELS**R**LRSEDTAVYYCAR	17J16	1689
R**A**TITADES**S**STAYMELSSLRSEDTAVYYCAR	17J16	1690
R**A**TITADESTSTAY**L**ELSSLRSEDTAVYYCAR	17J16	1691
R**A**TITADESTSTAYMELS**R**LRSEDTAVYYCAR	17J16	1692
RVT**L**TADES**S**STAYMELSSLRSEDTAVYYCAR	17J16	1693
RVT**L**TADESTSTAY**L**ELSSLRSEDTAVYYCAR	17J16	1694
RVT**L**TADESTSTAYMELS**R**LRSEDTAVYYCAR	17J16	1695
RVTITADES**S**STAY**L**ELSSLRSEDTAVYYCAR	17J16	1696
RVTITADES**S**STAYMELS**R**LRSEDTAVYYCAR	17J16	1697
RVTITADESTSTAY**L**ELS**R**LRSEDTAVYYCAR	17J16	1698
R**A**T**L**TADES**S**STAYMELSSLRSEDTAVYYCAR	17J16	1699
R**A**T**L**TADESTSTAY**L**ELSSLRSEDTAVYYCAR	17J16	1700
R**A**T**L**TADESTSTAYMELS**R**LRSEDTAVYYCAR	17J16	1701
R**A**TITADES**S**STAY**L**ELSSLRSEDTAVYYCAR	17J16	1702
R**A**TITADES**S**STAYMELS**R**LRSEDTAVYYCAR	17J16	1703
R**A**TITADESTSTAY**L**ELS**R**LRSEDTAVYYCAR	17J16	1704
RVT**L**TADES**S**STAY**L**ELSSLRSEDTAVYYCAR	17J16	1705
RVT**L**TADES**S**STAYMELS**R**LRSEDTAVYYCAR	17J16	1706
RVT**L**TADESTSTAY**L**ELS**R**LRSEDTAVYYCAR	17J16	1707
RVTITADES**S**STAY**L**ELS**R**LRSEDTAVYYCAR	17J16	1708
R**A**T**L**TADES**S**STAY**L**ELSSLRSEDTAVYYCAR	17J16	1709
R**A**T**L**TADES**S**STAYMELS**R**LRSEDTAVYYCAR	17J16	1710

R**A**T**L**TADESTSTAY**L**ELS**R**LRSEDTAVYYCAR	17J16	1711
R**A**TITADES**S**STAY**L**ELS**R**LRSEDTAVYYCAR	17J16	1712
RVT**L**TADES**S**STAY**L**ELS**R**LRSEDTAVYYCAR	17J16	1713
R**A**T**L**TADES**S**STAY**L**ELS**R**LRSEDTAVYYCAR	17J16	1714
RVTITRDTSASTAYMELSSLRSEDTAVYYCAR	5F12	1715
R**A**TITRDESASTAYMELSSLRSEDTAVYYCAR	5F12	1716
RVT**L**TRDESASTAYMELSSLRSEDTAVYYCAR	5F12	1717
RVTITRD**K**SASTAYMELSSLRSEDTAVYYCAR	5F12	1718
R**A**T**L**TRDESASTAYMELSSLRSEDTAVYYCAR	5F12	1719
R**A**TITRD**K**SASTAYMELSSLRSEDTAVYYCAR	5F12	1720
RVT**L**TRD**K**SASTAYMELSSLRSEDTAVYYCAR	5F12	1721
R**A**T**L**TRD**K**SASTAYMELSSLRSEDTAVYYCAR	5F12	1722
QVTISADKSISTAYLQWSSLKASDTAMYYCAR	25M22	1723
Q**A**TISADKSISTAYLQWSSLKASDTAMYYCAR	25M22	1724
QVT**L**SADKSISTAYLQWSSLKASDTAMYYCAR	25M22	1725
Q**A**T**L**SADKSISTAYLQWSSLKASDTAMYYCAR	25M22	1726
VH Framework 4 (FR4)		
WGQGTLVTVSS	1C1, 3P10, 5F12	1727
WGQGTTVTVSS	3P10, 25M22, 17J16	1728
VL	**Humanized Clone**	**SEQ ID NO:**
VL Framework 1 (FR1)		
DVVMTQSPLSLPVTLGQPASISC	1C1, 3P10, 5F12, 25M22, 17J16	1729
DVV**L**TQSPLSLPVTLGQPASISC	1C1, 3P10, 5F12, 25M22, 17J16	1730
DVVLTQSPLSLPVTLG**D**PASISC	1C1	1731
DVV**L**TQSPLSLPVTLG**D**PASISC	1C1	1732
D**I**VMTQSPLSLPVTLGQPASISC	3P10, 5F12	1733
D**I**V**L**TQSPLSLPVTLGQPASISC	3P10, 5F12	1734
DV**A**MTQSPLSLPVTLGQPASISC	17J16	1735
DV**AL**TQSPLSLPVTLGQPASISC	17J16	1736
DVVLTQTPLSLPVSPGDQASISC	1C1	1737

D**I**VMTQTPLSLPVSPGDQASISC	1C1	1738
DIV**M**TQTPLSLPVSPGDQASISC	1C1	1739
D**I**V**M**TQTPLSLPVSPGDQASISC	1C1	1740
DIELTQSPASLAVSLGQRATISC	3P10	1741
DI**V**LTQSPASLAVSLGQRATISC	3P10	1742
DIVMTQSPDSLAVSLGERATINC	5F12	1743
DIV**L**TQSPDSLAVSLGERATINC	5F12	1744
DIQMTQSPSSLSASVGDRVTITC	5F12	1745
DIQ**L**TQSPSSLSASVGDRVTITC	5F12	1746
EIVLTQSPATLSLSPGERATLSC	5F12	1747
EIVLTQSPATLS**V**SPGERATLSC	5F12	1748
EIVLTQSPGTLSLSPGERATLSC	25M22	1749
E**V**VLTQSPGTLSLSPGERATLSC	25M22	1750
VL Framework 2 (FR2)		
WFQQRPGQSPRRLIY	1C1, 3P10, 5F12, 25M22, 17J16	1751
W**Y**QQRPGQSPRRLIY	1C1, 5F12, 25M22	1752
WFQQ**K**PGQSPRRLIY	1C1	1753
WFQQRPGQSP**K**RLIY	1C1, 17J16	1754
WFQQRPGQSPR**L**LIY	1C1, 3P10, 5F12, 25M22	1755
W**Y**QQ**K**PGQSPRRLIY	1C1	1756
W**Y**QQRPGQSP**K**RLIY	1C1	1757
W**Y**QQRPGQSPR**L**LIY	1C1, 5F12, 25M22	1758
WFQQ**K**PGQSP**K**RLIY	1C1	1759
WFQQ**K**PGQSPR**L**LIY	1C1	1760
WFQQRPGQSP**KL**LIY	1C1	1761
W**Y**QQ**K**PGQSP**K**RLIY	1C1	1762
W**Y**QQ**K**PGQSPR**L**LIY	1C1	1763
W**Y**QQRPGQSP**KL**LIY	1C1	1764
WFQQ**K**PGQSP**KL**LIY	1C1	1765
W**Y**QQ**K**PGQSP**KL**LIY	1C1	1766

W**L**QQRPGQSPRRLIY	17J16	1767
W**L**QQRPGQSP**K**RLIY	17J16	1768
WFQQRPGQSPRRLI**F**	25M22	1769
W**Y**QQRPGQSPRRLI**F**	25M22	1770
WFQQRPGQSPR**L**LI**F**	25M22	1771
W**Y**QQRPGQSPR**L**LI**F**	25M22	1772
WYLQKPGQSPKLLIY	1C1	1773
WYQQKPGQPPKLLIY	3P10, 5F12	1774
WYQQKPGKAPKLLIY	5F12	1775
WYQQKPGQAPRLLIY	5F12, 25M22	1776
WYQQKPGQAPRLLI**F**	25M22	1777
VL Framework 3 (FR3)		
GVPDRFSGSGSGTDFTLKISRVEAEDVGVYYC	1C1, 3P10, 5F12, 25M22, 17J16	1778
GVPDRFSGSGSG**A**DFTLKISRVEAEDVGVYYC	17J16	1779
GVPDRFSGSGSGTDFTLKISRVEAEDVGVY**F**C	1C1, 3P10	1780
GVPDRFSGSGS**R**TDFTLKISRVEAEDVGVYYC	5F12	1781
GVPDRFSGSGSGTDFTLTISSLQAEDVAVYYC	5F12	1782
GVPDRFSGSGS**R**TDFTLTISSLQAEDVAVYYC	5F12	1783
GVPDRFSGSGSGTDFTLTISS**V**QAEDVAVYYC	5F12	1784
GVPDRFSGSGS**R**TDFTLTISS**V**QAEDVAVYYC	5F12	1785
GVPSRFSGSGSGTDFTLTISSLQPEDFATYYC	5F12	1786
GVPSRFSGSGSGTDFTLTISS**V**QPEDFATYYC	5F12	1787
GIPARFSGSGSGTDFTLTISSLEPEDFAVYYC	5F12	1788
G**V**PARFSGSGSGTDFTLTISSLEPEDFAVYYC	5F12	1789
GIPARFSGSGSGTDFTLTISS**V**EPEDFAVYYC	5F12	1790
G**V**PARFSGSGSGTDFTLTISS**V**EPEDFAVYYC	5F12	1791
GIPDRFSGSGSGTDFTLTISRLEPEDFAVYYC	25M22	1792
VL Framework 4 (FR4)		
FGGGTKVEIK	1C1, 3P10, 5F12, 25M22, 17J16	1793
FGSGTKLEIK	1C1, 3P10	1794

[00292] In certain embodiments, an antibody or fragment thereof described herein comprises a VH region that comprises: (1) a VH FR1 having an amino acid sequence selected from SEQ ID NOS: 570-578; (2) a VH FR2 having an amino acid sequence selected from SEQ ID NOS: 579-602; (3) a VH FR3 having an amino acid sequence selected from SEQ ID NOS: 603-1726; and/or (4) a VH FR4 having an amino acid selected from SEQ ID NOS: 1727-1728. Accordingly, in some aspects, the humanized antibody comprises a VH region that includes a VH FR1 having an amino acid sequence selected from SEQ ID NOS: 570-578. In some aspects, the humanized antibody comprises a VH region that includes a VH FR2 having an amino acid sequence selected from SEQ ID NOS: 579-602. In some aspects, the humanized antibody comprises a VH region that includes a VH FR3 having an amino acid sequence selected from SEQ ID NOS: 603-1726. In some aspects, the humanized antibody comprises a VH region that includes a VH FR4 having an amino acid selected from SEQ ID NOS: 1727-1728.

[00293] In certain embodiments, an antibody or fragment thereof described herein comprises a VL region that comprises: (1) a VL FR1 having an amino acid sequence selected from SEQ ID NOS: 1729-1750; (2) a VL FR2 having an amino acid sequence selected from SEQ ID NOS: 1751-1777; (3) a VL FR3 having an amino acid sequence selected from SEQ ID NOS: 1778-1792; and/or (4) a VL FR4 having an amino acid selected from SEQ ID NOS: 1793-1794. Accordingly, in some aspects, the humanized antibody comprises a VL region that includes a VL FR1 having an amino acid sequence selected from SEQ ID NOS: 1729-1750. In some aspects, the humanized antibody comprises a VL region that includes a VL FR2 having an amino acid sequence selected from SEQ ID NOS: 1751-1777. In some aspects, the humanized antibody comprises a VL region that includes a VL FR3 having an amino acid sequence selected from SEQ ID NOS: 1778-1792. In some aspects, the humanized antibody comprises a VL region that includes a VL FR4 having an amino acid selected from SEQ ID NOS: 1793-1794.

[00294] In certain embodiments, an antibody or fragment thereof described herein comprises a VH region and a VL region, wherein the VH region further comprises: (1) a VH FR1 having an amino acid sequence selected from SEQ ID NOS: 570-578; (2) a VH FR2 having an amino acid sequence selected from SEQ ID NOS: 579-602; (3) a VH FR3 having an amino acid sequence selected from SEQ ID NOS: 603-

1726; and/or (4) a VH FR4 having an amino acid sequence of SEQ ID NOS: 1727-1728; and wherein the VL region further comprises: (1) a VL FR1 having an amino acid sequence selected from SEQ ID NOS: 1729-1750; (2) a VL FR2 having an amino acid sequence selected from SEQ ID NOS: 1751-1777; (3) a VL FR3 having an amino acid sequence selected from SEQ ID NOS: 1778-1792; and/or (4) a VL FR4 having an amino acid selected from SEQ ID NOS: 1793-1794.

[00295] Also provided herein are antibodies comprising one or more (e.g., one, two, three or four) VH FRs and one or more (e.g., one, two, three or four) VL FRs listed in Table 25. In particular, provided herein is an antibody comprising: a VH FR1 (SEQ ID NOS:570-578) and a VL FR1 (SEQ ID NOS:1729-1750); a VH FR1 (SEQ ID NOS:570-578) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR1 (SEQ ID NOS:570-578) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR1 (SEQ ID NOS:570-578) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR2 (SEQ ID NOS:579-602) and a VL FR1 (SEQ ID NOS:1729-1750); a VH FR2 (SEQ ID NOS:579-602) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR2 (SEQ ID NOS:579-602) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR2 (SEQ ID NOS:579-602) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR3 (SEQ ID NOS:603-1726) and a VL FR1 (SEQ ID NOS:1729-1750); a VH FR3 (SEQ ID NOS:603-1726) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR3 (SEQ ID NOS:603-1726) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR3 (SEQ ID NOS:603-1726) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR1 (SEQ ID NOS:1729-1750); a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602) and a VL FR1 (SEQ ID NOS:1729-1750); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726) and a VL FR1 (SEQ ID NOS:1729-1750); a VH FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726) and a VL FR2 (SEQ ID NOS:1751-1777); a VH

FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR1 (SEQ ID NOS:570-578), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR1 (SEQ ID NOS:570-578), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR1 (SEQ ID NOS:570-578), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR1 (SEQ ID NOS:570-578), a VL FR2 (SEQ ID NOS:1751-1777) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR1 (SEQ ID NOS:570-578), a VL FR2 (SEQ ID NOS:1751-1777) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR2 (SEQ ID NOS:579-602), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR2 (SEQ ID NOS:579-602), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR2 (SEQ ID NOS:579-602), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR2 (SEQ ID NOS:579-602), a VL FR2 (SEQ ID NOS:1751-1777) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR2 (SEQ ID NOS:579-602), a VL FR2 (SEQ ID NOS:1751-1777) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR3 (SEQ ID NOS:603-1726), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR3 (SEQ ID NOS:603-1726), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR3 (SEQ ID NOS:603-1726), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR3 (SEQ ID NOS:603-1726), a VL FR2 (SEQ ID NOS:1751-1777) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR3 (SEQ ID NOS:603-1726), a VL FR2 (SEQ ID NOS:1751-1777) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR4 (SEQ ID NOS:1727-1728), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR4 (SEQ ID NOS:1727-1728), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR4 (SEQ ID NOS:1727-1728), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR4 (SEQ ID NOS:1727-1728), a VL FR2 (SEQ ID NOS:1751-1777) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR4 (SEQ ID NOS:1727-1728), a VL FR2 (SEQ ID NOS:1751-1777) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726) and a VL FR1 (SEQ ID NOS:1729-1750); a VH FR1 (SEQ ID NOS:570-578),

a VH FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR1 (SEQ ID NOS:1729-1750); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR1 (SEQ ID NOS:570-578), a VH FR3 (SEQ ID NOS:603-1726), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR1 (SEQ ID NOS:1729-1750); a VH FR1 (SEQ ID NOS:570-578), a VH FR3 (SEQ ID NOS:603-1726), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR1 (SEQ ID NOS:570-578), a VH FR3 (SEQ ID NOS:603-1726), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR1 (SEQ ID NOS:570-578), a VH FR3 (SEQ ID NOS:603-1726), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR1 (SEQ ID NOS:1729-1750); a VH FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR2 (SEQ ID NOS:579-602), a VH FR3 (SEQ ID NOS:603-1726), a VH FR4 (SEQ ID NOS:1727-1728) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR2 (SEQ ID NOS:1751-1777); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR3 (SEQ ID NOS:1778-1792); a VH FR1 (SEQ ID NOS:570-578), a VH FR2 (SEQ ID NOS:579-602), a VL FR1 (SEQ ID NOS:1729-1750) and a VL FR4 (SEQ ID NOS:1793-1794); a VH FR1 (SEQ ID NOS:570-578), a VH FR3 (SEQ ID NOS:603-1726), a VL FR1 (SEQ ID NOS:1729-1750) and a VL

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[00296] In yet another aspect, antibodies are provided that compete with one of the exemplified antibodies or functional fragments for binding to GFRAL. Such antibodies may also bind to the same epitope as one of the herein exemplified antibodies, or an overlapping epitope. Antibodies and fragments that compete with or bind to the same epitope as the exemplified antibodies are expected to show similar functional properties. The exemplified antigen binding proteins and fragments include those with the VH and VL regions, and CDRs provided herein, including those in Tables 1-24. Thus, as a specific example, the antibodies that are provided include those that compete with an antibody comprising: (a) 1, 2, 3, 4, 5 or all 6 of the CDRs listed for an antibody listed in Tables 1-24; (b) a VH and a VL selected from the VH and a VL regions listed for an antibody listed in Tables 1-24; or (c) two light chains and two heavy chains comprising a VH and a VL as specified for an antibody listed in Tables 1-24.

[00297] In certain embodiments, antibodies of the compositions and methods of using the antibodies provided herein include those anti-GFRAL monoclonal antibodies described herein, *e.g.,* in the Examples section. Any anti-GFRAL antibody can be used in any of the methods provided herein. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 1, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 3, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 5, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 7, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 9, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 11, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 13, or a humanized variant thereof. In some embodiments

of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 15, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 17, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 17, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 19, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 21, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 23, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 25, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 27, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 29, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 31, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 33, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 35, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 37, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 39, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 480, or a humanized variant

thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 482, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 484, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 486, or a humanized variant thereof.

[00298] In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 2, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 4, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 6, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 8, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 10, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 12, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 14, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 16, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 18, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 20, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 22, or a humanized

variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 24, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 26, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 28, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 30, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 32, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 34, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 36, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 38, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 40, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 481, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 483, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 485, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VL region comprising the amino acid sequence of SEQ ID NO: 487, or a humanized variant thereof.

[00299] In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 1, or a humanized variant thereof, and a VL region comprising the amino acid sequence of

SEQ ID NO: 2, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 3, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 4, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 5, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 6, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 7, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 8, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 9, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 10, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 11, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 12, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 13, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 14, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 15, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 16, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 17, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 18, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 19, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 20, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid

sequence of SEQ ID NO: 21, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 22, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 23, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 24, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 25, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 26, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 27, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 28, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 29, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 30, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 31, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 32, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 33, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 34, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 35, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 36, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 37, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 38, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 39, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 40, or a humanized

variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 480, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 481, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 482, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 483, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 484, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 485, or a humanized variant thereof. In some embodiments of the various methods provided herein, the antibody comprises a VH region comprising the amino acid sequence of SEQ ID NO: 486, or a humanized variant thereof, and a VL region comprising the amino acid sequence of SEQ ID NO: 487, or a humanized variant thereof.

[00300] In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 1 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 2. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 3 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 4. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 5 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 6. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 7 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 8. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 9 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising

the amino acid sequence of SEQ ID NO: 10. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 11 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 12. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 13 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 14. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 15 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 16. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 17 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 18. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 19 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 20. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 21 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 22. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 23 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 24. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 25 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 26. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 27 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence

of SEQ ID NO: 28. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 29 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 30. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 31 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 32. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 33 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 34. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 35 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 36. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 37 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 38. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 39 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 40. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 480 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 481. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 482 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 483. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 484 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence

of SEQ ID NO: 485. In some embodiments of the various methods provided herein, the antibody comprises a VH CDR1, VH CDR2, and VH CDR3 of a VH domain having the amino acid sequence of SEQ ID NO: 486 and a VL CDR1, VL CDR2, and VL CDR3 of a VL region comprising the amino acid sequence of SEQ ID NO: 487. Other VH domain, VL domain, VH CDR1, VH CDR2, VH CDR3, VL CDR1, VL CDR2 and VL CDR3 sequences listed described herein are also contemplated for use in the various methods provided herein.

1. Polyclonal Antibodies

[00301] The antibodies of the present disclosure may comprise polyclonal antibodies. Methods of preparing polyclonal antibodies are known to the skilled artisan. Polyclonal antibodies can be raised in a mammal, for example, by one or more injections of an immunizing agent and, if desired, an adjuvant. Typically, the immunizing agent and/or adjuvant will be injected in the mammal by multiple subcutaneous or intraperitoneal injections. The immunizing agent may include a GFRAL polypeptide or a fusion protein thereof. It may be useful to conjugate the immunizing agent to a protein known to be immunogenic in the mammal being immunized or to immunize the mammal with the protein and one or more adjuvants. Examples of such immunogenic proteins include but are not limited to keyhole limpet hemocyanin, serum albumin, bovine thyroglobulin, and soybean trypsin inhibitor. Examples of adjuvants which may be employed include Ribi, CpG, Poly 1C, Freund's complete adjuvant and MPL-TDM adjuvant (monophosphoryl Lipid A, synthetic trehalose dicorynomycolate). The immunization protocol may be selected by one skilled in the art without undue experimentation. The mammal can then be bled, and the serum assayed for GFRAL antibody titer. If desired, the mammal can be boosted until the antibody titer increases or plateaus. Additionally or alternatively, lymphocytes may be obtained from the immunized animal for fusion and the preparation of monoclonal antibodies from hybridoma as described below.

2. Monoclonal Antibodies

[00302] The antibodies of the present disclosure may alternatively be monoclonal antibodies. Monoclonal antibodies may be made using the hybridoma method first described by Kohler *et al.,* Nature, 256:495 (1975), or may be made by recombinant DNA methods (see, *e.g.,* U.S. Patent No. 4,816,567).

[00303] In the hybridoma method, a mouse or other appropriate host animal, such as a hamster, is immunized as described above to elicit lymphocytes that produce or are capable of producing antibodies that will specifically bind to the protein used for immunization. Alternatively, lymphocytes may be immunized *in vitro*. After immunization, lymphocytes are isolated and then fused with a myeloma cell line using a suitable fusing agent, such as polyethylene glycol, to form a hybridoma cell (Goding, Monoclonal Antibodies: Principles and Practice, pp.59-103 (Academic Press, 1986)).

[00304] The hybridoma cells thus prepared are seeded and grown in a suitable culture medium which medium preferably contains one or more substances that inhibit the growth or survival of the unfused, parental myeloma cells (also referred to as fusion partner). For example, if the parental myeloma cells lack the enzyme hypoxanthine guanine phosphoribosyl transferase (HGPRT or HPRT), the selective culture medium for the hybridomas typically will include hypoxanthine, aminopterin, and thymidine (HAT medium), which substances prevent the growth of HGPRT-deficient cells.

[00305] Preferred fusion partner myeloma cells are those that fuse efficiently, support stable high-level production of antibody by the selected antibody-producing cells, and are sensitive to a selective medium that selects against the unfused parental cells. Preferred myeloma cell lines are murine myeloma lines, such as SP-2 and derivatives, for example, X63-Ag8-653 cells available from the American Type Culture Collection, Manassas, Virginia, USA and those derived from MOPC-21 and MPC-11 mouse tumors available from the Salk Institute Cell Distribution Center, San Diego, California USA. Human myeloma and mouse-human heteromyeloma cell lines also have been described for the production of human monoclonal antibodies (Kozbor, J., *Immunol.*, 133:3001 (1984); and Brodeur *et al.*, *Monoclonal Antibody Production Techniques and Applications*, pp. 51-63 (Marcel Dekker, Inc., New York, 1987)).

[00306] Culture medium in which hybridoma cells are growing is assayed for production of monoclonal antibodies directed against the antigen. The binding specificity of monoclonal antibodies produced by hybridoma cells is determined by immunoprecipitation or by an *in vitro* binding assay, such as radioimmunoassay (RIA) or enzyme-linked immunosorbent assay (ELISA). The binding affinity of the

monoclonal antibody can, for example, be determined by the Scatchard analysis described in Munson *et al.*, *Anal. Biochem.*, 107:220 (1980).

[00307] Once hybridoma cells that produce antibodies of the desired specificity, affinity, and/or activity are identified, the clones may be subcloned by limiting dilution procedures and grown by standard methods (Goding, *Monoclonal Antibodies: Principles and Practice*, pp.59-103 (Academic Press, 1986)). Suitable culture media for this purpose include, for example, D-MEM or RPMI-1640 medium. In addition, the hybridoma cells may be grown *in vivo* as ascites tumors in an animal, for example, by i.p. injection of the cells into mice.

[00308] The monoclonal antibodies secreted by the subclones are suitably separated from the culture medium, ascites fluid, or serum by conventional antibody purification procedures such as, for example, affinity chromatography (*e.g.,* using protein A or protein G-Sepharose) or ion-exchange chromatography, hydroxylapatite chromatography, gel electrophoresis, dialysis, etc.

[00309] DNA encoding the monoclonal antibodies is readily isolated and sequenced using conventional procedures (*e.g.,* by using oligonucleotide probes that are capable of binding specifically to genes encoding the heavy and light chains of murine antibodies). The hybridoma cells serve as a preferred source of such DNA. Once isolated, the DNA may be placed into expression vectors, which are then transfected into host cells such as *E. coli* cells, simian COS cells, Chinese Hamster Ovary (CHO) cells, or myeloma cells that do not otherwise produce antibody protein, to obtain the synthesis of monoclonal antibodies in the recombinant host cells. Review articles on recombinant expression in bacteria of DNA encoding the antibody include Skerra *et al.*, *Curr. Opinion in Immunol.*, 5:256-262 (1993) and Plückthun, *Immunol. Revs.* 130:151-188 (1992).

[00310] In some embodiments, an antibody that binds a GFRAL epitope comprises an amino acid sequence of a VH domain and/or an amino acid sequence of a VL domain encoded by a nucleotide sequence that hybridizes to (1) the complement of a nucleotide sequence encoding any one of the VH and/or VL domain described herein under stringent conditions (*e.g.,* hybridization to filter-bound DNA in 6x sodium chloride/sodium citrate (SSC) at about 45° C followed by one or more washes in 0.2xSSC/0.1% SDS at about 50-65° C) under highly stringent conditions

(*e.g.,* hybridization to filter-bound nucleic acid in 6xSSC at about 45° C followed by one or more washes in 0.1xSSC/0.2% SDS at about 68° C), or under other stringent hybridization conditions which are known to those of skill in the art (see, for example, Ausubel, F.M. *et al.*, eds., 1989, Current Protocols in Molecular Biology, Vol. I, Green Publishing Associates, Inc. and John Wiley & Sons, Inc., New York at pages 6.3.1-6.3.6 and 2.10.3).

[00311] In some embodiments, an antibody that binds a GFRAL epitope comprises an amino acid sequence of a VH CDR or an amino acid sequence of a VL CDR encoded by a nucleotide sequence that hybridizes to the complement of a nucleotide sequence encoding any one of the VH CDRs and/or VL CDRs depicted in Tables 1-24 under stringent conditions (*e.g.,* hybridization to filter-bound DNA in 6X SSC at about 45° C followed by one or more washes in 0.2X SSC/0.1% SDS at about 50-65° C), under highly stringent conditions (*e.g.,* hybridization to filter-bound nucleic acid in 6X SSC at about 45° C followed by one or more washes in 0.1X SSC/0.2% SDS at about 68° C), or under other stringent hybridization conditions which are known to those of skill in the art (see, for example, Ausubel, F.M. *et al.*, eds., 1989, Current Protocols in Molecular Biology, Vol. I, Green Publishing Associates, Inc. and John Wiley & Sons, Inc., New York at pages 6.3.1-6.3.6 and 2.10.3).

[00312] In a further embodiment, monoclonal antibodies or antibody fragments can be isolated from antibody phage libraries generated using the techniques described in, for example, *Antibody Phage Display: Methods and Protocols*, P.M. O'Brien and R. Aitken, eds, Humana Press, Totawa N.J., 2002. In principle, synthetic antibody clones are selected by screening phage libraries containing phage that display various fragments of antibody variable region (Fv) fused to phage coat protein. Such phage libraries are screened for against the desired antigen. Clones expressing Fv fragments capable of binding to the desired antigen are adsorbed to the antigen and thus separated from the non-binding clones in the library. The binding clones are then eluted from the antigen, and can be further enriched by additional cycles of antigen adsorption/elution.

[00313] Variable domains can be displayed functionally on phage, either as single-chain Fv (scFv) fragments, in which VH and VL are covalently linked through a short, flexible peptide, or as Fab fragments, in which they are each fused to a

constant domain and interact non-covalently, as described, for example, in Winter *et al.*, *Ann. Rev. Immunol.*, 12: 433-455 (1994).

[00314] Repertoires of VH and VL genes can be separately cloned by polymerase chain reaction (PCR) and recombined randomly in phage libraries, which can then be searched for antigen-binding clones as described in Winter *et al.*, *supra*. Libraries from immunized sources provide high-affinity antibodies to the immunogen without the requirement of constructing hybridomas. Alternatively, the naive repertoire can be cloned to provide a single source of human antibodies to a wide range of non-self and also self antigens without any immunization as described by Griffiths *et al.*, *EMBO J*, 12: 725-734 (1993). Finally, naive libraries can also be made synthetically by cloning the unrearranged V-gene segments from stem cells, and using PCR primers containing random sequence to encode the highly variable CDR3 regions and to accomplish rearrangement *in vitro* as described, for example, by Hoogenboom and Winter, *J. Mol. Biol.*, 227: 381-388 (1992).

[00315] Screening of the libraries can be accomplished by various techniques known in the art. For example, GFRAL, (*e.g.,* a GFRAL polypeptide, fragment or epitope) can be used to coat the wells of adsorption plates, expressed on host cells affixed to adsorption plates or used in cell sorting, or conjugated to biotin for capture with streptavidin-coated beads, or used in any other method for panning display libraries. The selection of antibodies with slow dissociation kinetics (*e.g.,* good binding affinities) can be promoted by use of long washes and monovalent phage display as described in Bass *et al.*, *Proteins*, 8: 309-314 (1990) and in WO 92/09690, and a low coating density of antigen as described in Marks *et al.*, *Biotechnol.*, 10: 779-783 (1992).

[00316] Anti-GFRAL antibodies can be obtained by designing a suitable antigen screening procedure to select for the phage clone of interest followed by construction of a full length anti-GFRAL antibody clone using VH and/or VL sequences (*e.g.,* the Fv sequences), or various CDR sequences from VH and VL sequences, from the phage clone of interest and suitable constant region (*e.g.,* Fc) sequences described in Kabat *et al.*, *Sequences of Proteins of Immunological Interest*, Fifth Edition, NIH Publication 91-3242, Bethesda MD (1991), vols. 1-3.

3. Antibody Fragments

[00317] The present disclosure provides antibodies and antibody fragments that bind to GFRAL. In certain circumstances there are advantages of using antibody fragments, rather than whole antibodies. The smaller size of the fragments allows for rapid clearance, and may lead to improved access to cells, tissues or organs. For a review of certain antibody fragments, see Hudson *et al.* (2003) *Nat. Med.* 9:129-134.

[00318] Various techniques have been developed for the production of antibody fragments. Traditionally, these fragments were derived via proteolytic digestion of intact antibodies (see, *e.g.,* Morimoto *et al.*, *Journal of Biochemical and Biophysical Methods* 24:107-117 (1992); and Brennan *et al.*, *Science*, 229:81 (1985)). However, these fragments can now be produced directly by recombinant host cells. Fab, Fv and ScFv antibody fragments can all be expressed in and secreted from *E. coli* or yeast cells, thus allowing the facile production of large amounts of these fragments. Antibody fragments can be isolated from the antibody phage libraries discussed above. Alternatively, Fab'-SH fragments can be directly recovered from *E. coli* and chemically coupled to form $F(ab')_2$ fragments (Carter *et al.*, *Bio/Technology* 10:163-167 (1992)). According to another approach, $F(ab')_2$ fragments can be isolated directly from recombinant host cell culture. Fab and $F(ab')_2$ fragment with increased *in vivo* half-life comprising salvage receptor binding epitope residues are described, for example, U.S. Pat. No. 5,869,046. Other techniques for the production of antibody fragments will be apparent to the skilled practitioner. In certain embodiments, an antibody is a single chain Fv fragment (scFv) (see, *e.g.,* WO 93/16185; U.S. Pat. Nos. 5,571,894; and 5,587,458). Fv and scFv have intact combining sites that are devoid of constant regions; thus, they may be suitable for reduced nonspecific binding during *in vivo* use. scFv fusion proteins may be constructed to yield fusion of an effector protein at either the amino or the carboxy terminus of an scFv. (See, *e.g.,* Antibody Engineering, ed. Borrebaeck, *supra).* The antibody fragment may also be a "linear antibody", for example, as described, for example, in the references cited above. Such linear antibodies may be monospecific or multi-specific, such as bispecific.

[00319] Smaller antibody-derived binding structures are the separate variable domains (V domains) also termed single variable domain antibodies (SdAbs). Certain types of organisms, the camelids and cartilaginous fish, possess high affinity

single V-like domains mounted on an Fc equivalent domain structure as part of their immune system. (Woolven *et al.*, *Immunogenetics* 50: 98-101, 1999; Streltsov *et al.*, *Proc Natl Acad Sci USA*. 101:12444-12449, 2004). The V-like domains (called VhH in camelids and V-NAR in sharks) typically display long surface loops, which allow penetration of cavities of target antigens. They also stabilize isolated VH domains by masking hydrophobic surface patches.

[00320] These VhH and V-NAR domains have been used to engineer sdAbs. Human V domain variants have been designed using selection from phage libraries and other approaches that have resulted in stable, high binding VL- and VH-derived domains.

[00321] Antibodies that bind to GFRAL as provided herein include, but are not limited to, synthetic antibodies, monoclonal antibodies, recombinantly produced antibodies, multispecific antibodies (including bi-specific antibodies), human antibodies, humanized antibodies, camelized antibodies, chimeric antibodies, intrabodies, anti-idiotypic (anti-Id) antibodies, and functional fragments, (*e.g.,* GFRAL binding fragments) of any of the above. Non-limiting examples of functional fragments (*e.g.,* fragments that bind to GFRAL) include single-chain Fvs (scFv) (*e.g.,* including monospecific, bispecific, etc.), Fab fragments, F(ab') fragments, F(ab)2 fragements, F(ab')2 fragments, disulfide-linked Fvs (sdFv), Fd fragments, Fv fragments, diabody, triabody, tetrabody and minibody.

[00322] Antibodies provided herein include, but are not limited to, immunoglobulin molecules and immunologically active portions of immunoglobulin molecules, for example, molecules that contain an antigen binding site that bind to a GFRAL epitope. The immunoglobulin molecules provided herein can be of any type (*e.g.,* IgG, IgE, IgM, IgD, IgA and IgY), class (*e.g.,* IgG1, IgG2, IgG3, IgG4, IgA1 and IgA2) or subclass of immunoglobulin molecule.

[00323] Variants and derivatives of antibodies include antibody functional fragments that retain the ability to bind to a GFRAL epitope. Exemplary functional fragments include Fab fragments (*e.g.,* an antibody fragment that contains the antigen-binding domain and comprises a light chain and part of a heavy chain bridged by a disulfide bond); Fab' (*e.g.,* an antibody fragment containing a single anti-binding domain comprising an Fab and an additional portion of the heavy chain through the hinge

region); F(ab')2 (*e.g.,* two Fab' molecules joined by interchain disulfide bonds in the hinge regions of the heavy chains; the Fab' molecules may be directed toward the same or different epitopes); a bispecific Fab (*e.g.,* a Fab molecule having two antigen binding domains, each of which may be directed to a different epitope); a single chain Fab chain comprising a variable region, also known as, a sFv (*e.g.,* the variable, antigen-binding determinative region of a single light and heavy chain of an antibody linked together by a chain of 10-25 amino acids); a disulfide-linked Fv, or dsFv (*e.g.,* the variable, antigen-binding determinative region of a single light and heavy chain of an antibody linked together by a disulfide bond); a camelized VH (*e.g.,* the variable, antigen-binding determinative region of a single heavy chain of an antibody in which some amino acids at the VH interface are those found in the heavy chain of naturally occurring camel antibodies); a bispecific sFv (*e.g.,* a sFv or a dsFv molecule having two antigen-binding domains, each of which may be directed to a different epitope); a diabody (*e.g.,* a dimerized sFv formed when the VH domain of a first sFv assembles with the VL domain of a second sFv and the VL domain of the first sFv assembles with the VH domain of the second sFv; the two antigen-binding regions of the diabody may be directed towards the same or different epitopes); and a triabody (*e.g.,* a trimerized sFv, formed in a manner similar to a diabody, but in which three antigen-binding domains are created in a single complex; the three antigen binding domains may be directed towards the same or different epitopes). Derivatives of antibodies also include one or more CDR sequences of an antibody combining site. The CDR sequences may be linked together on a scaffold when two or more CDR sequences are present. In certain embodiments, the antibody comprises a single-chain Fv ("scFv"). scFvs are antibody fragments comprising the VH and VL domains of an antibody, wherein these domains are present in a single polypeptide chain. The scFv polypeptide may further comprise a polypeptide linker between the VH and VL domains which enables the scFv to form the desired structure for antigen binding. For a review of scFvs see Pluckthun in The Pharmacology of Monoclonal Antibodies, vol. 113, Rosenburg and Moore eds. Springer-Verlag, New York, pp. 269-315 (1994).

4. Humanized Antibodies

[00324] The present disclosure provides humanized antibodies that bind GFRAL, including human GFRAL. Humanized antibodies of the present disclosure may

comprise one or more CDRs as shown in Tables 1-24. Various methods for humanizing non-human antibodies are known in the art. For example, a humanized antibody can have one or more amino acid residues introduced into it from a source that is non-human. These non-human amino acid residues are often referred to as "import" residues, which are typically taken from an "import" variable domain. Humanization may be performed, for example, following the method of Winter and co-workers (Jones *et al.* (1986) *Nature* 321:522-525; Riechmann *et al.* (1988) *Nature* 332:323-327; Verhoeyen *et al.* (1988) *Science* 239:1534-1536), by substituting hypervariable region sequences for the corresponding sequences of a human antibody.

[00325] In some cases, the humanized antibodies are constructed by CDR grafting, in which the amino acid sequences of the six complementarity determining regions (CDRs) of the parent non-human antibody (*e.g.,* rodent) are grafted onto a human antibody framework. For example, Padlan *et al.* (*FASEB J.* 9:133-139, 1995) determined that only about one third of the residues in the CDRs actually contact the antigen, and termed these the "specificity determining residues," or SDRs. In the technique of SDR grafting, only the SDR residues are grafted onto the human antibody framework (*see*, *e.g.,* Kashmiri *et al.*, *Methods* 36: 25-34, 2005).

[00326] The choice of human variable domains, both light and heavy, to be used in making the humanized antibodies can be important to reduce antigenicity. For example, according to the so-called "best-fit" method, the sequence of the variable domain of a non-human (*e.g.,* rodent) antibody is screened against the entire library of known human variable-domain sequences. The human sequence which is closest to that of the rodent may be selected as the human framework for the humanized antibody (Sims *et al.* (1993) *J. Immunol.* 151:2296; Chothia *et al.* (1987) *J. Mol. Biol.* 196:901. Another method uses a particular framework derived from the consensus sequence of all human antibodies of a particular subgroup of light or heavy chains. The same framework may be used for several different humanized antibodies (Carter *et al.* (1992) *Proc. Natl. Acad. Sci. USA*, 89:4285; Presta *et al.* (1993) *J. Immunol.*, 151:2623. In some cases, the framework is derived from the consensus sequences of the most abundant human subclasses, V_L6 subgroup I (V_L6I) and V_H subgroup III (V_HIII). In another method, human germline genes are used at the source of the framework regions.

[00327] In an alternative paradigm based on comparison of CDRs, called Superhumanization, FR homology is irrelevant. The method consists of comparison of the non-human sequence with the functional human germline gene repertoire. Those genes encoding the same or closely related canonical structures to the murine sequences are then selected. Next, within the genes sharing the canonical structures with the non-human antibody, those with highest homology within the CDRs are chosen as FR donors. Finally, the non-human CDRs are grafted onto these FRs (see, *e.g.,* Tan *et al.*, *J. Immunol.* 169: 1119-1125, 2002).

[00328] It is further generally desirable that antibodies be humanized with retention of their affinity for the antigen and other favorable biological properties. To achieve this goal, according to one method, humanized antibodies are prepared by a process of analysis of the parental sequences and various conceptual humanized products using three-dimensional models of the parental and humanized sequences. Three-dimensional immunoglobulin models are commonly available and are familiar to those skilled in the art. Computer programs are available which illustrate and display probable three-dimensional conformational structures of selected candidate immunoglobulin sequences. These include, for example, WAM (Whitelegg and Rees, *Protein Eng.* 13: 819-824, 2000), Modeller (Sali and Blundell, *J. Mol. Biol.* 234: 779-815, 1993), and Swiss PDB Viewer (Guex and Peitsch, Electrophoresis 18: 2714-2713, 1997). Inspection of these displays permits analysis of the likely role of the residues in the functioning of the candidate immunoglobulin sequence, *e.g.,* the analysis of residues that influence the ability of the candidate immunoglobulin to bind its antigen. In this way, FR residues can be selected and combined from the recipient and import sequences so that the desired antibody characteristic, such as increased affinity for the target antigen(s), is achieved. In general, the hypervariable region residues are directly and most substantially involved in influencing antigen binding.

[00329] Another method for antibody humanization is based on a metric of antibody humanness termed Human String Content (HSC). This method compares the mouse sequence with the repertoire of human germline genes and the differences are scored as HSC. The target sequence is then humanized by maximizing its HSC rather than using a global identity measure to generate multiple diverse humanized variants. (Lazar *et al.*, *Mol. Immunol.* 44: 1986-1998, 2007).

[00330] In addition to the methods described above, empirical methods may be used to generate and select humanized antibodies. These methods include those that are based upon the generation of large libraries of humanized variants and selection of the best clones using enrichment technologies or high throughput screening techniques. Antibody variants may be isolated from phage, ribosome and yeast display libraries as well as by bacterial colony screening (see, *e.g.,* Hoogenboom, *Nat. Biotechnol.* 23: 1105-1116, 2005; Dufner *et al.*, *Trends Biotechnol.* 24: 523-529, 2006; Feldhaus *et al.*, *Nat. Biotechnol.* 21: 163-70, 2003; Schlapschy *et al.*, *Protein Eng. Des. Sel.* 17: 847-60, 2004).

[00331] In the FR library approach, a collection of residue variants are introduced at specific positions in the FR followed by selection of the library to select the FR that best supports the grafted CDR. The residues to be substituted may include some or all of the "Vernier" residues identified as potentially contributing to CDR structure (see, *e.g.,* Foote and Winter, *J. Mol. Biol.* 224: 487-499, 1992), or from the more limited set of target residues identified by Baca *et al.* (*J. Biol. Chem.* 272: 10678-10684, 1997).

[00332] In FR shuffling, whole FRs are combined with the non-human CDRs instead of creating combinatorial libraries of selected residue variants (see, *e.g.,* Dall'Acqua *et al.*, *Methods* 36: 43-60, 2005). The libraries may be screened for binding in a two-step selection process, first humanizing VL, followed by VH. Alternatively, a one-step FR shuffling process may be used. Such a process has been shown to be more efficient than the two-step screening, as the resulting antibodies exhibited improved biochemical and physico-chemical properties including enhanced expression, increased affinity and thermal stability (see, *e.g.,* Damschroder *et al.*, *Mol. Immunol.* 44: 3049-60, 2007).

[00333] The "humaneering" method is based on experimental identification of essential minimum specificity determinants (MSDs) and is based on sequential replacement of non-human fragments into libraries of human FRs and assessment of binding. It begins with regions of the CDR3 of non-human VH and VL chains and progressively replaces other regions of the non-human antibody into the human FRs, including the CDR1 and CDR2 of both VH and VL. This methodology typically results in epitope retention and identification of antibodies from multiple sub-classes with distinct human V-segment CDRs. Humaneering allows for isolation of antibodies

that are 91-96 % homologous to human germline gene antibodies. (see, *e.g.,* Alfenito, Cambridge Healthtech Institute's Third Annual PEGS, The Protein Engineering Summit, 2007).

[00334] The "human engineering" method involves altering an non-human antibody or antibody fragment, such as a mouse or chimeric antibody or antibody fragment, by making specific changes to the amino acid sequence of the antibody so as to produce a modified antibody with reduced immunogenicity in a human that nonetheless retains the desirable binding properties of the original non-human antibodies. Generally, the technique involves classifying amino acid residues of a non-human (*e.g.,* mouse) antibody as "low risk", "moderate risk", or "high risk" residues. The classification is performed using a global risk/reward calculation that evaluates the predicted benefits of making particular substitution (*e.g.,* for immunogenicity in humans) against the risk that the substitution will affect the resulting antibody's folding and/or are substituted with human residues. The particular human amino acid residue to be substituted at a given position (*e.g.,* low or moderate risk) of a non-human (*e.g.,* mouse) antibody sequence can be selected by aligning an amino acid sequence from the non-human antibody's variable regions with the corresponding region of a specific or consensus human antibody sequence. The amino acid residues at low or moderate risk positions in the non-human sequence can be substituted for the corresponding residues in the human antibody sequence according to the alignment. Techniques for making human engineered proteins are described in greater detail in Studnicka *et al.*, Protein Engineering, 7: 805-814 (1994), U.S. Patents 5,766,886, 5,770,196, 5,821,123, and 5,869,619, and PCT Application Publication WO 93/11794.

5. Human Antibodies

[00335] Human anti-GFRAL antibodies can be constructed by combining Fv clone variable domain sequence(s) selected from human-derived phage display libraries with known human constant domain sequences(s). Alternatively, human monoclonal GFRAL antibodies of the present disclosure can be made by the hybridoma method. Human myeloma and mouse-human heteromyeloma cell lines for the production of human monoclonal antibodies have been described, for example, by Kozbor *J. Immunol.*, 133: 3001 (1984); Brodeur *et al.*, *Monoclonal Antibody Production*

Techniques and Applications, pp. 51-63 (Marcel Dekker, Inc., New York, 1987); and Boerner *et al.*, *J. Immunol.*, 147: 86 (1991).

[00336] It is also possible to produce transgenic animals (*e.g.,* mice) that are capable, upon immunization, of producing a full repertoire of human antibodies in the absence of endogenous immunoglobulin production. Transgenic mice that express human antibody repertoires have been used to generate high-affinity human sequence monoclonal antibodies against a wide variety of potential drug targets (*see*, *e.g.,* Jakobovits, A., *Curr. Opin. Biotechnol.* 1995, 6(5):561-6; Brüggemann and Taussing, *Curr. Opin. Biotechnol.* 1997, 8(4):455-8; U.S. Pat. Nos. 6,075,181 and 6,150,584; and Lonberg *et al.*, *Nature Biotechnol.* 23: 1117-1125, 2005).

[00337] Alternatively, the human antibody may be prepared via immortalization of human B lymphocytes producing an antibody directed against a target antigen (*e.g.,* such B lymphocytes may be recovered from an individual or may have been immunized *in vitro*) (*see*, *e.g.,* Cole *et al.*, *Monoclonal Antibodies and Cancer Therapy*, Alan R. Liss, p. 77 (1985); Boerner *et al.*, *J. Immunol.*, 147 (1):86-95 (1991); and US Pat No. 5,750,373).

[00338] Gene shuffling can also be used to derive human antibodies from non-human, for example, rodent, antibodies, where the human antibody has similar affinities and specificities to the starting non-human antibody. According to this method, which is also called “epitope imprinting” or “guided selection”, either the heavy or light chain variable region of a non-human antibody fragment obtained by phage display techniques as described herein is replaced with a repertoire of human V domain genes, creating a population of non-human chain/human chain scFv or Fab chimeras. Selection with antigen results in isolation of a non-human chain/human chain chimeric scFv or Fab wherein the human chain restores the antigen binding site destroyed upon removal of the corresponding non-human chain in the primary phage display clone, (*e.g.,* the epitope guides (imprints) the choice of the human chain partner). When the process is repeated in order to replace the remaining non-human chain, a human antibody is obtained (see, *e.g.,* PCT WO 93/06213; and Osbourn *et al.*, Methods., 36, 61-68, 2005). Unlike traditional humanization of non-human antibodies by CDR grafting, this technique provides completely human antibodies, which have no FR or CDR residues of non-human origin. Examples of guided selection to humanize mouse antibodies towards cell

surface antigens include the folate-binding protein present on ovarian cancer cells (see, *e.g.,* Figini *et al.*, *Cancer Res.*, 58, 991-996, 1998) and CD147, which is highly expressed on hepatocellular carcinoma (see, *e.g.,* Bao *et al.*, *Cancer Biol. Ther.*, 4, 1374-1380, 2005).

[00339] A potential disadvantage of the guided selection approach is that shuffling of one antibody chain while keeping the other constant could result in epitope drift. In order to maintain the epitope recognized by the non-human antibody, CDR retention can be applied (see, *e.g.,* Klimka *et al.*, *Br. J. Cancer.*, 83, 252-260, 2000; VH CDR2 Beiboer *et al.*, *J. Mol. Biol.*, 296, 833-49, 2000) In this method, the non-human VH CDR3 is commonly retained, as this CDR may be at the center of the antigen-binding site and may be to be the most important region of the antibody for antigen recognition. In some instances, however, VH CDR3 and VL CDR3, as well as VH CDR3, VL CDR3 and VL CFR1, of the non-human antibody may be retained.

6. Bispecific Antibodies

[00340] Bispecific antibodies are monoclonal antibodies that have binding specificities for at least two different antigens. In certain embodiments, bispecific antibodies are human or humanized antibodies. In certain embodiments, one of the binding specificities is for GFRAL and the other is for any other antigen. In some embodiments, bispecific antibodies can bind to two different epitopes of GFRAL. Bispecific antibodies can be prepared as full length antibodies or antibody fragments (*e.g.,* $F(ab')_2$ bispecific antibodies).

[00341] Methods for making bispecific antibodies are known in the art, such as, for example, by co-expression of two immunoglobulin heavy chain-light chain pairs, where the two heavy chains have different specificities (*see*, *e.g.,* Milstein and Cuello, *Nature*, 305: 537 (1983)). For further details of generating bispecific antibodies see, for example, *Bispecific Antibodies*, Kontermann, ed., Springer-Verlag, Hiedelberg (2011).

7. Multivalent Antibodies

[00342] A multivalent antibody may be internalized (and/or catabolized) faster than a bivalent antibody by a cell expressing an antigen to which the antibodies bind. The antibodies of the present disclosure can be multivalent antibodies (which are other than of the IgM class) with three or more antigen binding sites (*e.g.,* tetravalent

antibodies), which can be readily produced by recombinant expression of nucleic acid encoding the polypeptide chains of the antibody. The multivalent antibody can comprise a dimerization domain and three or more antigen binding sites. In certain embodiments, the dimerization domain comprises (or consists of) an Fc region or a hinge region. In this scenario, the antibody will comprise an Fc region and three or more antigen binding sites amino-terminal to the Fc region. In certain embodiments, a multivalent antibody comprises (or consists of) three to about eight antigen binding sites. In one such embodiment, a multivalent antibody comprises (or consists of) four antigen binding sites. The multivalent antibody comprises at least one polypeptide chain (for example, two polypeptide chains), wherein the polypeptide chain(s) comprise two or more variable domains. For instance, the polypeptide chain(s) may comprise VD1-(X1)n -VD2-(X2)n -Fc, wherein VD1 is a first variable domain, VD2 is a second variable domain, Fc is one polypeptide chain of an Fc region, X1 and X2 represent an amino acid or polypeptide, and n is 0 or 1. For instance, the polypeptide chain(s) may comprise: VH-CH1-flexible linker-VH-CH1-Fc region chain; or VH-CH1-VH-CH1-Fc region chain. The multivalent antibody herein may further comprise at least two (for example, four) light chain variable domain polypeptides. The multivalent antibody herein may, for instance, comprise from about two to about eight light chain variable domain polypeptides. The light chain variable domain polypeptides contemplated here comprise a light chain variable domain and, optionally, further comprise a CL domain.

8. Fc Engineering

[00343] It may be desirable to modify an antibody to GFRAL via Fc engineering, including, with respect to effector function, for example, so as to decrease or remove antigen-dependent cell-mediated cytotoxicity (ADCC) and/or complement dependent cytotoxicity (CDC) of the antibody. This may be achieved by introducing one or more amino acid substitutions in an Fc region of the antibody. For example, substitutions into human IgG1 using IgG2 residues as positions 233-236 and IgG4 residues at positions 327, 330 and 331 were shown to greatly reduce ADCC and CDC (see, *e.g.,* Armour *et al.*, *Eur. J. Immunol.* 29:(8):2613-24 (1999); Shields *et al.*, *J. Biol..Chem.* 276(9): 6591-604 (2001).

[00344] To increase the serum half life of the antibody, one may incorporate a salvage receptor binding epitope into the antibody (especially an antibody fragment),

for example, as described in U.S. Patent 5,739,277. Term "salvage receptor binding epitope" refers to an epitope of the Fc region of an IgG molecule (*e.g.,* IgG1, IgG2, IgG3, or IgG4) that is responsible for increasing the *in vivo* serum half-life of the IgG molecule.

9. Alternative Binding Agents

[00345] The present disclosure encompasses non-immunoglobulin binding agents that specifically bind to the same epitope as an anti-GFRAL antibody disclosed herein. In some embodiments, a non-immunoglobulin binding agent is identified an agent that displaces or is displaced by an anti-GFRAL antibody of the present disclosure in a competive binding assay. These alternative binding agents may include, for example, any of the engineered protein scaffolds known in the art. Such scaffolds may comprise one or more CDRs as shown in Tables 1-24. Such scaffolds include, for example, anticalins, which are based upon the lipocalin scaffold, a protein structure characterized by a rigid beta-barrel that supports four hypervariable loops which form the ligand binding site. Novel binding specificities may be engineered by targeted random mutagenesis in the loop regions, in combination with functional display and guided selection (see, *e.g.,* Skerra (2008) *FEBS J.* 275: 2677-2683). Other suitable scaffolds may include, for example, adnectins, or monobodies, based on the tenth extracellular domain of human fibronectin III (see, *e.g.,* Koide and Koide (2007) *Methods Mol. Biol.* 352: 95-109); affibodies, based on the Z domain of staphylococcal protein A (see, *e.g.,* Nygren *et al.* (2008) *FEBS J.* 275: 2668-2676)); DARPins, based on ankyrin repeat proteins (see, *e.g.,* Stumpp *et al.* (2008) *Drug. Discov. Today* 13: 695-701); fynomers, based on the SH3 domain of the human Fyn protein kinase Grabulovski *et al.* (2007) *J. Biol. Chem.* 282: 3196-3204); affitins, based on Sac7d from Sulfolobus acidolarius (see, *e.g.,* Krehenbrink *et al.* (2008) *J. Mol. Biol.* 383: 1058-1068); affilins, based on human y-B-crystallin (see, *e.g.,* Ebersbach *et al.* (2007) *J. Mol. Biol.* 372: 172-185); avimers, based on the A domains of membrane receptor proteins (see, *e.g.,* Silverman *et al.* (2005) *Biotechnol.* 23: 1556-1561); cysteine-rich knottin peptides (see, *e.g.,* Kolmar (2008) *FEBS J.* 275: 2684-2690); and engineered Kunitz-type inhibitors (see, *e.g.,* Nixon and Wood (2006) *Curr. Opin. Drug. Discov. Dev.* 9: 261-268) For a review, see, for example, Gebauer and Skerra (2009) *Curr. Opin. Chem. Biol.* 13: 245-255.

Antibody Variants

[00346] In some embodiments, amino acid sequence modification(s) of the antibodies that bind to GFRAL described herein are contemplated. For example, it may be desirable to improve the binding affinity and/or other biological properties of the antibody, including but not limited to specificity, thermostability, expression level, effector functions, glycosylation, reduced immunogenicity or solubility. This, in addition to the anti-GFRAL antibodies described herein, it is contemplated that anti-GFRAL antibody variants can be prepared. For example, anti-GFRAL antibody variants can be prepared by introducing appropriate nucleotide changes into the encoding DNA, and/or by synthesis of the desired antibody or polypeptide. Those skilled in the art will appreciate that amino acid changes may alter post-translational processes of the anti-GFRAL antibody, such as changing the number or position of glycosylation sites or altering the membrane anchoring characteristics.

[00347] In some embodiments, antibodies provided herein are chemically modified, for example, by the association with, including covalent attachment of, any type of molecule with the antibody. The antibody derivatives may include antibodies that have been chemically modified, for example, by glycosylation, acetylation, pegylation, phosphorylation, amidation, derivatization by known protecting/blocking groups, proteolytic cleavage, linkage to a cellular ligand or other protein, etc. Any of numerous chemical modifications may be carried out by known techniques, including, but not limited, to specific chemical cleavage, acetylation, formulation, metabolic synthesis of tunicamycin, etc. Additionally, the antibody may contain one or more non-classical amino acids.

[00348] Variations may be a substitution, deletion or insertion of one or more codons encoding the antibody or polypeptide that results in a change in the amino acid sequence as compared with the native sequence antibody or polypeptide. Amino acid substitutions can be the result of replacing one amino acid with another amino acid having similar structural and/or chemical properties, such as the replacement of a leucine with a serine, *e.g.,* conservative amino acid replacements. Insertions or deletions may optionally be in the range of about 1 to 5 amino acids. In certain embodiments, the substitution, deletion or insertion includes less than 25 amino acid substitutions, less than 20 amino acid substitutions, less than 15 amino acid substitutions, less than 10 amino acid substitutions, less than 5 amino acid

substitutions, less than 4 amino acid substitutions, less than 3 amino acid substitutions, or less than 2 amino acid substitutions relative to the original molecule. In a specific embodiment, the substitution is a conservative amino acid substitution made at one or more predicted non-essential amino acid residues. The variation allowed may be determined by systematically making insertions, deletions or substitutions of amino acids in the sequence and testing the resulting variants for activity exhibited by the full-length or mature native sequence.

[00349] Amino acid sequence insertions include amino- and/or carboxyl-terminal fusions ranging in length from one residue to polypeptides containing a hundred or more residues, as well as intrasequence insertions of single or multiple amino acid residues. Examples of terminal insertions include an antibody with an N-terminal methionyl residue. Other insertional variants of the antibody molecule include the fusion to the N- or C-terminus of the antibody to an enzyme (*e.g.,* for antibody-directed enzyme prodrug therapy) or a polypeptide which increases the serum half-life of the antibody.

[00350] Substantial modifications in the biological properties of the antibody are accomplished by selecting substitutions that differ significantly in their effect on maintaining (a) the structure of the polypeptide backbone in the area of the substitution, for example, as a sheet or helical conformation, (b) the charge or hydrophobicity of the molecule at the target site, or (c) the bulk of the side chain. Alternatively, conservative (*e.g.,* within an amino acid group with similar properties and/or sidechains) substitutions may be made, so as to maintain or not significantly change the properties. Amino acids may be grouped according to similarities in the properties of their side chains (see, *e.g.,* A. L. Lehninger, in *Biochemistry*, 2nd Ed., pp. 73-75, Worth Publishers, New York (1975)): (1) non-polar: Ala (A), Val (V), Leu (L), Ile (I), Pro (P), Phe (F), Trp (W), Met (M); (2) uncharged polar: Gly (G), Ser (S), Thr (T), Cys (C), Tyr (Y), Asn (N), Gln (Q); (3) acidic: Asp (D), Glu (E); and (4) basic: Lys (K), Arg (R), His(H).

[00351] Alternatively, naturally occurring residues may be divided into groups based on common side-chain properties: (1) hydrophobic: Norleucine, Met, Ala, Val, Leu, Ile; (2) neutral hydrophilic: Cys, Ser, Thr, Asn, Gln; (3) acidic: Asp, Glu; (4) basic: His, Lys, Arg; (5) residues that influence chain orientation: Gly, Pro; and (6) aromatic: Trp, Tyr, Phe.

[00352] Non-conservative substitutions entail exchanging a member of one of these classes for another class. Such substituted residues also may be introduced into the conservative substitution sites or, into the remaining (non-conserved) sites. Accordingly, in one embodiment, an antibody or fragment thereof that binds to a GFRAL epitope comprises an amino acid sequence that is at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99% identical to the amino acid sequence of a murine monoclonal antibody described herein. In one embodiment, an antibody or fragment thereof that binds to a GFRAL epitope comprises an amino acid sequence that is at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99% identical to an amino acid sequence depicted in Tables 1-24. In yet another embodiment, an antibody or fragment thereof that binds to a GFRAL epitope comprises a VH CDR and/or a VL CDR amino acid sequence that is at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99% identical to a VH CDR amino acid sequence depicted in Tables 1-24 and/or a VL CDR amino acid sequence depicted in Tables 1-24. The variations can be made using methods known in the art such as oligonucleotide-mediated (site-directed) mutagenesis, alanine scanning, and PCR mutagenesis. Site-directed mutagenesis (see, *e.g.,* Carter *et al.*, *Nucl. Acids Res.*, 13:4331 (1986); Zoller *et al.*, *Nucl. Acids Res.*, 10:6487 (1987)), cassette mutagenesis (see, *e.g.,* Wells *et al.*, *Gene*, 34:315 (1985)), restriction selection mutagenesis (see, *e.g.,* Wells *et al.*, *Philos. Trans. R. Soc. London SerA*, 317:415 (1986)) or other known techniques can be performed on the cloned DNA to produce the anti-GFRAL antibody variant DNA.

[00353] Any cysteine residue not involved in maintaining the proper conformation of the anti-GFRAL antibody also may be substituted, for example, with with another amino acid such as alanine or serine, to improve the oxidative stability of the molecule and prevent aberrant crosslinking. Conversely, cysteine bond(s) may be added to the anti-GFRAL antibody to improve its stability (*e.g.,* where the antibody is an antibody fragment such as an Fv fragment).

[00354] In some embodiments, an anti-GFRAL antibody molecule of the present disclosure is a "de-immunized" antibody. A "de-immunized" anti-GFRAL antibody is an antibody derived from a humanized or chimeric anti-GFRAL antibody, that has one or more alterations in its amino acid sequence resulting in a reduction of immunogenicity of the antibody, compared to the respective original non-de-immunized antibody. One of the procedures for generating such antibody mutants involves the identification and removal of T-cell epitopes of the antibody molecule. In a first step, the immunogenicity of the antibody molecule can be determined by several methods, for example, by *in vitro* determination of T-cell epitopes or in silico prediction of such epitopes, as known in the art. Once the critical residues for T-cell epitope function have been identified, mutations can be made to remove immunogenicity and retain antibody activity. For review, see, for example, Jones *et al.*, *Methods in Molecular Biology* 525: 405-423, 2009.

1. *In vitro* Affinity Maturation

[00355] In some embodiments, antibody variants having an improved property such as affinity, stability, or expression level as compared to a parent antibody may be prepared by *in vitro* affinity maturation. Like the natural prototype, *in vitro* affinity maturation is based on the principles of mutation and selection. Libraries of antibodies are displayed as Fab, scFv or V domain fragments either on the surface of an organism (*e.g.,* phage, bacteria, yeast or mammalian cell) or in association (*e.g.,* covalently or non-covalently) with their encoding mRNA or DNA. Affinity selection of the displayed antibodies allows isolation of organisms or complexes carrying the genetic information encoding the antibodies. Two or three rounds of mutation and selection using display methods such as phage display usually results in antibody fragments with affinities in the low nanomolar range. Preferred affinity matured antibodies will have nanomolar or even picomolar affinities for the target antigen.

[00356] Phage display is a widepread method for display and selection of antibodies. The antibodies are displayed on the surface of Fd or M13 bacteriophages as fusions to the bacteriophage coat protein. Selection involves exposure to antigen to allow phage-displayed antibodies to bind their targets, a process referred to as "panning." Phage bound to antigen are recovered and infected in bacteria to produce phage for further rounds of selection. For review,

see, for example, Hoogenboom, *Methods. Mol. Biol.* 178: 1-37, 2002; Bradbury and Marks, *J. Immuno. Methods* 290: 29-49, 2004).

[00357] In a yeast display system (see, *e.g.,* Boder *et al.*, *Nat. Biotech.* 15: 553–57, 1997; Chao *et al.*, *Nat. Protocols* 1:755-768, 2006), the antibody may be displayed as single-chain variable fusions (scFv) in which the heavy and light chains are connected by a flexible linker. The scFv is fused to the adhesion subunit of the yeast agglutinin protein Aga2p, which attaches to the yeast cell wall through disulfide bonds to Aga1p. Display of a protein via Aga2p projects the protein away from the cell surface, minimizing potential interactions with other molecules on the yeast cell wall. Magnetic separation and flow cytometry are used to screen the library to select for antibodies with improved affinity or stability. Binding to a soluble antigen of interest is determined by labeling of yeast with biotinylated antigen and a secondary reagent such as streptavidin conjugated to a fluorophore. Variations in surface expression of the antibody can be measured through immunofluorescence labeling of either the hemagglutinin or c-Myc epitope tag flanking the scFv. Expression has been shown to correlate with the stability of the displayed protein, and thus antibodies can be selected for improved stability as well as affinity (see, *e.g.,* Shusta *et al.*, *J. Mol. Biol.* 292: 949-956, 1999). An additional advantage of yeast display is that displayed proteins are folded in the endoplasmic reticulum of the eukaryotic yeast cells, taking advantage of endoplasmic reticulum chaperones and quality-control machinery. Once maturation is complete, antibody affinity can be conveniently 'titrated' while displayed on the surface of the yeast, eliminating the need for expression and purification of each clone. A theoretical limitation of yeast surface display is the potentially smaller functional library size than that of other display methods; however, a recent approach uses the yeast cells' mating system to create combinatorial diversity estimated to be 10^{14} in size (see, *e.g.,* US Patent Publication 2003/0186,374; Blaise *et al.*, *Gene* 342: 211–218, 2004).

[00358] In ribosome display, antibody-ribosome-mRNA (ARM) complexes are generated for selection in a cell-free system. The DNA library coding for a particular library of antibodies is genetically fused to a spacer sequence lacking a stop codon. This spacer sequence, when translated, is still attached to the peptidyl tRNA and occupies the ribosomal tunnel, and thus allows the protein of interest to protrude out of the ribosome and fold. The resulting complex of mRNA, ribosome, and protein

can bind to surface-bound ligand, allowing simultaneous isolation of the antibody and its encoding mRNA through affinity capture with the ligand. The ribosome-bound mRNA is then reversed transcribed back into cDNA, which can then undergo mutagenesis and be used in the next round of selection (see, *e.g.,* Fukuda *et al.*, *Nucleic Acids Res.* 34, e127, 2006). In mRNA display, a covalent bond between antibody and mRNA is established using puromycin as an adaptor molecule (Wilson *et al.*, *Proc. Natl. Acad. Sci. USA* 98, 3750–3755, 2001).

[00359] As these methods are performed entirely *in vitro*, they provide two main advantages over other selection technologies. First, the diversity of the library is not limited by the transformation efficiency of bacterial cells, but only by the number of ribosomes and different mRNA molecules present in the test tube. Second, random mutations can be introduced easily after each selection round, for example, by non-proofreading polymerases, as no library must be transformed after any diversification step.

[00360] Diversity may be introduced into the CDRs or the whole V genes of the antibody libraries in a targeted manner or via random introduction. The former approach includes sequentially targeting all the CDRs of an antibody via a high or low level of mutagenesis or targeting isolated hot spots of somatic hypermutations (see, *e.g.,* Ho, *et al.*, *J. Biol. Chem.* 280: 607–617, 2005) or residues suspected of affecting affinity on experimental basis or structural reasons. Random mutations can be introduced throughout the whole V gene using *E. coli* mutator strains, error-prone replication with DNA polymerases (see, *e.g.,* Hawkins *et al.*, *J. Mol. Biol.* 226: 889-896, 1992) or RNA replicases. Diversity may also be introduced by replacement of regions that are naturally diverse via DNA shuffling or similar techniques (see, *e.g.,* Lu *et al.*, *J. Biol. Chem.* 278: 43496-43507, 2003; US Pat. No. 5,565,332; US Pat. No. 6,989,250). Alternative techniques target hypervariable loops extending into framework-region residues (see, *e.g.,* Bond *et al.*, *J. Mol. Biol.* 348: 699-709, 2005) employ loop deletions and insertions in CDRs or use hybridization-based diversification (see, *e.g.,* US Patent Publication No. 2004/0005709). Additional methods of generating diversity in CDRs are disclosed, for example, in US Pat. No. 7,985,840.

[00361] Screening of the libraries can be accomplished by various techniques known in the art. For example, GFRAL can be immobilized onto solid supports,

columns, pins or cellulose/poly(vinylidene fluoride) membranes/ other filters, expressed on host cells affixed to adsorption plates or used in cell sorting, or conjugated to biotin for capture with streptavidin-coated beads, or used in any other method for panning display libraries.

[00362] For review of *in vitro* affinity maturation methods, see, *e.g.,* Hoogenboom, *Nature Biotechnology* 23: 1105-1116, 2005 and Quiroz and Sinclair, Revista Ingeneria Biomedia 4: 39-51, 2010 and references therein.

2. Modifications of Anti-GFRAL Antibodies

[00363] Covalent modifications of anti-GFRAL antibodies are included within the scope of the present disclosure. Covalent modifications include reacting targeted amino acid residues of an anti-GFRAL antibody with an organic derivatizing agent that is capable of reacting with selected side chains or the N- or C- terminal residues of the anti-GFRAL antibody. Other modifications include deamidation of glutaminyl and asparaginyl residues to the corresponding glutamyl and aspartyl residues, respectively, hydroxylation of proline and lysine, phosphorylation of hydroxyl groups of seryl or threonyl residues, methylation of the α-amino groups of lysine, arginine, and histidine side chains (see, *e.g.,* T.E. Creighton, *Proteins: Structure and Molecular Properties*, W.H. Freeman & Co., San Francisco, pp. 79-86 (1983)), acetylation of the N-terminal amine, and amidation of any C-terminal carboxyl group.

[00364] Other types of covalent modification of the anti-GFRAL antibody included within the scope of this present disclosure include altering the native glycosylation pattern of the antibody or polypeptide (see, *e.g.,* Beck *et al.*, *Curr. Pharm. Biotechnol.* 9: 482-501, 2008; Walsh, *Drug Discov. Today* 15: 773-780, 2010), and linking the antibody to one of a variety of nonproteinaceous polymers, *e.g.,* polyethylene glycol (PEG), polypropylene glycol, or polyoxyalkylenes, in the manner set forth, for example, in U.S. Patent Nos. 4,640,835; 4,496,689; 4,301,144; 4,670,417; 4,791,192 or 4,179,337.

[00365] An anti-GFRAL antibody of the present disclosure may also be modified to form chimeric molecules comprising an anti-GFRAL antibody fused to another, heterologous polypeptide or amino acid sequence, for example, an epitope tag (see, *e.g.,* Terpe, *Appl. Microbiol. Biotechnol.* 60: 523-533, 2003) or the Fc region of an IgG molecule (see, *e.g.,* Aruffo, "Immunoglobulin fusion proteins" in Antibody Fusion

Proteins, S.M. Chamow and A. Ashkenazi, eds., Wiley-Liss, New York, 1999, pp. 221-242).

[00366] Also provided herein are fusion proteins comprising an antibody provided herein that binds to a GFRAL antigen and a heterologous polypeptide. In some embodiments, the heterologous polypeptide to which the antibody is fused is useful for targeting the antibody to cells having cell surface-expressed GFRAL.

[00367] Also provided herein are panels of antibodies that bind to a GFRAL antigen. In specific embodiments, panels of antibodies have different association rate constants different dissociation rate constants, different affinities for GFRAL antigen, and/or different specificities for a GFRAL antigen. In some embodiments, the panels comprise or consist of about 10, about 25, about 50, about 75, about 100, about 125, about 150, about 175, about 200, about 250, about 300, about 350, about 400, about 450, about 500, about 550, about 600, about 650, about 700, about 750, about 800, about 850, about 900, about 950, or about 1000 antibodies or more. Panels of antibodies can be used, for example, in 96 well or 384 well plates, such as for assays such as ELISAs.

Preparation of Anti-GFRAL Antibodies

[00368] Anti-GFRAL antibodies may be produced by culturing cells transformed or transfected with a vector containing anti-GFRAL antibody-encoding nucleic acids. Polynucleotide sequences encoding polypeptide components of the antibody of the present disclosure can be obtained using standard recombinant techniques. Desired polynucleotide sequences may be isolated and sequenced from antibody producing cells such as hybridomas cells. Alternatively, polynucleotides can be synthesized using nucleotide synthesizer or PCR techniques. Once obtained, sequences encoding the polypeptides are inserted into a recombinant vector capable of replicating and expressing heterologous polynucleotides in host cells. Many vectors that are available and known in the art can be used for the purpose of the present disclosure. Selection of an appropriate vector will depend mainly on the size of the nucleic acids to be inserted into the vector and the particular host cell to be transformed with the vector. Host cells suitable for expressing antibodies of the present disclosure include prokaryotes such as Archaebacteria and Eubacteria, including Gram-negative or Gram-positive organisms, eukaryotic microbes such as

filamentous fungi or yeast, invertebrate cells such as insect or plant cells, and vertebrate cells such as mammalian host cell lines. Host cells are transformed with the above-described expression vectors and cultured in conventional nutrient media modified as appropriate for inducing promoters, selecting transformants, or amplifying the genes encoding the desired sequences. Antibodies produced by the host cells are purified using standard protein purification methods as known in the art.

[00369] Methods for antibody production including vector construction, expression and purification are further described, in Plückthun *et al.*, (1996) in *Antibody Engineering: Producing antibodies in Escherichia coli: From PCR to fermentation* (McCafferty, J., Hoogenboom, H. R., and Chiswell, D. J., eds), 1 Ed., pp. 203-252, IRL Press, Oxford; Kwong, K. & Rader, C., *E. coli* expression and purification of Fab antibody fragments, Current protocols in protein science editorial board John E Coligan *et al.*, Chapter 6, Unit 6.10 (2009); Tachibana and Takekoshi, "Production of Antibody Fab Fragments in Escherischia coli," in *Antibody Expression and Production*, M. Al-Rubeai, Ed., Springer, New York, 2011; *Therapeutic Monoclonal Antibodies: From Bench to Clinic* (ed Z. An), John Wiley & Sons, Inc., Hoboken, NJ, USA.

[00370] It is, of course, contemplated that alternative methods, which are well known in the art, may be employed to prepare anti-GFRAL antibodies. For instance, the appropriate amino acid sequence, or portions thereof, may be produced by direct peptide synthesis using solid-phase techniques (see, *e.g.,* Stewart *et al.*, *Solid-Phase Peptide Synthesis*, W.H. Freeman Co., San Francisco, CA (1969); Merrifield, *J. Am. Chem. Soc.*, 85:2149-2154 (1963)). *In vitro* protein synthesis may be performed using manual techniques or by automation. Various portions of the anti-GFRAL antibody may be chemically synthesized separately and combined using chemical or enzymatic methods to produce the desired anti-GFRAL antibody. Alternatively, antibodies may be purified from cells or bodily fluids, such as milk, of a transgenic animal engineered to express the antibody, as disclosed, for example, in US Pat. No. 5,545,807 and US Pat. No. 5,827,690.

Immunoconjugates

[00371] The present disclosure also provides conjugates comprising any one of the anti-GFRAL antibodies of the present disclosure covalently bound, including by a synthetic linker, to one or more non-antibody agents.

[00372] A variety of radioactive isotopes are available for the production of radioconjugated antibodies. Examples include At^{211}, I4, I4, Y4, Re4, Re4, Sm4, Bi4, P4, Pb4 and radioactive isotopes of Lu. When the conjugate is used for detection, it may comprise a radioactive atom for scintigraphic studies, for example tc4 or I4, or a spin label for nuclear magnetic resonance (NMR) imaging (also known as magnetic resonance imaging, MRI), such as iodine-123 again, iodine-131, indium-111, fluorine-19, carbon-13, nitrogen-15, oxygen-17, gadolinium, manganese or iron. The radioisotopes may be incorporated in the conjugate in known ways as described, *e.g.,* in Reilly, "The radiochemistry of monoclonal antibodies and peptides," in Monoclonal Antibody and Peptide-Targeted Radiotherapy of Cancer, R.M. Reilly, ed., Wiley, Hoboken N.J., 2010.

[00373] In some embodiments, antibodies provided herein are conjugated or recombinantly fused to a diagnostic, detectable or therapeutic agent or any other molecule. The conjugated or recombinantly fused antibodies can be useful, for example, for monitoring or prognosing the onset, development, progression and/or severity of a β-cell defective disease, disorder or condition as part of a clinical testing procedure, such as determining the efficacy of a particular therapy.

[00374] Such diagnosis and detection can accomplished, for example, by coupling the antibody to detectable substances including, but not limited to, various enzymes, such as, but not limited to, horseradish peroxidase, alkaline phosphatase, beta-galactosidase, or acetylcholinesterase; prosthetic groups, such as, but not limited to, streptavidin/biotin and avidin/biotin; fluorescent materials, such as, but not limited to, umbelliferone, fluorescein, fluorescein isothiocynate, rhodamine, dichlorotriazinylamine fluorescein, dansyl chloride or phycoerythrin; luminescent materials, such as, but not limited to, luminol; bioluminescent materials, such as but not limited to, luciferase, luciferin, and aequorin; chemiluminescent material, such as but not limited to, an acridinium based compound or a HALOTAG; radioactive materials, such as, but not limited to, iodine (^{131}I, ^{125}I, ^{123}I, and ^{121}I,), carbon (^{14}C),

sulfur (^{35}S), tritium (^{3}H), indium (^{115}In, ^{113}In, ^{112}In, and ^{111}In,), technetium (^{99}Tc), thallium (^{201}Ti), gallium (^{68}Ga, ^{67}Ga), palladium (^{103}Pd), molybdenum (^{99}Mo), xenon (^{133}Xe), fluorine (^{18}F), ^{153}Sm, ^{177}Lu, ^{159}Gd, ^{149}Pm, ^{140}La, ^{175}Yb, ^{166}Ho, ^{90}Y, ^{47}Sc, ^{186}Re, ^{188}Re, ^{142}Pr, ^{105}Rh, ^{97}Ru, ^{68}Ge, ^{57}Co, ^{65}Zn, ^{85}Sr, ^{32}P, ^{153}Gd, ^{169}Yb, ^{51}Cr, ^{54}Mn, ^{75}Se, ^{113}Sn, and ^{117}Sn; and positron emitting metals using various positron emission tomographies, and non-radioactive paramagnetic metal ions.

[00375] Also provided herein are antibodies that are conjugated or recombinantly fused to a therapeutic moiety (or one or more therapeutic moieties), as well as uses thereof. The antibody may be conjugated or recombinantly fused to a therapeutic moiety, including a cytotoxin such as a cytostatic or cytocidal agent, a therapeutic agent or a radioactive metal ion such as alpha-emitters. A cytotoxin or cytotoxic agent includes any agent that is detrimental to cells.

[00376] Further, an antibody provided herein may be conjugated or recombinantly fused to a therapeutic moiety or drug moiety that modifies a given biological response. Therapeutic moieties or drug moieties are not to be construed as limited to classical chemical therapeutic agents. For example, the drug moiety may be a protein, peptide, or polypeptide possessing a desired biological activity. Such proteins may include, for example, a toxin such as abrin, ricin A, pseudomonas exotoxin, cholera toxin, or diphtheria toxin; a protein such as tumor necrosis factor, γ-interferon, α-interferon, nerve growth factor, platelet derived growth factor, tissue plasminogen activator, an apoptotic agent, *e.g.,* TNF-γ, TNF-γ, AIM I (see, *e.g.,* International Publication No. WO 97/33899), AIM II (see, *e.g.,* International Publication No. WO 97/34911), Fas Ligand (see, *e.g.,*Takahashi *et al.*, 1994, J. Immunol., 6:1567-1574), and VEGF (see, *e.g.,* International Publication No. WO 99/23105), an anti-angiogenic agent, including, for example angiostatin, endostatin or a component of the coagulation pathway (*e.g.,* tissue factor); or, a biological response modifier such as, for example, a lymphokine (*e.g.,* interferon gamma, interleukin-1 ("IL-1"), interleukin-2 ("IL-2"), interleukin-5 ("IL-5"), interleukin-6 ("IL-6"), interleukin-7 ("IL-7"), interleukin 9 ("IL-9"), interleukin-10 ("IL-10"), interleukin-12 ("IL-12"), interleukin-15 ("IL-15"), interleukin-23 ("IL-23"), granulocyte macrophage colony stimulating factor ("GM-CSF"), and granulocyte colony stimulating factor ("G-CSF")), or a growth factor (*e.g.,* growth hormone ("GH")), or a coagulation agent (*e.g.,* calcium, vitamin K, tissue factors, such as but not limited to, Hageman factor (factor

XII), high-molecular-weight kininogen (HMWK), prekallikrein (PK), coagulation proteins-factors II (prothrombin), factor V, XIIa, VIII, XIIIa, XI, XIa, IX, IXa, X, phospholipid, and fibrin monomer).

[00377] Also provided herein are antibodies that are recombinantly fused or chemically conjugated (covalent or non-covalent conjugations) to a heterologous protein or polypeptide (or fragment thereof, for example, to a polypeptide of about 10, about 20, about 30, about 40, about 50, about 60, about 70, about 80, about 90 or about 100 amino acids) to generate fusion proteins, as well as uses thereof. In particular, provided herein are fusion proteins comprising an antigen-binding fragment of an antibody provided herein (*e.g.,* a Fab fragment, Fd fragment, Fv fragment, $F(ab)_2$ fragment, a VH domain, a VH CDR, a VL domain or a VL CDR) and a heterologous protein, polypeptide, or peptide. In one embodiment, the heterologous protein, polypeptide, or peptide that the antibody is fused to is useful for targeting the antibody to a particular cell type, such as a cell that expresses GFRAL. For example, an antibody that binds to a cell surface receptor expressed by a particular cell type (*e.g.,* an immune cell) may be fused or conjugated to a modified antibody provided herein.

[00378] In addition, an antibody provided herein can be conjugated to therapeutic moieties such as a radioactive metal ion, such as alpha-emitters such as ^{213}Bi or macrocyclic chelators useful for conjugating radiometal ions, including but not limited to, ^{131}In, ^{131}LU, ^{131}Y, ^{131}Ho, ^{131}Sm, to polypeptides. In certain embodiments, the macrocyclic chelator is 1,4,7,10-tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid (DOTA) which can be attached to the antibody via a linker molecule. Such linker molecules are commonly known in the art and described, for example, in Denardo *et al.*, 1998, *Clin Cancer Res.* 4(10):2483-90; Peterson *et al.*, 1999, *Bioconjug. Chem.* 10(4):553-7; and Zimmerman *et al.*, 1999, *Nucl. Med. Biol.* 26(8):943-50.

[00379] Moreover, antibodies provided herein can be fused to marker or "tag" sequences, such as a peptide to facilitate purification. In specific embodiments, the marker or tag amino acid sequence is a hexa-histidine peptide, such as the tag provided in a pQE vector (see, *e.g.,* QIAGEN, Inc.), among others, many of which are commercially available. For example, as described in Gentz *et al.*, 1989, Proc. Natl. Acad. Sci. USA 86:821-824, hexa-histidine provides for convenient purification of the fusion protein. Other peptide tags useful for purification include, but are not

limited to, the hemagglutinin ("HA") tag, which corresponds to an epitope derived from the influenza hemagglutinin protein (Wilson *et al.*, 1984, Cell 37:767), and the "FLAG" tag.

[00380] Methods for fusing or conjugating therapeutic moieties (including polypeptides) to antibodies are well known, (see, *e.g.,* Arnon *et al.*, "Monoclonal Antibodies For Immunotargeting Of Drugs In Cancer Therapy", in Monoclonal Antibodies And Cancer Therapy, Reisfeld *et al.* (eds.), pp. 243-56 (Alan R. Liss, Inc. 1985); Hellstrom *et al.*, "Antibodies For Drug Delivery", in Controlled Drug Delivery (2nd Ed.), Robinson *et al.* (eds.), pp. 623-53 (Marcel Dekker, Inc. 1987); Thorpe, "Antibody Carriers Of Cytotoxic Agents In Cancer Therapy: A Review", in Monoclonal Antibodies 84: Biological And Clinical Applications, Pinchera *et al.* (eds.), pp. 475-506 (1985); "Analysis, Results, And Future Prospective Of The Therapeutic Use Of Radiolabeled Antibody In Cancer Therapy", in Monoclonal Antibodies For Cancer Detection And Therapy, Baldwin *et al.* (eds.), pp. 303-16 (Academic Press 1985), Thorpe *et al.*, 1982, Immunol. Rev. 62:119-58; U.S. Pat. Nos. 5,336,603, 5,622,929, 5,359,046, 5,349,053, 5,447,851, 5,723,125, 5,783,181, 5,908,626, 5,844,095, and 5,112,946; EP 307,434; EP 367,166; EP 394,827; PCT publications WO 91/06570, WO 96/04388, WO 96/22024, WO 97/34631, and WO 99/04813; Ashkenazi *et al.*, Proc. Natl. Acad. Sci. USA, 88: 10535-10539, 1991; Traunecker *et al.*, Nature, 331:84-86, 1988; Zheng *et al.*, J. Immunol., 154:5590-5600, 1995; Vil *et al.*, Proc. Natl. Acad. Sci. USA, 89:11337-11341, 1992).

[00381] Fusion proteins may be generated, for example, through the techniques of gene-shuffling, motif-shuffling, exon-shuffling, and/or codon-shuffling (collectively referred to as "DNA shuffling"). DNA shuffling may be employed to alter the activities of anti-GFRAL antibodies as provided herein, including, for example, antibodies with higher affinities and lower dissociation rates (see, *e.g.,* U.S. Patent Nos. 5,605,793, 5,811,238, 5,830,721, 5,834,252, and 5,837,458; Patten *et al.*, 1997, Curr. Opinion Biotechnol. 8:724-33; Harayama, 1998, Trends Biotechnol. 16(2):76-82; Hansson *et al.*, 1999, J. Mol. Biol. 287:265-76; and Lorenzo and Blasco, 1998, Biotechniques 24(2):308- 313). Antibodies, or the encoded antibodies, may be altered by being subjected to random mutagenesis by error-prone PCR, random nucleotide insertion or other methods prior to recombination. A polynucleotide encoding an antibody

provided herein may be recombined with one or more components, motifs, sections, parts, domains, fragments, *etc.* of one or more heterologous molecules.

[00382] An antibody provided herein can also be conjugated to a second antibody to form an antibody heteroconjugate as described, for example, in U.S. Patent No. 4,676,980.

[00383] The therapeutic moiety or drug conjugated or recombinantly fused to an antibody provided herein that binds to GFRAL (*e.g.,* a GFRAL polypeptide, fragment, epitope) should be chosen to achieve the desired prophylactic or therapeutic effect(s). In certain embodiments, the antibody is a modified antibody. A clinician or other medical personnel may consider, for example, the following when deciding on which therapeutic moiety or drug to conjugate or recombinantly fuse to an antibody provided herein: the nature of the disease, the severity of the disease, and the condition of the subject.

[00384] Antibodies that bind to GFRAL as provided herein may also be attached to solid supports, which are particularly useful for immunoassays or purification of the target antigen. Such solid supports include, but are not limited to, glass, cellulose, polyacrylamide, nylon, polystyrene, polyvinyl chloride or polypropylene.

[00385] The linker may be a "cleavable linker" facilitating release of the conjugated agent in the cell, but non-cleavable linkers are also contemplated herein. Linkers for use in the conjugates of the present disclosure include without limitation acid labile linkers (*e.g.,* hydrazone linkers), disulfide-containing linkers, peptidase-sensitive linkers (*e.g.,* peptide linkers comprising amino acids, for example, valine and/or citrulline such as citrulline-valine or phenylalanine-lysine), photolabile linkers, dimethyl linkers (see, *e.g.,* Chari *et al.*, *Cancer Research* 52:127-131 (1992); U.S. Patent No. 5,208,020), thioether linkers, or hydrophilic linkers designed to evade multidrug transporter-mediated resistance (see, *e.g.,* Kovtun *et al.*, *Cancer Res.* 70: 2528-2537, 2010).

[00386] Conjugates of the antibody and agent may be made using a variety of bifunctional protein coupling agents such as BMPS, EMCS, GMBS, HBVS, LC-SMCC, MBS, MPBH, SBAP, SIA, SIAB, SMCC, SMPB, SMPH, sulfo-EMCS, sulfo-GMBS, sulfo-KMUS, sulfo-MBS, sulfo-SIAB, sulfo-SMCC, and sulfo-SMPB, and SVSB (succinimidyl-(4-vinylsulfone)benzoate). The present disclosure further

contemplates that conjugates of antibodies and agents may be prepared using any suitable methods as disclosed in the art, (see, *e.g.,* in *Bioconjugate Techniques*, 2nd Ed., G.T. Hermanson, ed., Elsevier, San Francisco, 2008).

[00387] Conventional conjugation strategies for antibodies and agents have been based on random conjugation chemistries involving the ε-amino group of Lys residues or the thiol group of Cys residues, which results in heterogenous conjugates. Recently developed techniques allow site-specific conjugation to antibodies, resulting in homogeneous loading and avoiding conjugate subpopulations with altered antigen-binding or pharmacokinetics. These include engineering of "thiomabs" comprising cysteine substitutions at positions on the heavy and light chains that provide reactive thiol groups and do not disrupt immunoglobulin folding and assembly or alter antigen binding (see, *e.g.,* Junutula *et al.*, *J. Immunol. Meth.* 332: 41-52 (2008); Junutula *et al.*, *Nat. Biotechnol.* 26: 925-932, 2008). In another method, selenocysteine is cotranslationally inserted into an antibody sequence by recoding the stop codon UGA from termination to selenocysteine insertion, allowing site specific covalent conjugation at the nucleophilic selenol group of selenocysteine in the presence of the other natural amino acids (see, *e.g.,*Hofer *et al.*, *Proc. Natl. Acad. Sci. USA* 105: 12451-12456 (2008); Hofer *et al.*, *Biochemistry* 48(50): 12047-12057, 2009).

Pharmaceutical Formulations

[00388] Anti-GFRAL antibodies of the present disclosure may be administered by any route appropriate to the disease, disorder or condition to be treated. The antibody will typically be administered parenterally, for example, infusion, subcutaneous, intramuscular, intravenous, intradermal, intrathecal and epidural. The antibody dose will vary, including depending on the nature and/or severity of the disease or disorder as well as the condition of the subject, may include doses between 1mg and 100 mg. Doses may also include those between 1 mg/kg and 15 mg/kg. In some embodiments, the dose is between about 5 mg/kg and about 7.5 mg/kg. In some embodiments, the dose is about 5 mg/kg. In some embodiments, the dose is about 7.5 mg/kg. Flat doses selected from the group consisting of: (a) 375-400 mg every two weeks and (b) 550-600 mg every three weeks. In some embodiments, the flat dose is 375-400 mg every two weeks. In some embodiments, the flat dose is 550-600 mg every three weeks. In some embodiments the flat dose is

400 mg every two weeks. In some embodiments the flat dose is 600 mg every three weeks. In some embodiments of sequential dosing, a first dose and a second dose are each between 1 mg/kg and 15 mg/kg with the second dose following the first does by between 1 and 4 weeks. In some embodiments, the first dose and the second dose are each between 5 mg/kg and 7.5 mg/kg and the second dose follows the first dose by between 2 and 3 weeks. In some embodiments, the first dose and the second dose are each 5 mg/kg and the second dose follows the first dose by 2 weeks. In some embodiments, the first dose and the second dose are each 7.5 mg/kg and the second dose follows the first dose by 3 weeks.

[00389] For treating diseases, disorders or conditions, the antibody in some embodiments is administered via intravenous infusion. The dosage administered via infusion is in the range of about 1 $\mu g/m^2$ to about 10,000 $\mu g/m^2$ per dose, generally one dose per week for a total of one, two, three or four doses. Alternatively, the dosage range is of about 1 $\mu g/m^2$ to about 1000 $\mu g/m^2$, about 1 $\mu g/m^2$ to about 800 $\mu g/m^2$, about 1 $\mu g/m^2$ to about 600 $\mu g/m^2$, about 1 $\mu g/m^2$ to about 400 $\mu g/m^2$; alternatively, about 10 $\mu g/m^2$ to about 500 $\mu g/m^2$, about 10 $\mu g/m^2$ to about 300 $\mu g/m^2$, about 10 $\mu g/m^2$ to about 200 $\mu g/m^2$, and about 1 $\mu g/m^2$ to about 200 $\mu g/m^2$. The dose may be administered once per day, once per week, multiple times per week, but less than once per day, multiple times per month but less than once per day, multiple times per month but less than once per week, once per month or intermittently to relieve or alleviate symptoms of the disease, disorder, or condition. Administration may continue at any of the disclosed intervals until amelioration of the disease, disorder or condition, or amelioration of symptoms of the disease, disorder or condition being treated. Administration may continue after remission or relief of symptoms is achieved where such remission or relief is prolonged by such continued administration.

[00390] In one aspect, the present disclosure further provides pharmaceutical formulations comprising at least one anti-GFRAL antibody of the present disclosure. In some embodiments, a pharmaceutical formulation comprises 1) an anti-GFRAL antibody, and 2) a pharmaceutically acceptable carrier. In some embodiments, a pharmaceutical formulation comprises 1) an anti-GFRAL antibody and/or an immunoconjugate thereof, and optionally, 2) at least one additional therapeutic agent.

[00391] Pharmaceutical formulations comprising an antibody is prepared for storage by mixing the antibody having the desired degree of purity with optional physiologically acceptable carriers, excipients or stabilizers (see, *e.g.,* Remington's Pharmaceutical Sciences 16th edition, Osol, A. Ed. (1980)) in the form of aqueous solutions or lyophilized or other dried formulations. The formulations herein may also contain more than one active compound as necessary for the particular disease, disorder or condition (*e.g.*, a particular indication) being treated, preferably those with complementary activities that do not adversely affect each other. For example, in addition to an anti-GFRAL antibody, it may be desirable to include in the one formulation, an additional antibody, *e.g.,* a second anti-GFRAL antibody which binds a different epitope on the GFRAL polypeptide, or an antibody to some other target. Alternatively, or additionally, the composition may further comprise another agent, including, for example, a chemotherapeutic agent, cytotoxic agent, cytokine, growth inhibitory agent, anti-hormonal agent, and/or cardioprotectant. In some embodiments the formulation includes an alkylating agent (*e.g.,* chlorambucil, bendamustine hydrochloride or cyclophosphamide) a nucleoside analog (*e.g.,* fludurabine, pentostatin, cladribine or cytarabine) a corticosteroid (*e.g.,* prednisone, prednisolone or methylprednisolone), an immunomodulatory agent (*e.g.,* lenalidomide), an antibiotic (*e.g.,* doxorubicin, daunorubicin idarubicin or mitoxentrone), a synthetic flavon (*e.g.,* flavopiridol), a Bcl2 antagonist, (*e.g.,* oblimersen or ABT-263), a hypomethylating agent (*e.g.,* azacytidine or decitabine), an FLT3 inhibitor (*e.g.,* midostaurin, sorafenib and AC220). Such molecules are suitably present in combination in amounts that are effective for the purpose intended.

[00392] The antibodies of the present disclosure may be formulated in any suitable form for delivery to a target cell/tissue,for example, as microcapsules or macroemulsions (Remington's *Pharmaceutical Sciences*, 16th edition, Osol, A. Ed. (1980); Park *et al.*, *Molecules* 10: 146-161 (2005); Malik *et al.*, *Curr. Drug. Deliv.* 4: 141-151 (2007)); as sustained release formulations (Putney and Burke, *Nature Biotechnol.* 16: 153-157, (1998)) or in liposomes (Maclean *et al.*, *Int. J. Oncol.* 11: 235-332 (1997); Kontermann, *Curr. Opin. Mol. Ther.* 8: 39-45 (2006)).

[00393] An antibody provided herein can also be entrapped in microcapsule prepared, for example, by coacervation techniques or by interfacial polymerization,

for example, hydroxymethylcellulose or gelatin-microcapsule and poly-(methylmethacylate) microcapsule, respectively, in colloidal drug delivery systems (for example, liposomes, albumin microspheres, microemulsions, nano-particles and nanocapsules) or in macroemulsions. Such techniques are disclosed, for example, in Remington's Pharmaceutical Sciences (1990) Mack Publishing Co., Easton, PA.

[00394] Various delivery systems are known and can be used to administer a prophylactic or therapeutic agent (*e.g.,* an antibody that binds to GFRAL as described herein), including, but not limited to, encapsulation in liposomes, microparticles, microcapsules, recombinant cells capable of expressing the antibody, receptor-mediated endocytosis (see, *e.g.,* Wu and Wu, J. Biol. Chem. 262:4429-4432 (1987)), construction of a nucleic acid as part of a retroviral or other vector, etc. In another embodiment, a prophylactic or therapeutic agent, or a composition provided herein can be delivered in a controlled release or sustained release system. In one embodiment, a pump may be used to achieve controlled or sustained release (see, *e.g.,* Langer, supra; Sefton, 1987, CRC Crit. Ref. Biomed. Eng. 14:20; Buchwald *et al.*, 1980, Surgery 88:507; Saudek *et al.*, 1989, N. Engl. J. Med. 321:574). In another embodiment, polymeric materials can be used to achieve controlled or sustained release of a prophylactic or therapeutic agent (*e.g.,* an antibody that binds to GFRAL as described herein) or a composition of the invention (see, *e.g.,* Medical Applications of Controlled Release, Langer and Wise (eds.), CRC Pres., Boca Raton, Florida (1974); Controlled Drug Bioavailability, Drug Product Design and Performance, Smolen and Ball (eds.), Wiley, New York (1984); Ranger and Peppas, 1983, J., Macromol. Sci. Rev. Macromol. Chem. 23:61; see also *Levy et al.*, 1985, Science 228:190; During et al., 1989, Ann. Neurol. 25:351; Howard et al., 1989, J. Neurosurg. 7 1:105); U.S. Patent No. 5,679,377; U.S. Patent No. 5,916,597; U.S. Patent No. 5,912,015; U.S. Patent No. 5,989,463; U.S. Patent No. 5,128,326; PCT Publication No. WO 99/15154; and PCT Publication No. WO 99/20253). Examples of polymers used in sustained release formulations include, but are not limited to, poly(2-hydroxy ethyl methacrylate), poly(methyl methacrylate), poly(acrylic acid), poly(ethylene-co-vinyl acetate), poly(methacrylic acid), polyglycolides (PLG), polyanhydrides, poly(N-vinyl pyrrolidone), poly(vinyl alcohol), polyacrylamide, poly(ethylene glycol), polylactides (PLA), poly(lactide-co-glycolides) (PLGA), and polyorthoesters. In one embodiment, the polymer used in a sustained

release formulation is inert, free of leachable impurities, stable on storage, sterile, and biodegradable.

[00395] In yet another embodiment, a controlled or sustained release system can be placed in proximity of the therapeutic target, for example, the nasal passages or lungs, thus requiring only a fraction of the systemic dose (see, *e.g.,* Goodson, in Medical Applications of Controlled Release, supra, vol. 2, pp. 115-138 (1984)). Controlled release systems are discussed, for example, by Langer (1990, Science 249:1527-1533). Any technique known to one of skill in the art can be used to produce sustained release formulations comprising one or more antibodies that bind to GFRAL as described herein. (See, *e.g.,* U.S. Patent No. 4,526,938, PCT publication WO 91/05548, PCT publication WO 96/20698, Ning et al., 1996, "Intratumoral Radioimmunotherapy of a Human Colon Cancer Xenograft Using a Sustained-Release Gel," Radiotherapy & Oncology 39:179- 189, Song et al., 1995, "Antibody Mediated Lung Targeting of Long-Circulating Emulsions," PDA Journal of Pharmaceutical Science & Technology 50:372-397, Cleek et al., 1997, "Biodegradable Polymeric Carriers for a bFGF Antibody for Cardiovascular Application," Pro. Int'l. Symp. Control. Rel. Bioact. Mater. 24:853-854, and Lam et al., 1997, "Microencapsulation of Recombinant Humanized Monoclonal Antibody for Local Delivery," Proc. Int'l. Symp. Control Rel. Bioact. Mater. 24:759-760).

[00396] Additional delivery systems can be used to administer a prophylactic or therapeutic agent (*e.g.*, an antibody that binds to GFRAL as described herein) including, but not limited to, injectable drug delivery devices. Injectable drug delivery devices for anti-GFRAL antibodies include, for example, hand-held devices or wearable devices. Hand-held devices useful for anti-GFRAL antibodies include autoinjectors, such as the FLEXIQ-DV (Elcam Medical) or PRO-JECT (Aptar Pharma) autoinjectors. Wearable devices useful for anti-GFRAL antibodies include, for example, on-body drug delivery systems, such as the NEULASTA drug delivery kit (Amgen). Injectable drug delivery devices for anti-GFRAL antibodies can contain the antibody as a prophyactic or therapeutic agent, for example, in prefilled syringes, cartridges or vials. Injectable drug delivery devices (*e.g.*, autoinjectors) and/or their containers (*e.g.*, syringes, cartridges or vials) for anti-GFRAL antibodies can be disposable. Exemplary injectable devices useful for anti-GFRAL antibodies are described in WO2014/081780.

[00397] In some embodiments, additional drug delivery systems can be used to administer a prophylactic or therapeutic agent (*e.g.*, an antibody that binds to GFRAL as described herein) including, but not limited to, osmotic pumps. Different types of osmotic pump systems for anti-GFRAL antibodies can be used, including, for example, single compartment systems, dual compartment systems, and multiple compartment systems. Exemplary osmotic pump systems useful for anti-GFRAL antibodies are described, for example, in Herrlich et al. (2012) Advanced Drug Delivery Reviews 64, 1617-1627. In some embodiments, the osmotic pump for anti-GFRAL antibodies can include implantable drug-dispensing osmotic pumps such as the DUROS pump.

THERAPEUTIC METHODS

[00398] An anti-GFRAL antibody of the present disclosure may be used in, for example, therapeutic methods.

[00399] In some embodiments, the present disclosure provides methods for treating or preventing a GDF15-mediated disease, disorder, or condition, wherein the method comprises administering an anti-GFRAL antibody or fragment thereof described herein to a subject suffering from a GDF15-mediated disease, disorder or condition. Additionally, the subject can be administered a pharmaceutical composition comprising an anti-GFRAL antibody or fragment thereof described herein.

[00400] In some embodiments, present disclosure provides a method to treat a subject suffering from involuntary weight loss. An example of a suitable subject may be one who is diagnosed with a wasting disease or cachexia. Suitable patients include those suffering from liver cirrhosis, hyperthyroidism, chronic kidney disease, Parkinson's disease, cancer, eating disorder (*e.g.*, anorexia nervosa), chronic inflammatory disease (*e.g.*, rheumatoid arthritis), sepsis or other forms of systemic inflammation, chronic obstructive pulmonary disease, AIDS, tuberculosis, and muscle wasting, such as muscular dystrophy or multiple sclerosis), or sarcopenia.

[00401] In some embodiments, the present disclosure also provides methods for preventing involuntary weight loss in a subject who may be at risk of involuntary weight loss due to a chronic disease, such as, liver cirrhosis, hyperthyroidism, chronic kidney disease, Parkinson's disease, cancer, eating disorder (*e.g.*, anorexia nervosa), chronic inflammatory disease (*e.g.*, rheumatoid arthritis), sepsis or other

forms of systemic inflammation, chronic obstructive pulmonary disease, AIDS, tuberculosis, and muscle wasting, such as muscular dystrophy or multiple sclerosis), or sarcopenia. Such subjects may include subjects who have elevated levels of GDF15, are undergoing treatment for cancer, and the like.

[00402] In some embodiments, the present disclosure provides a method to treat a subject suffering from cachexia. An example of a suitable subject is one who is diagnosed with cachexia. The present disclosure also provides methods for preventing involuntary weight loss in a subject who may be at risk of involuntary weight loss due to onset of cachexia. Such subjects include subjects who have elevated levels of GDF15, have cancer, are undergoing treatment for cancer, have an eating disorder, and the like.

[00403] Also disclosed is a method for modulating GDF15 activity in a patient having elevated GDF15 activity. As used herein, "elevated GDF15 activity" refers to increased activity or amount of GDF15 in a biological fluid of a subject in comparison to a normal subject. A number of conditions are associated with increased GDF15 serum level, wherein the increased GDF15 results in a number of symptoms such as appetite loss, weight loss, and the like. Examples of conditions associated with increased GDF15 serum level include cancer, *e.g.*, melanoma, gastric cancer, pancreatic cancer, prostate cancer; autoimmune diseases such as, arthritis and inflammation; cardiovascular diseases like atherosclerosis, heart failure, hypertension, myocardial infarction, chest pain, and cardiovascular events; metabolic diseases like anemia, cachexia, anorexia, kidney disease, and thalassemia, etc.

[00404] A subject having any of the above diseases, disorders or conditions is a suitable candidate for receiving an anti-GFRAL antibody or fragment thereof described herein, or a combination of a therapeutic agent and the anti-GFRAL antibody or fragment thereof.

[00405] Administering the subject an anti-GFRAL antibody or fragment thereof to such a subject can decrease or prevent one or more of the symptoms associated with a GDF15-mediated disease, disorder or condition. For example, administering an anti-GFRAL antibody or fragment thereof of the present disclosure can increase body weight and/or appetite in a subject. As another example, administering an anti-

GFRAL antibody or fragment thereof of the present disclosure can maintain body weight in a subject or reduce body weight loss is a subject.

[00406] In one aspect, methods are provided for treating a disease, disorder or condition comprising administering to an individual an effective amount of an anti-GFRAL antibody or fragment thereof. In certain embodiments, a method for treating a disease, disorder, or condition comprises administering to an individual an effective amount of a pharmaceutical formulation comprising an anti-GFRAL antibody and, optionally, at least one additional therapeutic agent, such as those described herein.

[00407] An anti-GFRAL antibody or fragment thereof can be administered to a human for therapeutic purposes. Moreover, an anti-GFRAL antibody or fragment thereof can be administered to a non-human mammal expressing GFRAL with which the antibody cross-reacts (*e.g.,* a primate, pig, rat, or mouse) for veterinary purposes or as an animal model of human disease. Regarding the latter, such animal models may be useful for evaluating the therapeutic efficacy of antibodies of the present disclosure (*e.g.,* testing of dosages and time courses of administration).

[00408] Antibodies of the present disclosure can be used either alone or in combination with other compositions in a therapy. For example, an anti-GFRAL antibody of the present disclosure may be co-administered with at least one additional therapeutic agent and/or adjuvant. In some embodiments, the additional compound is a therapeutic antibody other than an anti-GFRAL antibody.

[00409] Such combination therapies noted above encompass combined administration (where two or more therapeutic agents are included in the same or separate formulations), and separate administration, in which case, administration of an anti-GFRAL antibody or fragment thereof of the present disclosure can occur prior to, simultaneously, and/or following, administration of the additional therapeutic agent and/or adjuvant. Antibodies of the present disclosure can also be used in combination with additional therapeutic regimens including, without limitation, those described herein.

[00410] An anti-GFRAL antibody of the present disclosure (and any additional therapeutic agent or adjuvant) can be administered by any suitable means, including parenteral, subcutaneous, intraperitoneal, intrapulmonary, and intranasal, and, if desired for local treatment, intralesional administration. Parenteral infusions include

intramuscular, intravenous, intraarterial, intraperitoneal, or subcutaneous administration. In addition, the antibody or conjugate is suitably administered by pulse infusion, particularly with declining doses of the antibody or fragment thereof. Dosing can be by any suitable route, for example, by injections, such as intravenous or subcutaneous injections, depending in part on whether the administration is brief or chronic.

[00411] Antibodies of the present disclosure would be formulated, dosed, and administered in a fashion consistent with good medical practice. Factors for consideration in this context include the particular disorder being treated, the particular mammal being treated, the clinical condition of the individual subject, the cause of the disorder, the site of delivery of the agent, the method of administration, the scheduling of administration, and other factors known to medical practitioners. The anti-GFRAL antibody need not be, but is optionally formulated with one or more agents currently used to prevent or treat the disorder in question. The effective amount of such other agents depends on the amount of antibody or immunoconjugate present in the formulation, the type of disorder or treatment, and other factors discussed above. These are generally used in the same dosages and with administration routes as described herein, or about from 1 to 99% of the dosages described herein, or in any dosage and by any route that is empirically/clinically determined to be appropriate.

[00412] For the prevention or treatment of a disease, disorder, or condition, the appropriate dosage of an anti-GFRAL antibody or fragment thereof of the present disclosure (when used alone or in combination with one or more other additional therapeutic agents, such as agents described herein) will depend on the type of disease, disorder, or condition, to be treated, the type of antibody, the severity and course of the disease, disorder, or condition, whether the antibody is administered for preventive or therapeutic purposes, previous therapy, the subject's clinical history and response to the antibody, and the discretion of the attending physician. The anti-GFRAL antibody or fragment thereof is suitably administered to the subject at one time or over a series of treatments. Depending on the type and severity of the disease, about 1 µg/kg to 100 mg/kg (*e.g.,* 0.1mg/kg-20mg/kg, 1mg/kg-15mg/kg, etc.) of antibody or fragment thereof can be an initial candidate dosage for administration to the subject, whether, for example, by one or more separate

administrations, or by continuous infusion. One typical daily dosage might range from about 1 μg/kg to 100 mg/kg or more, depending on the factors mentioned above. For repeated administrations over several days or longer, depending on the condition, the treatment would generally be sustained until a desired suppression of disease symptoms occurs. Exemplary dosages of the antibody or fragment thereof may be in the range from about 0.05 mg/kg to about 10.0 mg/kg. Thus, one or more doses of about 0.5 mg/kg, 1.0 mg/kg, 2.0 mg/kg, 3.0 mg/kg, 4.0 mg/kg, 5.0 mg/kg, 6.0 mg/kg, 7.0 mg/kg, 8.0 mg/kg, 9.0 mg/kg, or 10.0 mg/kg (or any combination thereof) of antibody may be administered to the subject. Such doses may be administered intermittently, *e.g.,* every week or every three weeks (*e.g.,* such that the subject receives from about two to about twenty, or *e.g.,* about six doses of the antibody). An initial higher loading dose, followed by one or more lower doses may be administered. An exemplary dosing regimen comprises administering an initial loading dose, followed by a maintenance dose (*e.g.,* weekly) of the antibody or fragment thereof. The initial loading dose may be greater than the maintenance dose. However, other dosage regimens may be useful. The progress of this therapy is easily monitored by conventional techniques and assays.

[00413] In some embodiments, the method described herein involves administering the subject an anti-GFRAL antibody or fragment thereof to a patient who has involuntary body weight loss or is at risk of developing involuntary body weight loss. The subject methods include administering an anti-GFRAL antibody or fragment thereof disclosed herein to a subject who has elevated serum levels of GDF15. In certain embodiment, the antibody or fragment thereof is an anti-GFRAL antibody that competes with GDF15 for binding to extracellular domain of GFRAL. In certain embodiments, the antibody or fragment thereof binds to an extracellular domain of a GFRAL protein but does not activate RET. For example, the antibody or fragment thereof is an anti-GFRAL antibody that competes with GDF15 for binding to extracellular domain of GFRAL but does not activate RET upon binding to GFRAL. Such an antibody is described herein.

[00414] In the methods of the present disclosure, anti-GFRAL antibodies or fragments thereof described herein or pharmaceutical compositions comprising said antibodies or fragments thereof can be administered to a subject (*e.g.,* a human patient) to, for example, achieve a target body weight and/or maintain body weight;

achieve a target body mass index (BMI) and/or maintain a BMI; increase appetite; and the like. A normal human adult has a BMI in the range 18.5-24.9 Kg/m^2. The subject treatment methods can increase body weight, BMI, muscle weight, and/or food intake in a patient by at least about 5%, *e.g.*, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50% or more.

[00415] The methods relating to treatment or prevention of a GDF15-mediated disease, disorder or condition (*e.g.*, involuntary weight loss) described herein include, for example, use of an anti-GFRAL antibody or fragment thereof described herein for therapy/prevention alone or in combination with other types of therapy. The method involves administering to a subject the anti-GFRAL antibody or fragment thereof and another agent.

[00416] In some embodiments, the agent is administered to a patient experiencing loss of muscle mass, for example, loss of muscle mass associated with an underlying disease. Underlying diseases associated with cachexia include, but are not limited to, cancer, chronic renal disease, chronic obstructive pulmonary disease, AIDS, tuberculosis, chronic inflammatory diseases, sepsis and other forms of systemic inflammation, muscle wasting, such as muscular dystrophy, and the eating disorder known as anorexia nervosa. In some embodiments, the agent inhibits loss of lean mass (*e.g.*, muscle mass) and or fat mass by at least 40%, 50%, 60%, 70%, 80%, 90%, 95%, 98%, 99%, or 100%.

[00417] In some embodiments, a loss of lean mass (*e.g.*, muscle mass) is accompanied by a loss of fat mass. In some embodiments, the agent can inhibit loss of fat mass by at least 40%, 50%, 60%, 70%, 80%, 90%, 95%, 98%, 99%, or 100%.

[00418] In some embodiments, the agent is administered to a patient diagnosed with body weight loss (*e.g.*, involuntary weight loss). In some embodiments, the agent can revert body weight loss (*e.g.*, involuntary weight loss) by at least 2%, 5%, 10%, 15%, 20%, 25%, 30% or 35%.

[00419] In some embodiments, the agent is administered to a patient diagnosed with loss of organ mass, for example, loss of organ mass associated with an underlying disease. Underlying diseases associated with cachexia include, but are not limited to, cancer, chronic renal disease, chronic obstructive pulmonary disease, AIDS, tuberculosis, chronic inflammatory diseases, sepsis and other forms of

systemic inflammation, muscle wasting, such as muscular dystrophy, and the eating disorder known as anorexia nervosa. In some embodiments, the agent can inhibit loss of organ mass by at least 40%, 50%, 60%, 70%, 80%, 90%, 95%, 98%, 99%, or 100%. In some embodiments, loss of organ mass is observed in heart, liver, kidney, and/or spleen. In some embodiments, the loss of organ mass in accompanied by a loss of muscle mass, a loss of fat mass and/or involuntary weight loss.

[00420] Sarcopenia, muscle wasting disorders and significant muscle weight loss can occur in the absence of cachexia, decreased appetite or body weight loss. In some embodiments, the agent can be used to treat a subject diagnosed with sarcopenia, a muscle wasting disorder and/or significant muscle weight loss, whether or not the subject has, or has been diagnosed with, cachexia or decreased appetite. Such a method comprises administering a therapeutically effective amount of one or more agents to a subject in need thereof.

[00421] Any of a wide variety of therapies directed to treating or preventing cachexia can be combined in a composition or therapeutic method with the subject proteins.

[00422] Where the GFRAL-ECD protein is administered in combination with one or more other therapies, the combination can be administered anywhere from simultaneously to up to 5 hours or more, *e.g.*, 10 hours, 15 hours, 20 hours or more, prior to or after administration of a subject protein. In certain embodiments, a subject protein and other therapeutic intervention are administered or applied sequentially, *e.g.*, where a subject protein is administered before or after another therapeutic treatment. In yet other embodiments, a subject protein and other therapy are administered simultaneously, *e.g.*, where a subject protein and a second therapy are administered at the same time, *e.g.*, when the second therapy is a drug it can be administered along with a subject protein as two separate formulations or combined into a single composition that is administered to the subject. Regardless of whether administered sequentially or simultaneously, as illustrated above, the treatments are considered to be administered together or in combination for purposes of the present disclosure.

[00423] Cytokines that are implicated in cachexia include Activin A and IL-6. Increased activin levels have been associated with cancer-associated cachexia and

gonadal tumors. *See*, *e.g.*, Marino et al. (2013) CYTOKINE & GROWTH FACTOR REV. 24:477-484. Activin A is a member of the TGF-beta family, and is a ligand of the activin type 2 receptor, ActRIIB. *See*, *e.g.*, Zhou *et al.* (2010) CELL 142:531-543. Circulating levels of IL-6 have been shown to correlate with weight loss in cancer patients, as well as with reduced survival. *See*, *e.g.*, Fearon et al. (2012) CELL METABOLISM 16: 153-166.

[00424] Accordingly, in some embodiments, one or more inhibitors of Activin-A or the Activin-A receptor, ActRIIB, IL-6 or the IL-6 receptor (IL-6R), can be administered in combination with (for example, administered at the same time as, administered before, or administered after) an anti-GFRAL antibody or fragment thereof described herein. Exemplary inhibitors of Activin A or ActRIIB, include, for example, an anti-Activin-A antibody or an antigen binding fragment thereof, an anti -ActRIIB antibody or an antigen binding fragment thereof, a small molecule inhibitor of Activin-A, a small molecule inhibitor of ActRIIB, and a 'decoy' receptor of ActRIIB, such as a soluble ActRIIB receptor and a fusion of the soluble ActRIIB receptor with an Fc molecule (ActRIIB-Fc). *See*, *e.g.*, Zhou *et al.* (2010), supra. Suitable inhibitors of IL-6 or IL-6R, include an anti-IL-6 antibody or an antigen binding fragment thereof, an anti-IL-6R antibody or an antigen binding fragment thereof, a small molecule inhibitor of IL-6, a small molecule inhibitor of IL-6R, and a 'decoy' receptor of IL-6R, such as a soluble IL-6 receptor and a fusion of the soluble IL-6 receptor with an Fc molecule (IL6R-Fc). *See*, *e.g.*, Enomoto *et al.* (2004) BIOCHEM. AND BIOPHYS. RES. COMM. 323: 1096-1 102; Argiles *et al.* (2011) EUR. J. PHARMACOL. 668:S81-S86; Tuca *et al.* (2013) ONCOLOGY/HEMATOLOGY 88:625-636. Suitable inhibitors of IL-6 or IL-6R can include, *e.g.*, Tocilizumab (Actemra®, Hoffmann-LaRoche), a humanized anti-IL-6R monoclonal antibody approved for treatment of rheumatoid arthritis, and Sarilumab/REGN88 (Regeneron), a humanized anti-IL6R antibody in clinical development for treatment of rheumatoid arthritis; and Selumetinib/AZD6244 (AstraZeneca), an allosteric inhibitor of MEK, which has been shown to inhibit IL-6 production. Prado *et al.* (2012) BRITISH J. CANCER 106: 1583-1586.

[00425] TNFα and IL-1 are cytokines known to be involved in mediation of the proinflammatory response, which are also implicated in muscle depletion, anorexia and cachexia. Increased circulating levels of TNFα appear to inhibit myogenesis. TNFα, also known as "cachectin," stimulates interleukin-1 secretion and is implicated

in the induction of cachexia. IL-1 is a potent trigger of the acute-phase inflammatory response, and it has been shown that infusion of IL-1 can lead to marked weight loss and appetite loss. IL-1 has been shown to contribute to the initiation of cancer cachexia in mice bearing a murine colon-26 adenocarcinoma (Strassmann *et al.* (1993) J. IMMUNOL. 150:2341). *See also*, Mathys and Billiau (1997) NUTRITION 13 :763-770; Fong *et al.* (1989) AM. J. PHYSIOL. - REGULATORY, INTEGRATIVE AND COMPARATIVE PHYSIOL., 256:R659-R665. Thus, TNFα inhibitors and IL-1 inhibitors that are used in the treatment of rheumatoid arthritis may also be useful in the treatment of cachexia.

[00426] Accordingly, in some embodiments, one or more inhibitors of TNFα or IL-1 can be administered in combination with (*e.g.*, administered at the same time as, administered before, or administered after) an anti-GFRAL antibody or fragment thereof described herein. Suitable inhibitors of TNFα or IL-1 include an anti-TNFα antibody or an antigen binding fragment thereof, an anti-IL- 1 antibody or an antigen binding fragment thereof, a small molecule inhibitor of TNFα or IL-1, and a 'decoy' receptor of TNFα or IL-1, such as a soluble TNFα or IL-1 receptor and a fusion of the soluble form of TNFα or IL-1 with an Fc molecule. Suitable inhibitors of TNFα include for example, etanercept (Enbrel®, Pfizer/Amgen), infliximab (Remicade®, Janssen Biotech), adalimumab (Humira®, Abbvie), golimumab (Simponi®, Johnson and Johnson/Merck), and certolizumab pegol (Cimzia®, UCB). Suitable IL-1 inhibitors include, *e.g.*, Xilonix® antibody that targets IL-1 a (XBiotech), anikinra (Kinaret®, Amgen), canakinumab (Ilaris®, Novartis), and rilonacept (Arcalyst®, Regeneron). In certain embodiments, the TNFα inhibitor or IL-1 inhibitor, which is typically administered systemically for the treatment of rheumatoid arthritis may be administered locally and directly to the tumor site.

[00427] Myostatin, also known as GDF-8, is a member of the TGF-β family of peptides that is a negative regulator of muscle mass, as shown by increased muscle mass in myostatin deficient mammals. Myostatin is a ligand of the activin type 2 receptor, ActRIIB.

[00428] Accordingly, in some embodiments, one or more inhibitors of myostatin or its receptor may be administered in combination with (for example, administered at the same time as, administered before, or administered after) an anti-GFRAL antibody or fragment thereof described herein. Suitable inhibitors of myostatin or

ActRIIB, include an anti-myostatin antibody or an antigen binding fragment thereof, an anti-ActRIIB antibody or an antigen binding fragment thereof, a small molecule inhibitor of myostatin, a small molecule inhibitor of ActRIIB, and a 'decoy' receptor of GDF-8, such as a soluble ActRIIB and a fusion of the soluble form of ActRIIB with an Fc molecule. See, e.g., Lokireddy et al. (2012) BIOCHEM. J. 446(I):23-26. Myostatin inhibitors that may be suitable for the present methods include REGN1033 (Regeneron); see Bauerlein et al. (2013) J. CACHEXIA SARCOPENIA MUSCLE: Abstracts of the 7th Cachexia Conference, Kobe/Osaka, Japan, December 9-11, 2013, Abstract 4-06; LY2495655 (Lilly), a humanized anti-myostatin antibody in clinical development by Eli Lilly; see also "A PHASE 2 STUDY OF LY2495655 IN PARTICIPANTS WITH PANCREATIC CANCER," available on the world wide web at clinicaltrials.gov/ct2/NCT01505530; NML identifier: NCT01505530; ACE-031 (Acceleron Pharma); and stamulumab (Pfizer).

[00429] Agents such as Ghrelin or ghrelin mimetics, or other growth hormone secretagogues (GHS) which are able to activate the GHS receptor (GHS-Rla), also known as the ghrelin receptor, can be useful for increasing food intake and body weight in humans. See Guillory et al. (2013) in VITAMINS AND HORMONES vol. 92, chap.3; and Steinman and DeBoer (2013) VITAMINS AND HORMONES vol. 92, chap. 8. Accordingly, in some embodiments, one or more Ghrelin or ghrelin mimetics, or other growth hormone secretagogues (GHS), can be administered in combination with (for example, administered at the same time as, administered before, or administered after) an anti-GFRAL antibody or fragment thereof described herein. Suitable ghrelin mimetics include anamorelin (Helsinn, Lugano, CH); see Temel et al. (2013) J. CACHEXIA SARCOPENIA MUSCLE: Abstracts of the 7th Cachexia Conference, Kobe/Osaka, Japan, December 9-11, 2013, Abstract 5-01. Other suitable GHS molecules can be identified, for example, using the growth hormone secretagogue receptor Ghrelin competition assay described in PCT Publication Nos. WO201 1/1 17254 and WO2012/1 13103.

[00430] Agonists of the androgen receptor, including small molecules and other selective androgen receptor modulators (SARMs) can be useful in treating cachexia and/or sarcopenia. See, e.g., Mohler et al. (2009) J. MED. CHEM. 52:3597-3617; Nagata et al. (2011) BIOORGANIC AND MED. CHEM. LETTERS 21 : 1744-1747; and Chen et al. (2005) MOL. INTERV. 5: 173-188. Ideally, SARMs should act as full

agonists, like testosterone, in anabolic target tissues, such as muscle and bone, but should demonstrate only partial or pure androgen receptor antagonistic activities on prostate tissue. See, e.g., Bovee et al. (2010) J. STEROID BIOCHEM. & MOL. BIOL. 118:85-92. Suitable SARMs can be identified, e.g., by use of the methods and assays described in Zhang et al. (2006) BIOORG. MED. CHEM. LETT. 16:5763-5766; and Zhang et al. (2007) BIOORG. MED. CHEM. LETT. 17:439-443.

[00431] Accordingly, in some embodiments, one or more androgen receptor agonists can be administered in combination with (for example, administered at the same time as, administered before, or administered after) an anti-GFRAL antibody or fragment thereof described herein. Suitable SARMs include, for example, GTx-024 (enobosarm, Ostarine®, GTx, Inc.), a SARM in phase II clinical development by GTx, Inc. See also, Dalton et al. (2011) J. CACHEXIA SARCOPENIA MUSCLE 2: 153-161. Other suitable SARMs include 2-(2,2,2)-trifluoroethyl-benzimidazoles (Ng et al. (2007) BIOORG. MED. CHEM. LETT. 17: 1784-1787) and JNJ-26146900 (Allan et al. (2007) J. STEROID BIOCHEM. & MOL. BIOL. 103:76-83).

[00432] β-adrenergic receptor blockers, or beta-blockers, have been studied for their effect on body weight in cachexia subjects, and have been associated with partial reversal of cachexia in patients with congestive heart failure. See, e.g., Hryniewicz et al. (2003) J. CARDIAC FAILURE 9:464-468. Beta-blocker MT-102 (PsiOxus Therapeutics, Ltd.) has been evaluated in a phase 2 clinical trial for subjects with cancer cachexia. See Coats et al. (2011) J. CACHEXIA SARCOPENIA MUSCLE 2:201-207. Accordingly, in some embodiments, one or more β-adrenergic receptor blockers, or beta-blockers, can be administered in combination with (for example, administered at the same time as, administered before, or administered after) an anti-GFRAL antibody or fragment thereof described herein.

[00433] Melanocortin receptor-knockout mice with a genetic defect in melanocortin signaling exhibit a phenotype opposite that of cachexia: increased appetite, increased lean body mass, and decreased metabolism. Thus, melanocortin antagonism has emerged as a potential treatment for cachexia associated with chronic disease (DeBoer and Marks (2006) TRENDS IN ENDOCRINOLOGY AND METABOLISM 17: 199-204).

[00434] Accordingly, in some embodiments, one or more inhibitors of a melanocortin peptide or a melanocortin receptor can be administered in combination (e.g., administered at the same time as, administered before, or administered after) with an anti-GFRAL antibody or fragment thereof described herein. Suitable inhibitors of melanocortins or melanocortin receptors include an anti-melanocortin peptide antibody or an antigen binding fragment thereof, an anti-melanocortin receptor antibody or an antigen binding fragment thereof, a small molecule inhibitor of a melanocortin peptide, a small molecule inhibitor of a melanocortin receptor, and a 'decoy' receptor of a melanocortin receptor, such as soluble melanocortin receptor and a fusion of a soluble melanocortin receptor with an Fc molecule. Suitable melacortin receptor inhibitors include, for example, the melanocortin receptor antagonist agouri-related peptide (AgRP(83-132)), which has been demonstrated to prevent cachexia-related symptoms in a mouse model of cancer-related cachexia (Joppa et al. (2007) PEPTIDES 28:636-642).

[00435] Anti-cancer agents, especially those that can cause cachexia and elevate GDF15 levels, such as cisplatin, can be used in methods of the present disclosure in combination with (for example, administered at the same time as, administered before, or administered after) an anti-GFRAL antibody or fragment thereof described herein. Many cancer patients are weakened by harsh courses of radio- and/or chemotherapy, which can limit the ability of the patient to tolerate such therapies, and hence restrict the dosage regimen. Certain cancer agents themselves, such as fluorouracil, adriamycin, methotrexate and cisplatin, can contribute to cachexia, for example by inducing severe gastrointestinal complications. See, e.g., Inui (2002) CANCER J. FOR CLINICIANS 52:72-91. By the methods of the present disclosure, in which an anti-cancer agent is administered in combination with an anti-GFRAL antibody of the disclosure, it is possible to decrease the incidence and/or severity of cachexia, and ultimately increase the maximum tolerated dose of such an anti-cancer agent. Accordingly, efficacy of treatment with anti-cancer agents that can cause cachexia can be improved by reducing the incidence of cachexia as a dose-limiting adverse effect, and by allowing administration of higher doses of a given anticancer agent.

[00436] Thus, provided herein are pharmaceutical compositions comprising an anti-GFRAL antibody or fragment thereof described herein in combination with an agent

selected from the group consisting of an inhibitor of Activin-A, an inhibitor of ActRIIB, an inhibitor of IL-6 or an inhibitor of IL-6R, a ghrelin, a ghrelin mimetic or a GHS-Rla agonist, a SARM, a TNFα inhibitor, an IL-lα inhibitor, a myostatin inhibitor, a beta-blocker, a melanocortin peptide inhibitor, a melanocortin receptor inhibitor, and an anti-cancer agent. The present disclosure also includes methods of treating, preventing or minimizing cachexia and/or sarcopenia in a mammal comprising administering to a mammal in need thereof a pharmaceutical composition or compositions comprising an effective amount of an anti-GFRAL antibody of the disclosure in combination with an effective amount of an inhibitor of Activin-A, an inhibitor of ActRIIB, an inhibitor of IL-6 or an inhibitor of IL-6R, a ghrelin, a ghrelin mimetic or a GHS-Rla agonist, a SARM, a TNFα inhibitor, an IL-lα inhibitor, a myostatin inhibitor, a beta-blocker, a melanocortin peptide inhibitor, or a melanocortin receptor inhibitor.

[00437] In another aspect, provided herein is a method of inhibiting loss of muscle mass associated with an underlying disease comprising administering to a mammal in need thereof a pharmaceutical composition or compositions comprising an effective amount of an anti-GFRAL antibody or fragment thereof described herein in combination with an effective amount of an inhibitor of Activin-A, an inhibitor of ActRIIB, an inhibitor of IL-6 or an inhibitor of IL-6R, a ghrelin, a ghrelin mimetic or a GHS-Rla agonist, a SARM, a TNFα inhibitor, an IL-lα inhibitor, a myostatin inhibitor, a beta-blocker, a melanocortin peptide inhibitor, or a melanocortin receptor inhibitor to prevent or reduce loss of muscle mass. The underlying disease can be selected from the group consisting of cancer, chronic heart failure, chronic kidney disease, chronic obstructive pulminary disease, AIDS, multiple sclerosis, rheumatoid arthritis, sepsis, and tuberculosis. Additionally, in some embodiments, the loss of muscle mass is accompanied by a loss of fat mass.

[00438] In another aspect, provided herein is a method of inhibiting or reducing involuntary weight loss in a mammal comprising administering to a mammal in need thereof a pharmaceutical composition or pharmaceutical compositions comprising an effective amount of an anti-GFRAL antibody of the disclosure in combination with an effective amount of an inhibitor of Activin-A, an inhibitor of ActRIIB, an inhibitor of IL-6 or an inhibitor of IL-6R, a ghrelin, a ghrelin mimetic or a GHS-Rla agonist, a SARM,

a TNFα inhibitor, a IL-lα inhibitor, a myostatin inhibitor, a beta-blocker, a melanocortin peptide inhibitor, or a melanocortin receptor inhibitor.

[00439] Certain anti-cancer agents, such as cisplatin, have one or more undesirable adverse effects that involve causing or increasing one or more syndromes such as cachexia, sarcopenia, muscle wasting, bone wasting or involuntary body weight loss. Accordingly, in another aspect, provided herein is a method of treating cancer, while preventing, minimizing or reducing the occurrence, frequency or severity of cachexia, sarcopenia, or muscle wasting, bone wasting or involuntary loss of body weight in a mammal, comprising administering to a mammal in need thereof a pharmaceutical composition comprising an effective amount of an anti-GFRAL antibody or fragment thereof described herein in combination with one or more anti-cancer agents. In some embodiments, the method of treating cancer, while preventing, minimizing or reducing the occurrence, frequency or severity of cachexia, sarcopenia or muscle wasting, bone wasting or involuntary loss of body weight in a mammal, comprises administering to a mammal in need thereof a pharmaceutical composition comprising an effective amount of an anti-GFRAL antibody or fragment thereof described herein in combination with one or more anti-cancer agents known to cause or increase the occurrence, frequency or severity of cachexia, sarcopenia, or muscle wasting, bone wasting or involuntary loss of body weight in a mammal.

DIAGOSTIC METHODS AND METHODS OF DETECTION

[00440] In one aspect, anti-GFRAL antibodies and fragments thereof of the present disclosure are useful for detecting the presence of GFRAL in a biological sample. Such anti-GFRAL antibodies can include those that bind to human GFRAL. The term “detecting” as used herein encompasses quantitative or qualitative detection. In certain embodiments, a biological sample comprises a cell or tissue.

[00441] In one aspect, the present disclosure provides a method of detecting the presence of GFRAL in a biological sample. In certain embodiments, the method comprises contacting the biological sample with an anti-GFRAL antibody under conditions permissive for binding of the anti-GFRAL antibody to GFRAL, and detecting whether a complex is formed between the anti-GFRAL antibody and GFRAL.

[00442] In one aspect, the present disclosure provides a method of diagnosing a disorder associated with expression of GFRAL. In certain embodiments, the method comprises contacting a test cell with an anti-GFRAL antibody; determining the level of expression (either quantitatively or qualitatively) of GFRAL by the test cell by detecting binding of the anti-GFRAL antibody to GFRAL; and comparing the level of expression of GFRAL by the test cell with the level of expression of GFRAL by a control cell (*e.g.,* a normal cell of the same tissue origin as the test cell or a cell that expresses GFRAL at levels comparable to such a normal cell), wherein a higher level of expression of GFRAL by the test cell as compared to the control cell indicates the presence of a disorder associated with increased expression of GFRAL. In certain embodiments, the test cell is obtained from an individual suspected of having a disease, disorder or condition associated with expression of GDF15 and/or a disease, disorder or condition in which it is desirable to inhibit the *in vivo* effects of GDF15. In certain embodiments, the disease, disorder or condition is, for example, involuntary weight loss. Such exemplary diseases, disorders or conditions may be diagnosed using an anti-GFRAL antibody of the present disclosure.

[00443] In certain embodiments, a method of diagnosis or detection, such as those described above, comprises detecting binding of an anti-GFRAL antibody to GFRAL expressed on the surface of a cell or in a membrane preparation obtained from a cell expressing GFRAL on its surface. In certain embodiments, the method comprises contacting a cell with an anti-GFRAL antibody under conditions permissive for binding of the anti-GFRAL antibody to GFRAL, and detecting whether a complex is formed between the anti-GFRAL antibody and GFRAL on the cell surface. An exemplary assay for detecting binding of an anti-GFRAL antibody to GFRAL expressed GFRAL on the surface of a cell is a “FACS” assay.

[00444] Certain other methods can be used to detect binding of anti-GFRAL antibodies to GFRAL. Such methods include, but are not limited to, antigen-binding assays that are well known in the art, such as western blots, radioimmunoassays, ELISA (enzyme linked immunosorbent assay), “sandwich” immunoassays, immunoprecipitation assays, fluorescent immunoassays, protein A immunoassays, and immunohistochemistry (IHC).

[00445] In certain embodiments, anti-GFRAL antibodies are labeled. Labels include, but are not limited to, labels or moieties that are detected directly (such as fluorescent, chromophoric, electron-dense, chemiluminescent, and radioactive labels), as well as moieties, such as enzymes or ligands, that are detected indirectly, for example, through an enzymatic reaction or molecular interaction. Exemplary labels include, but are not limited to, the radioisotopes ^{32}P, ^{14}C, ^{125}I, ^{3}H, and ^{131}I, fluorophores such as rare earth chelates or fluorescein and its derivatives, rhodamine and its derivatives, dansyl, umbelliferone, luceriferases, for example, firefly luciferase and bacterial luciferase (see, *e.g.,* U.S. Pat. No. 4,737,456), luciferin, 2,3-dihydrophthalazinediones, horseradish peroxidase (HRP), alkaline phosphatase, β-galactosidase, glucoamylase, lysozyme, saccharide oxidases, *e.g.,* glucose oxidase, galactose oxidase, and glucose-6-phosphate dehydrogenase, heterocyclic oxidases such as uricase and xanthine oxidase, coupled with an enzyme that employs hydrogen peroxide to oxidize a dye precursor such as HRP, lactoperoxidase, or microperoxidase, biotin/avidin, spin labels, bacteriophage labels, stable free radicals, and the like.

[00446] In certain embodiments, anti-GFRAL antibodies are immobilized on an insoluble matrix. Immobilization entails separating the anti-GFRAL antibody from any GFRAL that remains free in solution. This conventionally is accomplished by either insolubilizing the anti-GFRAL antibody before the assay procedure, as by adsorption to a water-insoluble matrix or surface (see, *e.g.,* Bennich *et al.*, U.S. 3,720,760), or by covalent coupling (for example, using glutaraldehyde cross-linking), or by insolubilizing the anti-GFRAL antibody after formation of a complex between the anti- GFRAL antibody and GFRAL, for example, by immunoprecipitation.

[00447] Any of the above embodiments of diagnosis or detection may be carried out using an immunoconjugate of the present disclosure in place of or in addition to an anti-GFRAL antibody.

Assays

[00448] Anti-GFRAL antibodies of the present disclosure may be characterized for their physical/chemical properties and/or biological activities by various assays known in the art.

1. Activity Assays

[00449] In one aspect, assays are provided for identifying anti-GFRAL antibodies thereof having biological activity. Biological activity can include, for example, assays which measure effects on glucose and/or lipid metabolism. For example, a blood glucose assay can be used. Blood glucose (*e.g.,* in mouse tail snip or in a human blood sample) can be measured using ACCU-CHEK Active test strips read by ACCU-CHEK Active meter (Roche Diagnostics, Indianapolis, IN) following manufacturer's instruction. In addition, for example, a lipid profile assay can be used. Whole blood (*e.g.,* from mouse tail snips or from a human blood sample) can be collected into plain capillary tubes (BD Clay Adams SurePrep, Becton Dickenson and Co. Sparks, MD). Serum and blood cells can be separated by spinning the tubes in an Autocrit Ultra 3 (Becton Dickinson and Co. Sparks, MD). Serum samples can be assayed for lipid profile (triglyceride, total cholesterol, HDL, and non-HDL) using Integra 400 Clinical Analyzer (Roche Diagnostics, Indianapolis, IN) following the manufacturer's instructions.

2. Binding Assays and Other Assays

[00450] In one aspect, an anti-GFRAL antibody is tested for its antigen binding activity. For example, in certain embodiments, an anti-GFRAL antibody is tested for its ability to bind to exogenous or endogenous GFRAL expressed on the surface of a cell. A FACS assay may be used for such testing.

[00451] A panel of monoclonal antibodies raised against GFRAL may be grouped based upon the epitiopes they recognize, a process known as epitope binning. Epitope binning is typically carried out using competition assays, which evaluate an antibody's ability to bind to an antigen in the presence of another antibody. In an exemplary competition assay, immobilized GFRAL is incubated in a solution comprising a first labeled antibody that binds to GFRAL and a second unlabeled antibody that is being tested for its ability to compete with the first antibody for binding to GFRAL. The second antibody may be present in a hybridoma supernatant. As a control, immobilized GFRAL is incubated in a solution comprising the first labeled antibody but not the second unlabeled antibody. After incubation under conditions permissive for binding of the first antibody to GFRAL, excess unbound antibody is removed, and the amount of label associated with immobilized GFRAL is measured. If the amount of label associated with immobilized GFRAL is

substantially reduced in the test sample relative to the control sample, then that indicates that the second antibody is competing with the first antibody for binding to GFRAL. In certain embodiments, immobilized GFRAL is present on the surface of a cell or in a membrane preparation obtained from a cell expressing GFRAL on its surface.

[00452] High-throughput methods of epitope binning are also known in the art (see, *e.g.,* Jia *et al.*, *J. Immunol. Methods* 2004, 288(1-2):91-98, describing a method of multiplexed competitive antibody binning for the characterization of monoclonal antibodies; and Miller *et al.*, *J. Immunol. Methods* 2011, 365(1-2):118-25, describing epitope binning of murine monoclonal antibodies by a multiplexed pairing assay).

3. Epitope Mapping

[00453] Epitope mapping is the process of identifying the binding sites, or epitopes, of an antibody on its target protein antigen (*e.g.,* epitopes of an anti-GFRAL antibody on GFRAL). Antibody epitopes may be linear epitopes or conformational epitopes. Linear epitopes are formed by a continuous sequence of amino acids in a protein. Conformational epitopes are formed of amino acids that are discontinuous in the protein sequence, but which are brought together upon folding of the protein into its three-dimensional structure.

[00454] A variety of methods are known in the art for mapping antibody epitopes on target protein antigens. These include mutagenesis methods, peptide scanning methods, display methods, methods involving and mass spectroscopy, and structural determination.

[00455] The site directed mutagenesis method involves targeted site-directed mutagenesis where critical amino acids are identified by systematically introducing substitutions along the protein sequence and then determining the effects of each substitution on antibody binding. This may be done by "alanine scanning mutagenesis," as described, for example, by Cunningham and Wells (1989) *Science* 244: 1081-1085, or some other form of point mutagenesis of amino acid residues in human GFRAL. Mutagenesis studies, however, may also reveal amino acid residues that are crucial to the overall three-dimensional structure of GFRAL but that are not directly involved in antibody-antigen contacts, and thus other methods may be necessary to confirm a functional epitope determined using this method.

[00456] Shotgun mutagenesis mapping utilizes a comprehensive plasmid-mutation library for the target gene, with each clone in the library bearing a unique amino acid mutation and the entire library covering every amino acid in the target protein. The clones that constitute the mutation library are individually arranged in microplates, expressed within living mammalian cells, and tested for immunoreactivity with antibodies of interest. Amino acids critical for antibody epitopes are identified by a loss of reactivity and are then mapped onto a protein structure to visualize epitopes. By automating the analysis, new epitope maps can be derived within days to weeks. Because it uses the native structure of proteins within mammalian cells, the technique allows both linear and conformational epitope structures to be mapped on complex proteins. (See, *e.g.,* Paes *et al.*, *J. Am. Chem. Soc.* 131(20): 6952-6954 (2009); Banik and Doranz, *Genetic Engineering and Biotechnology News* 3(2): 25-28 (2010)).

[00457] The epitope bound by an anti-GFRAL antibody may also be determined using peptide scanning methods. In peptide scanning, libraries of short peptide sequences from overlapping segments of the target protein, GFRAL, are tested for their ability to bind antibodies of interest. The peptides are synthesized and screened for binding, *e.g.,* using ELISA or BIACORE, or on a chip, by any of the multiple methods for solid-phase screening (see, *e.g.,* Reineke *et al.*, *Curr. Opin. Biotechnol.* 12: 59-64, 2001) as in the "pepscan" methodology (see, *e.g.,* WO 84/03564; WO 93/09872). Such peptide screening methods may not be capable of detecting some discontinuous functional epitopes, i.e. functional epitopes that involve amino acid residues that are not contiguous along the primary sequence of the GFRAL polypeptide chain.

[00458] A recently developed technology termed CLIPS (chemical linkage of peptides onto scaffolds) may be used to map conformational epitopes. The loose ends of the peptides are affixed onto synthetic scaffolds, so that the scaffolded peptide may be able to adopt the same spatial structure as the corresponding sequence in the intact protein. CLIPS technology is used to fix linear peptides into cyclic structures ('single-loop' format), and to bring together different parts of a protein binding site ('double-loop', 'triple-loop', etc. format), so as to create conformational epitopes that may be assayed for antibody binding (see, *e.g.,* US Pat. No. 7,972,993).

[00459] The epitopes bound by anti-GFRAL antibodies of the present disclosure may also be mapped using display techniques, including, for example, phage display, microbial display, and ribosome/mRNA display as described above. In these methods, libraries of peptide fragments are displayed on the surface of the phage or cell. Epitopes are then mapped by screening antibodies against these fragments using selective binding assays. A number of computational tools have been developed which allow the prediction of conformational epitopes based upon linear affinity-selected peptides obtained using phage display (see, *e.g.,*Mayrose *et al.*, *Bioinformatics* 23: 3244-3246 , 2007). Methods are also available for the detection of conformational epitopes by phage display. Microbial display systems may also be used to express properly folded antigenic fragments on the cell surface for identification of conformational epitopes (see, *e.g.,* Cochran *et al.*, *J. Immunol. Meth.* 287: 147-158, 2004; Rockberg *et al.*, *Nature Methods* 5: 1039-1045, 2008).

[00460] Methods involving proteolysis and mass spectroscopy may also be used to determine antibody epitopes (see, *e.g.,* Baerga-Ortiz *et al.*, *Protein Sci.* 2002 June; 11(6): 1300–1308). In limited proteolysis, the antigen is cleaved by different proteases, in the presence and in the absence of the antibody, and the fragments are identified by mass spectrometry. The epitope is the region of the antigen that becomes protected from proteolysis upon binding of the antibody (see, *e.g.,* Suckau *et al.*, *Proc. Natl. Acad. Sci. USA* 87:9848-9852, 1990). Additional proteolysis based methods include, for example, selective chemical modification (see, *e.g.,* Fiedler *et al.*, *Bioconjugate Chemistry* 1998, 9(2): 236-234, 1998), epitope excision (see, *e.g.,* Van de Water *et al.*, *Clin. Immunol. Immunopathol.* 1997, 85(3): 229-235, 1997), and the recently developed method of hydrogen-deuterium (H/D) exchange (see, *e.g.,* Flanagan, N., *Genetic Engineering and Biotechnology News* 3(2): 25-28, 2010).

[00461] The epitope bound by anti-GFRAL antibodies of the present disclosure may also be determined by structural methods, such as X-ray crystal structure determination (*see*, *e.g.,* WO 2005/044853), molecular modeling and nuclear magnetic resonance (NMR) spectroscopy, including NMR determination of the H-D exchange rates of labile amide hydrogens when free and when bound in a complex with an antibody of interest (*see*, *e.g.,* Zinn-Justin *et al.* (1992) *Biochemistry* 31:11335-11347; Zinn-Justin *et al.* (1993) *Biochemistry* 32:6884-6891).

[00462] Additional antibodies binding to the same epitope as an anti-GFRAL antibody of the present disclosure may be obtained, for example, by screening of antibodies raised against GFRAL o for binding to the epitope, by immunization of an animal with a peptide comprising a fragment of human GFRAL comprising the epitope sequence, or by selection of antibodies using phage display for binding to the epitope sequence. Antibodies that bind to the same functional epitope might be expected to exhibit similar biological activities, such as blocking a biological activity of GFRAL, and such activities can be confirmed by functional assays of the antibodies.

4. Additional Activity Assays

[00463] In one embodiment, an anti-GFRAL antibody of the present disclosure is an antagonist antibody that inhibits a biological activity of GFRAL. The anti-GFRAL antibodies of the present disclosure may be assayed to determine if they inhibit a biological activity of GFRAL.

[00464] In one aspect, purified anti-GFRAL antibodies can be further characterized by a series of assays including, but not limited to, N-terminal sequencing, amino acid analysis, non-denaturing size exclusion high pressure liquid chromatography (HPLC), mass spectrometry, ion exchange chromatography and papain digestion.

[00465] In one embodiment, the present disclosure contemplates an altered antibody that possesses some but not all effector functions, which make it a desirable candidate for many applications in which the half life of the antibody *in vivo* is important yet certain effector functions (such as complement and ADCC) are unnecessary or deleterious. In certain embodiments, the Fc activities of the antibody are measured to ensure that only the desired properties are maintained. *In vitro* and/or *in vivo* cytotoxicity assays can be conducted to confirm the reduction/depletion of CDC and/or ADCC activities. For example, Fc receptor (FcR) binding assays can be conducted to ensure that the antibody lacks FcγR binding (hence likely lacking ADCC activity), but retains FcRn binding ability. An *in vitro* assay to assess ADCC activity of a molecule of interest is described, for example, in U.S. Patent No. 5,500,362 or 5,821,337. Useful effector cells for such assays include peripheral blood mononuclear cells (PBMC) and Natural Killer (NK) cells. Alternatively, or additionally, ADCC activity of the molecule of interest may be assessed *in vivo*, for example, in a animal model such as that disclosed in Clynes *et*

al. PNAS (USA) 95:652-656 (1998). C1q binding assays may also be carried out to confirm that the antibody is unable to bind C1q and hence lacks CDC activity. To assess complement activation, a CDC assay, for example, as described in Gazzano-Santoro *et al.*, *J. Immunol. Methods* 202:163 (1996), may be performed. FcRn binding and *in vivo* clearance/half life determinations can also be performed using methods known in the art.

[00466] Although the foregoing present disclosure has been described in some detail by way of illustration and example for purposes of clarity of understanding, the descriptions and examples should not be construed as limiting the scope of the present disclosure. The disclosures of all patent and scientific literatures cited herein are expressly incorporated in their entirety by reference.

EXAMPLES

[00467] The following are examples of methods and compositions of the present disclosure.

EXAMPLE 1: GENERATION OF ANTIBODIES

[00468] Antibodies to a GFRALprotein were generated, for example, by immunizations of mice with cells expressing a GFRAL protein, co-expressing a RET protein and a GFRAL protein, or cross-linking of a GDF15 protein onto cells co-expressing a RETprotein and a GFRAL protein. Mice were also immunized with a GFRAL ECD, GDF15:GFRAL ECD complex and/or GFRAL ECD Fc fusion: RET ECD Fc fusion.

[00469] For example, the cells used for immunizations were prepared as follows. 293EXPI (Invitrogen) cells were transiently transfected with nucleic acid sequences encoding a GFRAL protein (SEQ ID NO: 1797) or co-transfected with nucleic acid sequences encoding a GFRAL protein and a RET protein (SEQ ID NOS: 1797 and 1813). Cells were analyzed for expression of GFRAL and RET by the respective specific antibodies by FACS. Cells were washed 2 times in PBS, pelleted by centrifugation and membrane preps were generated. 129/B6 or NZBW animals were immunized with membrane preps with adjuvants. Animals were boosted to induce a suitable titer. Titers were determined by ELISA and/or FACS. Single cell suspensions of lymphocytes were obtained from spleen and draining lymph nodes of animals with suitable titers. Cells were fused with SP2/0 myeloma cells at a ratio of

1:12 by electrofusion. Fused cells were plated into plates in the presence of HAT selection. After 10-14 days of culture, supernatants were collected and subjected to screening by cell imaging by CellnSight using GFRAL or GFRAL and RET overexpressing-293EXPI cells or by ELISA using GFRAL-Fc protein or RET and GFRAL Fc-heterodimers to confirm binding. Positive clones were further selected and subjected to subcloning.

[00470] In multiple campaigns of immunizations and fusions, over one-hundred thousand hybridoma clones were screened and more than two thousand clones were selected for GDF15-binding, cell-based GDF15-induced signaling and cell-based GDF15-independent signaling. Hundreds of clones (*e.g.*, 250) were selected for additional study, including assays for binding affinity, domain mapping, and epitope specificity. Thousands of hybridoma supernatants were also tested in functional assays, including antagonistic and agonist activity assays. Hundreds of clones were purified for further testing.

EXAMPLE 2: SCREENING AND SELECTION OF ANTIBODIES

[00471] After 2 weeks of culture, hybridoma supernatants were screened for monoclonal antibodies binding to a GFRAL protein by cell imaging by CellnSight using GFRAL or GFRAL and RET overexpressing-293EXPI cells or by ELISA using GFRAL-Fc protein or RET and GFRAL Fc-heterodimers. Briefly, screening by cell imaging, 293EXPI cells were transiently transfected with nucleic acid sequences encoding GFRAL or co-transfected with nucleic acid sequences encoding GFRAL and RET. Transfected cells were plated onto 384-well plates with clear bottom. Media was replaced 24 hours post transfection. At 48 hrs, media was aspirated off the plates, hybridoma supernatants were added to the wells and incubated at room temperature for 30 mins. Then A647 anti-mouse Fc were added to the wells and incubated at room temperature for another 30 mins. Dapi positive cells were analyzed for a signal in the A647 channel and a positive A647 signal indicates GFRAL binders.

[00472] Briefly, screening by ELISA, GFRAL-Fc protein or RET and GFRAL Fc-heterodimers was captured by anti-human Fc reagents coated onto ELISA plates. Plates were blocked using PBS/1%BSA. 15µL of hybridoma supernatants were added to the wells and incubated at room temperature for 1 hr. After 3 washes,

15µL of HRP-anti-mouse Fc secondary were added to the wells and incubated at room temperature for 1 hr. After 3 washes, 15µL of TMB were used to develop the plates. A positive signal indicates GFRAL binders.

[00473] From these assays, thousands of antibodies were identified as binders to GFRAL. These antibodies were subjected to further testing, which included assaying for binding affinity, domain mapping, epitope specificity, and agonistic and antagonistic function. Hundreds of antibodies were purified for further testing.

[00474] In addition, the binding affinity of antibodies to human and mouse GFRAL were measured. For example, antibodies were rank ordered based on their binding affinity to human GFRAL and mouse GFRAL by low resolution K_D measurement by Biacore. Briefly, an anti-mouse Fc antibody (Sigma-Aldrich, St. Louis, MO) was immobilized on all four flow cells of a CM5 chip using amine coupling reagents (GE Healthcare LifeSciences, Piscataway, NJ). Purified antibodies were captured (~100 RUs) on flow cells 2, 3 and 4 using flow cell 1 as a reference. This was followed by injection of human or mouse GFRAL (25 nM in PBS-P buffer) at a flow rate of 70 µL/min and monitoring the binding kinetics at 25°C.

[00475] Binding affinity measurements were also made in additional Biacore based assays. For example, equilibrium dissociation constant (K_D) measurements were carried out with purified antibodies to evaluate their binding to human GFRAL or mouse GFRAL. As mentioned above, anti-mouse Fc antibody (Sigma-Aldrich, St. Louis, MO) was immobilized on all four flow cells of a CM5 chip using amine coupling reagents (GE Healthcare LifeSciences, Piscataway, NJ). Purified antibodies were captured (~100 RUs) on flow cells 2, 3 and 4 using flow cell 1 as a reference. This was followed by injection of human or mouse GFRAL in PBS-P buffer) at a flow rate of 70 µL/min and the binding kinetics were evaluated at 25°C.

[00476] Representative results for binding affinity (*e.g.*, K_D (nM)) to human and mouse GFRAL are shown in Table 26 below. In addition, representative results for off-rate of binding (*e.g.*, K_{off} (1/s)) are shown in Table 26 below for exemplary antibodies.

Table 26.

	Binding Affinity	
	Human GFRAL	**Mouse GFRAL**

Clone ID	K_D (nM)	k_{off} (1/s)	K_D (nM)	k_{off} (1/s)
1C1	<0.1	~1E5	3.68	2.5E-3
25M22	<0.1	~1E-5	4.2	1E-4
8D8	0.46	1.24E-4	8.17	2.81E-3
12A3	<0.1	~1E-5	5.7	2.16E-3
3P10	<0.1	~1E-5	<0.1	~1E-5
5F12	<0.1	~1E-5	2.2	9E-4
5A20	0.081	3.32E-5	<0.1	4-E4
17J16	<0.1	~1E-5	<0.1	1E-5
6G9	<0.1	~1E5	No	N/A
2B8	0.73	~1E5	3.76	1.3E-2
6N16	0.16	9.93E-5	ND	NA
8C10	<0.1	7.2E-5	weak	49.26
2B11	0.1	8.45E-5	3.7	1.44E-3
1B3	<0.1	9.4E-9	4.4	1.07E-3
19K19	0.21	1.35E-4	4.7	3.4E-3
22N5	0.21	1.32E-4	3.47	9.43E-4
2A9	0.25	1.53E-4	3.6	2.9E-3
24G2	1.4	6.96E-4	5.02	1.73E-3
2I23	0.23	6.77E-5	ND	NA
1A3	0.11	7.57E-5	ND	NA
P1B6	0.14	9.72E-5	ND	NA
P1H8	0.21	8.99E-5	ND	NA
P8G4	0.21	2.76E-4	ND	NA

NA = does not apply; ND = no binding detected

[00477] For exemplary antibodies 1C1 and 3P10, affinity is driven mainly by a very slow off-rate (*see*, *e.g.,* **FIG. 3**). Antibodies that bind to GFRAL as shown in Table 26 above do not recognize (*e.g.*, bind to) GNFR alpha 1, the most closely related homolog of GFRAL.

EXAMPLE 3: FUNCTIONAL ASSAYS

[00478] Antibodies to GFRAL generated, for example, such as described in Example 1, were tested for their functional activity in cell-based reporter assays.

[00479] For example, ELK1-luciferase reporter assays, which measure human GDF15 (hGDF15)-induced human GFRAL/RET signaling, were performed using transiently transfected HEK293T. The transfecting plasmids consisted of two reporter plasmids, Gal4-Elk1 and 5×UAS-Luc (Agilent Technologies PathDetect Elk1 trans-reporting system Cat# 219005), and plasmids encoding human GFRAL (hGFRAL), cynomolgus monkey GFRAL (cynoGFRAL), mouse GFRAL (mGFRAL), or rat GFRAL (rGFRAL), and human RET (hRET), cynomolgus monkey RET (cynoRET), mouse RET (mRET) or rat RET (rRET). In these assays, hGDF15-induced activation

of recombinantly expressed GFRAL/RET receptor complex in the cells triggers intracellular signaling transduction, which leads to ERK and then Elk1 phosphorylation. Once Gal4-Elk1 is phosphorylated, Gal4-Elk1 binds to the 5×UAS promoter region and turns on luciferase reporter gene transcription. The activity of luciferase is then measured in luciferase enzymatic assays.

[00480] Representative results for antibodies to GFRAL inhibiting human GFRAL/RET signaling are shown in Table 27 below.

Table 27

	IC_{50} (nM)	
Clone ID	**hGFRAL/ hRET**	**mGFRAL/ mRET**
5F12	0.834	6.276
3P10	4.088	1.029
17J16	0.6658	0.4075
6G9	2.65	ND
2B8	1.923	2.449
6N16	1.618	ND
8C10	1.786	WB
2B11	7.896	ND
25M22	2.887	1.113
12A3	4.993	0.9334
1B3	4.136	ND
19K19	3.877	0.8948
1C1	8.638	1.189
8D8	2.106	1.419
22N5	7.744	2.599
2A9	3.706	7.871
2B3	7.124	7.761
24G2	18.94	8.324
5A20	3.19	0.6
2I23	7.185	NP
1A3	ND	NP
P1B6	ND	NP
P1H8	ND	NP
P8G4	ND	NP

ND = blocking not detected in assay
NP = assay not performed
WB = weak blocking detected in assay

[00481] For some experiments, the above mentioned four plasmids (*e.g.*, 2 reporter plasmids, GFRAL, RET) were transfected into newly harvested cells in suspension using FuGene6 transfection reagent (Promega). The GFRAL and RET DNA ratio in transfection was optimized for the each pair of receptors from indicated species and

varied between 12:1 to 60:1. Transfected cells were seeded into 384-well plate (7500 cells/25 µL/well) in normal growth medium. After overnight incubation at 37°C, a mix of serially diluted antibodies and fixed concentration of hGDF15 were added. After 6 hrs at 37°C incubation with the antibodies, an equal volume of Bright-Glo reagent (Promega) was added and luminescence signal was read using Enspire reader (Perkin Elmer).

[00482] Simultaneous addition of antibodies, antagonizing the hGDF15 effect, blocked hGDF15 signaling in a dose-dependent manner preventing expression of luciferase reporter gene.

EXAMPLE 4: ADDITIONAL FUNCTIONAL ASSAYS

[00483] Anti-hGFRAL antibodies were tested for their hGDF15 antagonising activity in an additional cell-based assay, such as an U2OS assay stably expressing hGFRAL and hRET. One day before the assay, the cells were plated in 90µl of DiscoveRx Assay Complete Cell Plating 16 Reagent (DiscoveRx, Cat#93-0563R16B) at 20K/each of 96 well plate. Next day the cells were treated with a mix of serially diluted antibodies and a fixed concentration of hGDF15 for 10 minutes at 37°C. Cis-bio Cellul'erk assay kit (Cat# 64ERKPEH) was used to assay for ERK phosphorylation level following the manufacturer's protocol. Similar to the Hek293T Elk1 reporter assay, hGDF15 antagonising antibodies were able to prevent hGDF15-induced phosphorylation in a dose-dependent manner.

[00484] Representative results for antibodies to GFRAL preventing hGDF15-induced phosphorylation are shown in Table 28 below.

Table 28

Clone ID	IC_{50} (nM)
5F12	0.06
3P10	0.08
17J16	0.10
6G9	0.17
2B8	0.22
6N16	0.27
8C10	0.28
2B11	0.46
25M22	0.53
12A3	0.54

Clone ID	IC_{50} (nM)
1B3	0.57
19K19	0.61
1C1	0.61
8D8	0.63
22N5	0.90
2A9	0.94
2B3	1.48
24G2	1.86
5A20	1.80
2I23	NP
1A3	NP
P1B6	NP
P1H8	NP
P8G4	NP

NP = assay not performed

EXAMPLE 5: LIGAND COMPETITION, DOMAIN MAPPING AND EPITOPE BINNING

[00485] Antibodies that were selected for binding to GFRAL were evaluated in ligand competition binding assays, domain and epitope binning experiments.

[00486] Briefly, ligand competition binding assays were performed by capturing GFRAL-Fc protein or RET and GFRAL Fc-heterodimers onto ELISA plates by anti-human Fc. Plates were blocked using PBS/1%BSA. 15 µL of a dose titration of antibodies were added to the wells starting at 10 µg/mL with a 3x dilution and incubated at room temperature for 30 min. Without washing, biotinyated GDF15 (GFRAL ligand) was added to the wells for an additional 1 hr. After 3 washes, 15 µL of HRP-streptavidin secondary were added to the wells and incubated at room temperature for 1 hr. After 3 washes, 15 µL of TMB were used to develop the plate. A positive signal indicates that biotinylated GDF15 still binds to GFRAL captured on the plate and the antibody is not a ligand competitor. A negative signal indicates that biotinylated GDF15 no longer binds to GFRAL captured on the plate and the antibody is a ligand competitor.

[00487] Briefly, domain mapping assays were performed by transiently transfecting 293EXPI cells with nucleic acid sequences encoding GFRAL (SEQ , GFRAL domain 1, GFRAL domain 2, GFRAL domain 1+2, GFRAL domain 1+3, GFRAL domain 2+3, or GFRAL domain 3.

[00488] Seven GFRAL deletion constructs (Constructs 1 to 7) were tested, which included the following features contiguously from N-terminus to C-terminus: IgK signal sequence (depicted by lower case and underlined letters in the below sequences), FLAG tag sequence (depicted by lower case and italicized letters in the below sequences) and GFRAL protein sequences with various extracellular domain combinations (domain 1 depicted in bold capital letters; domain 2 depicted in underlined capital letters; domain 3 depicted in bold and underlined letters). Construct 1 (IgK-2Flag-GFRAL; SEQ ID NO: 1817) contained human GDF15 polypeptide (residues Q20 to L394), in which domains 1, 2 and 3 were present. Construct 2 (IgK-2Flag-GFRAL domain 1; SEQ ID NO: 1818) contained GFRAL-ΔD2,ΔD3 (residues Q20 to S130 and F317 to L394), in which domains 2 and 3 were deleted. Construct 3 (IgK-2Flag-GFRAL domain 2; SEQ ID NO: 1819) contained GFRAL-ΔD1,ΔD3 (residues S121 to C210 and F317 to L394), in which domains 1 and 3 are deleted. Construct 4 (IgK-2Flag-GFRAL domain 1+2; SEQ ID NO: 1820) contained GFRAL-ΔD3 (residues Q20 to C210 and F317 to L394), in which domain 3 was deleted. Construct 5 (IgK-2Flag-GFRAL domain 1+3; SEQ ID NO: 1821) contained GFRAL-ΔD2 (residues Q20 to S130 and C220 to L394), in which domain 2 was deleted. Construct 6 (IgK-2Flag-GFRAL domain 2+3; SEQ ID NO: 1822) contained GFRAL-ΔD1 (residues S121 to L394), in which domain 1 was deleted. Construct 7 (IgK-2Flag-GFRAL domain 3; SEQ ID NO: 1823) contained GFRAL-ΔD1,ΔD2 (residues A211 to L394), in which domains 2 and 3 were deleted.

[00489] Construct 1 (IgK-2Flag-GFRAL; SEQ ID NO: 1817)

mdmrvpaqllgllllwlrgarc*dykddddksaggdykddddkgg***QTNNCTYLREQCLR**
DANGCKHAWRVMEDACNDSDPGDPCKMRNSSYCNLSIQYLVESNF
QFKECLCTDDFYCTVNKLLGKKCINKSDNVKEDKFKWNLTTRSHHG
FKGMWSCLEVAEACVGDVVCNAQLASYLKACSANGNPCDLKQCQA
AIRFFYQNIPFNIAQMLAFCDCAQSDIPCQQSKEALHSKTCAVNMVPP
PT**CLSVIRSCQNDELCRRHYRTFQSKCWQRVTRKCHEDENCISTLS**
KQDLTCSGSDDCKAAYIDILGTVLQVQCTCRTITQSEESLCKIFQHM
LHRKSCFNYPTLSNVKGMALYTRKHANKITLTGFHSPFNGEVIYAAM
CMTVTCGILLLVMVKLRTSRISSKARDPSSIQIPGEL

[00490] Construct 2 (IgK-2Flag-GFRAL domain 1; SEQ ID NO: 1818)

mdmrvpaqllgllllwlrgarc*dykddddksaggdykddddkgg***QTNNCTYLREQCLR**
DANGCKHAWRVMEDACNDSDPGDPCKMRNSSYCNLSIQYLVESNF
QFKECLCTDDFYCTVNKLLGKKCINKSDNVKEDKFKWNLTTRSHHG
FKGMWSFNYPTLSNVKGMALYTRKHANKITLTGFHSPFNGEVIYAAM
CMTVTCGILLLVMVKLRTSRISSKARDPSSIQIPGEL

[00491] Construct 3 (IgK-2Flag-GFRAL domain 2; SEQ ID NO: 1819)

mdmrvpaqllgllllwlrgarc*dykddddksaggdykddddkgg*SHHGFKGMWSCLE
VAEACVGDVVCNAQLASYLKACSANGNPCDLKQCQAAIRFFYQNIPF
NIAQMLAFCDCAQSDIPCQQSKEALHSKTCFNYPTLSNVKGMALYTR
KHANKITLTGFHSPFNGEVIYAAMCMTVTCGILLLVMVKLRTSRISSKA
RDPSSIQIPGEL

[00492] Construct 4 (IgK-2Flag-GFRAL domain 1+2; SEQ ID NO: 1820)

mdmrvpaqllgllllwlrgarc*dykddddksaggdykddddkgg***QTNNCTYLREQCLR**
DANGCKHAWRVMEDACNDSDPGDPCKMRNSSYCNLSIQYLVESNF
QFKECLCTDDFYCTVNKLLGKKCINKSDNVKEDKFKWNLTTRSHHG
FKGMWSCLEVAEACVGDVVCNAQLASYLKACSANGNPCDLKQCQA
AIRFFYQNIPFNIAQMLAFCDCAQSDIPCQQSKEALHSKTCFNYPTLS
NVKGMALYTRKHANKITLTGFHSPFNGEVIYAAMCMTVTCGILLLVMV
KLRTSRISSKARDPSSIQIPGEL

[00493] Construct 5 (IgK-2Flag-GFRAL domain 1+3; SEQ ID NO: 1821)

mdmrvpaqllgllllwlrgarc*dykddddksaggdykddddkgg***QTNNCTYLREQCLR**
DANGCKHAWRVMEDACNDSDPGDPCKMRNSSYCNLSIQYLVESNF
QFKECLCTDDFYCTVNKLLGKKCINKSDNVKEDKFKWNLTTRSHHG
FKGMWSCLSVIRSCQNDELCRRHYRTFQSKCWQRVTRKCHEDENC
ISTLSKQDLTCSGSDDCKAAYIDILGTVLQVQCTCRTITQSEESLCKIF
QHMLHRKSCFNYPTLSNVKGMALYTRKHANKITLTGFHSPFNGEVIY
AAMCMTVTCGILLLVMVKLRTSRISSKARDPSSIQIPGEL

[00494] Construct 6 (IgK-2Flag-GFRAL domain 2+3; SEQ ID NO: 1822)

mdmrvpaqllgllllwlrgarc*dykddddksaggdykddddkgg*SHHGFKGMWSCLE
VAEACVGDVVCNAQLASYLKACSANGNPCDLKQCQAAIRFFYQNIPF
NIAQMLAFCDCAQSDIPCQQSKEALHSKTCAVNMVPPPT**CLSVIRSC**

QNDELCRRHYRTFQSKCWQRVTRKCHEDENCISTLSKQDLTCSGS DDCKAAYIDILGTVLQVQCTCRTITQSEESLCKIFQHMLHRKSCFNYP TLSNVKGMALYTRKHANKITLTGFHSPFNGEVIYAAMCMTVTCGILLL VMVKLRTSRISSKARDPSSIQIPGEL

[00495] Construct 7 (IgK-2Flag-GFRAL domain 3; SEQ ID NO: 1823)

mdmrvpaqllgllllwlrgarc*dykddddksaggdykddddkgg*AVNMVPPPT**CLSVIR SCQNDELCRRHYRTFQSKCWQRVTRKCHEDENCISTLSKQDLTCS GSDDCKAAYIDILGTVLQVQCTCRTITQSEESLCKIFQHMLHRKSC**F NYPTLSNVKGMALYTRKHANKITLTGFHSPFNGEVIYAAMCMTVTCGI LLLVMVKLRTSRISSKARDPSSIQIPGEL

[00496] Cells were incubated with 1 µg/mL of antibodies for 30 mins at 4°C. After washing, cells were incubated with a fluorochrome labeled anti-mouse Fc secondary antibody either A488 or A647 for 30 mins at 4°C. After washing, cells were analyzed by FACs. A positive signal indicates that the antibody binds to the domain overexpressed by the transfected 293EXPI cells. A negative signal indicates that the antibody does not bind to the domain overexpressed by the transfected 293EXPI cells.

[00497] Briefly, epitope binning assays were performed by directly coating plates with 2ug/mL of antibodies (mAb1). Plates were blocked using PBS/1%BSA. 2 µg/mL of antibodies (mAb2) were pre-incubated with 50ng/mL of GFRAL-Fc protein for 30 min before adding to wells at room temperature for 1 hr. After 3 washes, 15 µL of HRP-anti-human Fc secondary were added to the wells and incubated at room temperature for 1 hr. After 3 washes, 15 µL of TMB were used to develop the plate. A positive signal indicates that GFRAL-Fc protein still binds to the captured antibody (mAb1) on the plate and antibody (mAb2) is not in the same epitope bin as the captured antibody (mAb1). A negative signal indicates that GFRAL-Fc protein no longer binds to the captured antibody (mAb1) on the plate and antibody (mAb2) is in the same epitope bin as the captured antibody (mAb1).

[00498] Representative results for inhibition of GDF15 binding to GFRAL, domain mapping of GFRAL and epitope binning are shown in Table 29 below.

Table 29

Clone ID	Inhibition	GFRAL Domain	Epitope Bin
5F12	No	D3	4
3P10	No	D3	4
17J16	Partial	D2	1
6G9	No	D3	4
2B8	Yes	---	2
6N16	No	D3	4
8C10	Yes	D2	2
2B11	No	D3	4
25M22	Yes	D2	2
12A3	Yes	D2	2
1B3	No	D3	4
19K19	Yes	D2	2
1C1	Yes	D2	3
8D8	Yes	D2	1
22N5	Yes	D2	3
2A9	Yes	D2	3
2B3	Yes	ND	1
24G2	Yes	NA	1
5A20	Partial	D2	1
2I23	No	NA	4
1A3	No	D1	5
P1B6	No	D1	5
P1H8	No	D1	7
P8G4	No	D1	6

NA = does not apply; ND = no binding detected

[00499] As shown in Table 29 above, at least three classes of anti-GFRAL antibodies were identified, including antibodies that block GDF15 binding (*e.g.*, competitive antagonists), antibodies that do not block GDF15 binding (e.g., non-competitive antagonists), and partial blockers of GDF15 binding. Antibodies were also identified as binding to domain 1, domain 2 or domain 3 of GFRAL. The antibodies that bound to domain 2 were found to either inhibit GDF15 binding to GFRAL or at leastly partically inhibit this binding. The antibodies that bound to domains 1 or 3 did not inhibit GDF15 binding to GFRAL.

[00500] An alignment of exemplary anti-GFRAL antibodies assayed in Examples 2-4 and described above is shown in **FIGS. 4A-4B**.

[00501] Alignments of VH and VL domains for antibodies that were found to bind domain 1, domain 2 or domain 3 are shown in **FIGS. 5A-5F**, respectively.

EXAMPLE 6: HUMANIZATION

[00502] Humanized anti-GFRAL antibodies were generated, including from antibodies selected as described in Examples 1-5. Exemplary humanized antibodies are generated comprising one or more CDRs from Tables 1-24, including, for example, the CDRs for the antibody designated 1C1 (see, *e.g.*, Table 1), for the antibody designated 25M22 (see, *e.g.*, Table 8), for the antibody designated 17J16 (see, *e.g.*, Table 7), for the antibody designated 5F12 (see, *e.g.*, Table 4), and for the antibody designated 3P10 (see, *e.g.*, Table 2). The sequences of VH and VL regions for exemplary humanized antibodies 1C1, 25M22, 17J16, 5F12, and 3P10 are shown in **FIGs. 6A-6B, 7A-7B, 8A-8B, 9A-9B,** and **10A-10B**.

[00503] A number of anti-GFRAL antibodies were selected for sequencing and subsequently for humanization. An NCBI immunoglobulin (Ig) sequence blastp search was conducted to identify human germline sequences with significant similarity to mouse VH and VL sequences. Examples for potential human framework sequences are given in Table 30. Considering sequence similarities, biophysical properties and potential immunogenicity, germline sequences for IGH and IGK were chosen as human framework sequences. The germline sequences that were chosen are highlighted in bold in Table 30. In order to identify the best matching framework 4 sequence, a similar approach was taken for choosing JH and JK germline sequences, and these chosen sequences are also highlighted in bold in Table 30.

Table 30

Clone ID	**Human germline donor sequence for VH**	**Human germline donor sequence for JH**	**Human germline donor sequence for VL**	**Human germline donor sequence for JK**
3P10	IGHV1-18 IGHV1-3 IGHV1-46 IGHV1-2 **IGHV1-69**	**IGHJ6** IGHJ1	IGKV1-39 IGKV3-20 **IGKV2-30** IGK4-1 IGK3-11	**IGKJ4** IGKJ2
5F12	IGHV1-46 **IGHV1-3** **IGHV1-69** IGHV1-2	**IGHJ1** IGHJ3	**IGKV4-1** **IGKV2-30** IGKV1-39 IGKV3-11	**IGKJ4** IGKJ2

Clone ID	Human germline donor sequence for VH	Human germline donor sequence for JH	Human germline donor sequence for VL	Human germline donor sequence for JK
			IGKV1-5 IGKV1-27	
25M22	**IGHV5-51** IGHV1-46 IGHV1-3 IGHV1-2 **IGHV1-69** IGHV1-18	**IGHJ6** IGHJ4	IGKV2-29 IGKV2-28 IGKV2-18 **IGKV2-30** **IGKV3-20** IGKV1-39	**IGKJ4** IGKJ2
1C1	IGHV4-39 IGHV4-31 IGHV3-33 **IGHV4-59**	**IGHJ4** IGHJ6	**IGKV3-20** IGKV1-39 IGKV2-30 IGKV2-28	**IGKJ4** IGKJ2
17J16	IGHV1-2 IGHV1-46 IGHV1-3 **IGHV1-69**	**IGHJ6**	**IGKV2-30** IGKV2-29 IGKV2-40 IGKV3-20 IGKV1-39	**IGKJ4** IGKJ2
1A3	**IGHV5-51** IGHV1-69 IGHV1-46 IGHV1-2	**IGHJ6** IGHJ4	**IGKV2-28** IGKV2-30 IGKV4-1	**IGKJ4** IGKJ2
P1B6	**IGHV5-51** IGHV1-69 IGHV1-46 IGHV1-2	**IGHJ4** IGHJ1	**IGKV3-11** IGKV1-9 IGKV1-5 IGKV3-15 IGKV1-33 IGKV3-20	**IGKJ4** IGKJ2
P1H8	**IGHV5-51** IGHV1-69 IGHV1-46 IGHV1-2	**IGHJ6** IGHJ4	**IGHV2-28** IGHV2-30 IGHV4-1	**IGKJ4** IGKJ2
P8G4	**IGHV4-59** IGHV3-23 IGHV4-4 IGHV3-30	**IGHJ4** IGHJ6	**IGKV3-11** IGKV1-39 IGKV1-5 IGKV3-20	**IGKJ1** IGKJ2

[00504] The CDR sequences of murine antibodies were then transferred (*e.g.*, grafted) to the corresponding positions of human IGH and IGK and J-region residues corresponding to framework four were added. The resulting protein sequence was back translated into a DNA sequence, codon optimized for expression in mammalian cells and synthesized (GeneArt/LifeTechnologies). Subsequently, the synthesized DNA fragment was cloned using In-Fusion technology (Clontech) into pTT5 vector

(NRC Biotechnology Research Institute) to create expression ready constructs that contain a Kozak sequence, the hIgK signal peptide followed by the humanized variable-region of the desired antibody plus the constant region of the antibody (hIgG1/hIgK). At the same time individual residues in the framework regions were selected to be back-mutated to mouse residues in order to retain binding affinities. Special consideration was given to Vernier Zone residues. Such variants were either created by side directed mutatgenesis (QuickChange, Agilent) or de-novo DNA synthesis. Such expression constructs were then used for transient protein expression in Expi293 cells (Thermo Fischer), secreted antibodies were purified from tissue culture supernatant and tested for binding affinities. In order to optimize for binding affinity and lowest number of necessary back mutations, a second round of construct designs were typically made followed by antibody expression, purification and measurement of binding affinities.

[00505] Exemplary humanized anti-GFRAL antibodies include an antibody comprising: a VH that is SEQ ID NO: 1982 (HC-344e) and VL that is SEQ ID NO: 1997 (LC-344h), a VH that is SEQ ID NO: 1978 (HC-344a) and VL that is SEQ ID NO: 1992 (LC-344c); a VH that is SEQ ID NO: 1978 (HC-344a) and VL that is SEQ ID NO: 1997 (LC-344h); a VH that is SEQ ID NO: 1985 (HC-344h) and VL that is SEQ ID NO: 1997 (LC-344h); a VH that is SEQ ID NO: 1961 (HC-375d) and VL that is SEQ ID NO: 1976 (LC-375j); a VH that is SEQ ID NO: 1962 (HC-375e) and VL that is SEQ ID NO: 1976 (LC-375j); a VH that is SEQ ID NO: 1964 (HC-375g) and VL that is SEQ ID NO: 1967 (LC-375a); or a VH that is SEQ ID NO: 1964 (HC-375g) and VL that is SEQ ID NO: 1976 (LC-375j). [

EXAMPLE 7: SELECTION OF HUMANIZED ANTIBODIES

[00506] Exemplary humanized anti-GFRAL antibodies identified in Example 6 were assayed for their binding affinity to human GFRAL. Binding affinity measurements were made in Biacore based assays. For example, equilibrium dissociation constant (K_D) measurements were carried out with purified antibodies to evaluate their binding to human GFRAL. Using methods described in Example II, anti-mouse Fc antibody (Sigma-Aldrich, St. Louis, MO) was immobilized on all four flow cells of a CM5 chip using amine coupling reagents (GE Healthcare LifeSciences, Piscataway, NJ). Purified humanized anti-GFRAL antibodies were captured (~100 RUs) on flow cells

2, 3 and 4 using flow cell 1 as a reference. This was followed by injection of human GFRAL in PBS-P buffer) at a flow rate of 70 µL/min and the binding kinetics were evaluated at 25°C.

[00507] Representative results for binding affinity (*e.g.*, K_D (nM)) of exemplary humanized anti-GFRAL antibodies (*e.g.*, humanized 3P10 and humanized 5F12) to human GFRAL are shown in Tables 31 and 32 below.

Table 31

Humanized anti-GFRAL Antibodies	**Binding Affinity to Human GFRAL**
	K_D (pM)
3P10 Hybridoma	<10
HC-344a/LC-344c	12
HC-344a/LC-344h	<10
HC-344h/LC-344c	<10
HC-344e/LC-344h	<10
HC-344h/LC-344h	<10

Table 32

Humanized anti-GFRAL Antibodies	**Binding Affinity to Human GFRAL**
	K_D (pM)
5F12 Hybridoma	38
HC-375d/LC-375a	74
HC-375d/LC-375c	75
HC-375d/LC-375g	77
HC-375d/LC-375i	62
HC-375d/LC-375j	46
HC-375e/LC-375a	91
HC-375e/LC-375c	92
HC-375e/LC-375g	81
HC-375e/LC-375j	48
HC-375h/LC-375g	87
HC-375h/LC-375j	60
HC-375g/LC-375a	28
HC-375g/LC-375j	57

EXAMPLE 8: FUNCTIONAL ASSAYS OF HUMANIZED ANTIBODIES

[00508] Exemplary humanized anti-GFRAL antibodies described in Examples 6 and 7 were tested for their functional activity in cell-based reporter assays similar to that described in Example 3.

[00509] For example, ELK1-luciferase reporter assays, which measure human GDF15 (hGDF15)-induced human GFRAL/RET signaling, were performed using transfected U20S and HEK293T. The transfecting plasmids consisted of two reporter plasmids, Gal4-Elk1 and 5×UAS-Luc (Agilent Technologies PathDetect Elk1 trans-reporting system Cat# 219005), and plasmids encoding human GFRAL (hGFRAL and human RET (hRET). In these assays, hGDF15-induced activation of recombinantly expressed GFRAL/RET receptor complex in the cells triggers intracellular signaling transduction, which leads to ERK and then Elk1 phosphorylation. Once Gal4-Elk1 is phosphorylated, Gal4-Elk1 binds to the 5×UAS promoter region and turns on luciferase reporter gene transcription. The activity of luciferase is then measured in luciferase enzymatic assays.

[00510] Representative results for exemplary humanized antibodies to GFRAL (e.g., 3P10 and 5F12) inhibiting human GFRAL/RET signaling are shown in Table 33 and 34 below and in **FIG. 11**.

Table 33

Humanized anti-GFRAL Antibodies	IC_{50} (nM)
3P10 Hybridoma	4.02
HC-344a/LC-344c	7.26
HC-344a/LC-344h	4.63
HC-344h/LC-344c	29.4
HC-344e/LC-344h	6.95
HC-344h/LC-344h	5.7

Table 34

Humanized anti-GFRAL Antibodies	IC_{50} (nM)
5F12 Hybridoma	5.40
HC-375d/LC-375a	3.86
HC-375d/LC-375c	3.28
HC-375d/LC-375g	2.79
HC-375d/LC-375i	2.75

Humanized anti-GFRAL Antibodies	IC_{50} (nM)
HC-375d/LC-375j	3.11
HC-375e/LC-375a	2.81
HC-375e/LC-375c	2.20
HC-375e/LC-375g	2.27
HC-375e/LC-375j	4.01
HC-375h/LC-375g	3.98
HC-375h/LC-375j	7.29

[00511] For some experiments, the above mentioned four plasmids (*e.g.*, 2 reporter plasmids, GFRAL, RET) were transfected into newly harvested cells in suspension using FuGene6 transfection reagent (Promega). The GFRAL and RET DNA ratio in transfection was optimized for the each pair of receptors from indicated species and varied between 12:1 to 60:1. Transfected cells were seeded into 384-well plate (7500 cells/25 µL/well) in normal growth medium. After overnight incubation at 37°C, a mix of serially diluted antibodies and fixed concentration of hGDF15 were added. After 6 hrs at 37°C incubation with the antibodies, an equal volume of Bright-Glo reagent (Promega) was added and luminescence signal was read using Enspire reader (Perkin Elmer).

[00512] Simultaneous addition of humanized anti-GFRAL antibodies, antagonizing the hGDF15 effect, blocked hGDF15 signaling in a dose-dependent manner preventing expression of luciferase reporter gene.

EXAMPLE 9: ADDITIONAL FUNCTIONAL ASSAYS OF HUMANIZED ANTIBODIES

[00513] Exemplary humanized anti-hGFRAL antibodies were tested for their hGDF15 antagonising activity in an additional cell-based assay, such as an U2OS assay stably expressing hGFRAL and hRET, as described in Example 4. One day before the assay, the cells were plated in 90µl of DiscoveRx Assay Complete Cell Plating 16 Reagent (DiscoveRx, Cat#93-0563R16B) at 20K/each of 96 well plate. Next day the cells were treated with a mix of serially diluted antibodies and a fixed concentration of hGDF15 for 10 minutes at 37°C. Cis-bio Cellul'erk assay kit (Cat# 64ERKPEH) was used to assay for ERK phosphorylation level following the manufacturer's protocol.

[00514] Similar to the Hek293T Elk1 reporter assay described in Example 4, humanized anti-hGFRAL antibodies (*e.g.*, humanized 3P10) were able to prevent hGDF15-induced phosphorylation in a dose-dependent manner.

[00515] Representative results for humanized anti-GFRAL antibodies preventing hGDF15-induced phosphorylation are shown in Table 35 below and in **FIG. 12**.

Table 35

Humanized anti-GFRAL Antibodies	IC_{50} (nM)
3P10 Hybridoma	5.46
HC-344a/LC-344c	5.13
HC-344a/LC-344h	5.02
HC-344h/LC-344c	15.1
HC-344e/LC-344h	3.3
HC-344h/LC-344h	2.18

[00516] In a control experiment, GFRα1 (bound on chip surface) showed binding to its natural ligand GDNF (in solution, 50nM) (see **FIG. 13C)**.

[00517] Exemplary humanized anti-GFRAL antibodies (*e.g.* HC-344e + LC-344h) did not bind to receptor GFRα1, but showed high affinity binding to hGFRAL (**FIGS. 13A and 13B**) indicating specificity for GFRAL.

EXAMPLE 10: ANIMAL STUDIES

[00518] The effects of anti-GFRAL antibodies were evaluated in multiple animal studies.

A: Anti-GFRAL Antibodies Inhibit GDF15-Induced Weight Loss in DIO Mice (Acute)

[00519] To determine if an anti-GFRAL antibody is able to neutralize the GDF15-induced weight lowering effect in diet-induced obesity (DIO) mice, 17 week old male C57BL/6J DIO mice were used (Jackson Labs West, Sacramento, CA). Mice (41.3 g ± 0.4 g) were randomly assigned to receive an exemplary anti-GFRAL antibody (*e.g.*, 1C1, 3P10, 17J16, 5A20, 25M22, 5F12, 8D8 and 12A3) or an anti-GDF15 antibody (*e.g.*, 1MO3). Each group had 6 mice per group. Each treatment group had its own PBS control group. The antibody dosage was 20 mg/kg. One day post injections with either PBS or antibody, the mice then received 3 consecutive daily injections of a

GDF15 protein (*e.g.*, having an amino acid sequence of SEQ ID NO:1811) at 0.5 mg/kg. Daily body weight and food intake were recorded (day 1- 3 and day 7). Sartorius balance LE5201 was used for weighing. An automatic weighing record program (Sartorius YSW05 Software Wedge, Sartorius Mechatronics Corporation, 5 Orville Drive, Suite 200 Bohemia, NY 11716) was used to transmit the weight data to a Microsoft Excel spreadsheet automatically.

[00520] Data are presented by mean ± sem in term of raw body weight, delta body weight change and percentage of body weight change (*i.e.*, % of delta body weight change over baseline body weight). A Student's t-test was used (two tails, two ends). In these experiments, $P<0.05$ was considered as statistically significant.

[00521] Exemplary anti-GFRAL antibodies, 1C1, 3P10, 17J16, 5A20, 25M22, 5F12, 8D8 and 12A3, are able to reverse GDF15-induced body weight loss and food intake reduction (**FIGS. 14A and 14B**). An anti-GDF15 antibody also reversed GDF15-induced body weight loss and food intake reduction in this model.

[00522] To determine if a non-competitive anti-GFRAL antibody or a competitive anti-GFRAL antibody block exogenous GDF15-induced weight lowering effect in a dose-dependent manner, 19 week old male C57BL/6J DIO mice were used. Initially mice (43.1 g ± 0.3 g) were randomly assigned to PBS (8 mice per group) or a GDF15 protein (*e.g.*, having an amino acid sequence of SEQ ID NO: 1811) groups (0.1 mg/kg, 1.0 mg/kg, or 10 mg/kg, 24 mice per group). A GDF15 protein was confirmed to reduce body weight and food intake dose-dependently in the following day. Furthermore, the GDF15 treatment groups (0.1 mg/kg, 1.0 mg/kg, or 10 mg/kg) were randomly assigned to receive PBS, or an exemplary anti-GFRAL antibody (*e.g.*, 1C1 or 3P10) (8 mice per group). Daily body weight and food intake were recorded (day 1- 3 and day 7).

[00523] Exemplary anti-GFRAL antibodies reversed body weight reduction and food intake reduction that was induced by GDF15 (**FIGS. 15 and 16**).

B: Anti-GFRAL Antibodies Promote Body Weight Gain in DIO mice (Chronic)

[00524] To determine if an exemplary anti-GFRAL antibody is able to increase body weight independent of exogenous GDF15 protein in a DIO model, 14 week old male C57BL/6J DIO mice were used (Jackson Labs West, Sacramento, CA). Mice (34.5 g

± 0.8 g) were randomly assigned to receive either PBS or exemplary anti-GFRAL antibodies (*e.g.*, 1C1 or 3P10) at 10 mg/kg weekly. Each group had 10 mice per group. Daily body weight and food intake were recorded for 28 days. Sartorius balance LE5201 was used for weighing. An automatic weighing record program (Sartorius YSW05 Software Wedge, Sartorius Mechatronics Corporation, 5 Orville Drive, Suite 200 Bohemia, NY 11716) was used to transmit the weight data to a Microsoft Excel spreadsheet automatically. Body composition was also evaluated by EchoMRI.

[00525] Exemplary anti-GFRAL antibodies increased body weight (by 6% and 7%, respectively) and food intake (by 3.4% and 3.7%, respectively) in DIO Mice (**FIGS. 17 and 18**). The increase in body weight by the exemplary anti-GFRAL antibodies is mainly attributed to increased fat mass (**FIG. 19**).

C: Anti-GFRAL Antibodies Reverse GDF-15-induced Loss of Body Mass in DIO Mice

[00526] To determine if an exemplary anti-GFRAL antibody is able to neutralize the GDF15-induced weight lowering effect in DIO mice, 17 week old male C57BL/6J DIO mice were used (Jackson Labs West, Sacramento, CA) and a recombinant adeno-associated virus (rAAV) expressing GDF15 was constructed.

[00527] Construction of the rAAV was performed as follows: Polymerase chain reactions (PCR) reagents kits with Phusion® high-fidelity DNA polymerase were purchased from New England BioLabs (F-530L, Ipswich, MA). The PCR reactions were set up according to manufacturer's instruction. Amplified DNA fragments containing an Igk signal peptide followed by a GDF15 encoding sequence was digested with restriction enzymes Spe I and Not I (the restriction sites were included in the 5' or 3' PCR primers, respectively) and were then ligated with AAV transgene vectors that had been digested with the same restriction enzymes. The vector used for expression contained a selectable marker and an expression cassette composed of a strong eukaryotic promoter 5' of a site for insertion of the cloned coding sequence, followed by a 3' untranslated region and bovine growth hormone polyadenylation tail.

[00528] The DIO mice were subjected to a high fat diet (Research Diets, catalog # D12492NI). The high fat diet contained 60 kcal% fat, 20 kcal% protein and 20 kcal%

carbohydrate. The mice were administered a one-time tail vein injection of the rAAV described above or a control AAV vector expressing green fluorescent protein (GFP). 42 days post injection with rAAV expressing the GDF15 at $1x10^{10}$, mice were administered the exemplary anti-GFRAL antibody (3P10) or a control antibody (anti-KLH antibody) at a dose of 3 mg/kg. There were 20 mice per group. Mice body weight, lean and fat mass, energy expenditure and food intake were monitored over 12 weeks.

[00529] As shown in **FIG. 20**, the exemplary anti-GFRAL antibody (3P10) reversed the GDF15-induced loss of body weight and loss of fat and lean mass in DIO mice. Additionally, as shown in **FIG. 21**, the exemplary anti-GFRAL antibody reversed the GDF15-induced increase in energy expenditure and GDF15-induced reduction in food intake.

D: Anti-GFRAL Antibodies Reverse GDF-15-induced Loss of Body Mass in Lean Mice (Chronic)

[00530] To determine if an exemplary anti-GFRAL antibody is able to neutralize the GDF15-induced weight lowering effect in lean mice, 15 week old male C57BL/6J mice were used (Jackson Labs West, Sacramento, CA). The mice were placed on a Chow Diet. As described in Example 11, part c, the mice were administered a one-time tail vein injection of the rAAV expressing GDF15 at $1x10^{10}$ or a control AAV vector expressing green fluorescent protein (GFP). 28 days post injection with rAAV expressing the GDF15, mice were administered the exemplary anti-GFRAL antibody (3P10) or a control antibody (anti-KLH antibody) at a dose of 3 mg/kg. There were 20 mice per group. Mice body weight, lean and fat mass, energy expenditure and food intake were monitored over 12 weeks.

[00531] As shown in **FIG. 22**, the exemplary anti-GFRAL antibody reversed the GDF15-induced loss of body weight, which included a reversal of both loss of fat mass and loss of lean mass in lean mice. Additionally, as shown in **FIG. 23**, the exemplary anti-GFRAL antibody reversed the GDF15-induced change in respitory exchange ratio (RER) and GDF15-induced reduction in food intake in lean mice.

E: Anti-GFRAL Antibodies Do Not Increase Body Weight Independent of GDF15-Induced Weight Loss in Lean Mice

[00532] To determine if an exemplary anti-GFRAL antibody is able to increase body weight independent of exogenous GDF15 protein in lean mice, 15 week old male C57BL/6J mice were used (Jackson Labs West, Sacramento, CA). Mice (26.1 g ± 0.3 g) were randomly assigned to receive either PBS or an exemplary anti-GFRAL antibody (*e.g.*, 1C1 or 3P10) at 10 mg/kg weekly. Each group had 10 mice per group. Daily food intake and body weight were recorded in the first week, and then recorded weekly for another 3 weeks. Sartorius balance LE5201 was used for weighing.

[00533] Repeat doses of exemplary anti-GFRAL antibodies 1C1 and 3P10 do not significantly alter body weight and food intake in lean mice, although antibody 3P10 showed a weak trend to increase body weight (**FIGS. 24 and 25**).

F: Anti-GFRAL Antibodies Reverse Body Weight Loss and Increased Energy Expenditure in Mice with Chronic Kidney Damage

[00534] To determine if an exemplary anti-GFRAL antibody is able to reverse loss of body weight and increased energy expenditure in DIO mice with chronic kidney damage, 15 week old male C57BL/6J mice were used (Jackson Labs West, Sacramento, CA). After 5 weeks on HFD + adenine diet (0.3% @ induction phase for 10 days, then reducing to 0.1% @ maintainance phase for another 3 weeks), DIO Mice (26.1 g ± 0.3 g) were randomly assigned to receive either control antibody (anti-KLH) or exemplary anti-GFRAL antibodies (*e.g.*, 3P10) at 1 mg/kg weekly. Each group had 12 mice per group. Daily body weight was recorded in the first week, and then recorded weekly for another 8 weeks. Sartorius balance LE5201 was used for weighing.

[00535] As shown in **FIG. 26A,** in order to verify the effect of adenine on kidney function, 10-day treatment with dietary adenine (0.25% adenine in HFD) was shown to induce kidney damage in mice. Dietary adenine also increased serum GDF15 levels (see **FIG. 26B**) and promoted weight loss (see **FIG. 26C**). Additionally, dietary adenine increased energy expenditure in mice (see **FIG. 27A**).

[00536] As shown in **FIG. 27B**, the exemplary anti-GFRAL antibody reversed the increased energy expenditure in mice with chronic kidney damage. Additionally, as shown in **FIG. 28**, the exemplary anti-GFRAL antibody reversed the loss of body weight and loss of fat and lean mass in mice with chronic kidney damage.

G: Humanized Anti-GFRAL Antibodies Inhibit GDF15-Induced Weight Loss in a Dose-Dependent Manner

[00537] To determine if an humanized anti-GFRAL antibody is able to neutralize the GDF15-induced weight lowering effect in diet-induced obesity (DIO) mice, 17 week old male C57BL/6J DIO mice were used (Jackson Labs West, Sacramento, CA). Initially mice (42 g ± 0.4 g) were randomly assigned to PBS (8 mice per group) or a GDF15 protein (56 mice per group). A GDF15 protein was confirmed to reduce body weight and food intake dose-dependently in the following day. Furthermore, 8 mice per group were randomly assigned to receive either an vehicle (anti-KLH) or an exemplary mouse anti-GFRAL antibody (*e.g.*, m3P10) at a dosage of 1.0 mg/kg, or an exemplary humanized anti-GFRAL antibody (*e.g.*, h3P10 = HC-344e + LC-344h) at dosages of 0.1 mg/kg, 0.3 mg/kg, 1.0 mg/kg, 3 mg/kg or 10 mg/kg. Daily body weight was recorded (day 1-7). Sartorius balance LE5201 was used for weighing. An automatic weighing record program (Sartorius YSW05 Software Wedge, Sartorius Mechatronics Corporation, 5 Orville Drive, Suite 200 Bohemia, NY 11716) was used to transmit the weight data to a Microsoft Excel spreadsheet automatically.

[00538] Data are presented by mean ± sem in term of delta body weight change. A Student's t-test was used (two tails, two ends).

[00539] Exemplary humanized anti-GFRAL antibody HC-344e + LC-344h is able to inhibit GDF15-induced body weight loss in a dose-dependent manner (**FIG. 29**).

EXAMPLE 11: CRYSTAL STRUCTURE OF GFRAL/GDF15 COMPLEX

A: Complex Formation and Crystallization

[00540] A complex of a GFRAL protein and a GDF15 protein was made by mixing 1.2 molar excess of a GFRAL (W115-E351) protein with 1 molar GDF15 protein subunit (0.5 molar GDF15, which is a homodimer of two GDF15 subunits linked by a pair of disulfide bonds). The complex was purified by size exclusion chromatography to remove excess GFRAL. The GFRAL/GDF15 complex was crystallized by mixing 1 µL protein at 5 mg/ml with 0.5 µL reservoir solution and 0.5 µL seed in a crystallization drop, with the reservoir solution containing 1.0 mL of 0.1 M Bis-Tris pH 6.0, 1.5 M $(NH_4)_2SO_4$ and 10 % ethylene glycol. The seed crystals were obtained from a crystallization condition including a reservoir solution of 0.1 M Bis-Tris pH 6.0 and 1.5 M $(NH_4)_2SO_4$. The crystallization setup was kept at room temperature in

Rigaku 24 well clover leaf plate. The crystallization drop showed small needle crystals after three days of incubation.

[00541] An exemplary small needle crystal of a comples of a GFRAL protein and a GDF15 protein is shown in **FIG. 30**.

[00542] The molecular model was not available for GFRAL, hence NaBr soaking was used to determine crystal phasing. A GFRAL/GDF15 crystal obtained as described above was soaked with 0.5 M NaBr and 0.75 M NaBr containing reservoir solution. After 30 minutes, 0.5 M NaBr soaked crystals were in good condition, whereas 0.75 M NaBr soaking yielded cracked crystals. Crystals from both soaks and un-soaked crystals were mounted with 30 % EG as a cryo-protectant.

[00543] The model described herein provides the first structural information for a GFRAL protein and the binding of a GFRAL protein to a GDF15 protein.

B: Data Collection and Structure Determination

[00544] GFRAL/GDF15 complex crystals were obtained and harvested from a 0.1 M Bis-Tris pH 6.0, 1.5 M $(NH_4)_2SO_4$ and 10% ethylene glycol reservoir condition as soaked and unsoaked crystals from 0.5 M and 0.7 M NaBr soaks. The crystals were treated with the mother liquor supplemented with 20% ethylene glycol as cryoprotectant and flash-frozen in liquid nitrogen. These crystals were then examined for x-ray diffraction at the synchrotron beamline IMCA-CAT, Advanced Photon Source, Argonne National Lab (ALS). The crystal diffracted up to 2.28-2.20 Å resolution.

[00545] X-ray diffraction statistics for exemplary GFRAL/GDF15 complex crystals are shown in Table 36.

Table 36

Data collection statistics	Crystal I
Wave length	0.9786 Å
Space group	$P2_1$
Unit cell (Å)	*a*= 75.352 *b*= 88.768 *c*= 121.293
Resolution (Å)†	50-2.20 (2.28-2.20)
Number of measurements	118,710
Number of unique reflections	20,379
R_{sym} (%)†	0.09 (0.58)
Completeness (%)†	97.4 (85.4)
I/σ †	18.9(2.2)
Redundancy†	5.8 (4.9)
Molecules in the A.U.	1 GFRAL 1 GDF15

†The parenthesis is for the highest resolution shell in Å.

[00546] Molecular replacement of GFRAL/GDF15 was performed by using the scaled dataset with a previously solved GFRAL/GDF15 complex at 3.2 Å resolutions as a starting model and the rigid body refinement (*See* Vagin, A. A., et al., (2004) "REFMAC5 dictionary: Organization of prior chemical knowledge and guidelines for its use." Acta Crystallogr. D 60:2284-2295) and initial positional refinement was completed in REFMAC5 as implemented in CCP4. Several rounds of model rebuilding resulted in structures of the GFRAL/GDF15 complex.

[00547] Exemplary structures of a complex of a GFRAL protein and a GDF15 protein are shown, for example, in **FIG. 31-39B**.

[00548] Inspection of the initial electron density maps showed unambiguous density for GFRAL and GDF15. After rigid body refinement, several rounds of model building and restrained refinement were performed using COOT (*See* Emsley, P. and Cowtan, K. (2004) "COOT: model-building tools for molecular graphics." Acta Crystallogr. D 60:2126-2132). After placement of the solvent molecules final refinement was completed.

[00549] The atomic coordinates from the x-ray diffraction patterns for the GFRAL/GDF15 complex are found in Table 49.

[00550] Refinement statistics for exemplary crystals are shown in Table 37.

Table 37

Refinement Statistics	
Refinement Range (Å)	35.82-2.20
R_{cryst} (%)	20.1
R_{free} (%)	26.2
Molecules GDF15, GFRAL; Water molecules	1,1; 132
Bond lengths (Å)	0.019
Bond angles (°)	1.943
Average *B*-factors (Å^2)	Overall
Main chain atoms (GDF15, GFRAL)	43.9, 57.6
Side chain atoms (GDF15, GFRAL)	51.2, 66.8
Water molecules	56.7
Ramachandran Plot (%)	Overall
Favored	96.3
Allowed	2.7
Disallowed	1.0

[00551] The clear electron density for GFRAL in an exemplary GFRAL/GDF15 complex crystal is illustrated in **FIG. 31**. **FIG. 31** shows an electron density map (2fo-fc) for the GFRAL molecule calculated with 2.20 Å resolution data and contoured at the 1σ level. The GFRAL residues are clearly visible.

C: Crystal Structure of GFRAL/GDF15 Complex

[00552] The crystal structure of a complex of a GFRAL protein and a GDF15 protein was determined.

[00553] Core interaction interface amino acids were determined as being the amino acid residues (on a protein such as GFRAL) with at least one atom less than or equal to 4.5 Å from the GFRAL interacting proteins (such as GDF15). 4.5 Å was chosen as the core region cutoff distance to allow for atoms within a van der Waals radius plus a possible water-mediated hydrogen bond.

[00554] Boundary interaction interface amino acids were determined as the amino acid residues (on a protein such as GFRAL) with at least one atom less than or equal to 5 Å from core interaction interface amino acids on GFRAL that interact with

GFRAL interacting proteins (such as GDF15). Less than or equal to 5 Å was chosen as the boundary region cutoff distance because proteins binding to residues less than 5 Å away from core interaction interface amino acids on GFRAL will be within the van der Waals radius of GFRAL interacting proteins.

[00555] Amino acids that met these distance criteria were calculated with the Molecular Operating Environment (MOE) program from CCG (Chemical Computing Group).

[00556] **FIG. 32** shows an exemplary illustration of a heterodimeric GFRAL/GDF15 complex, as found in the asymmetric unit of a GFRAL/GDF15 protein crystal. The dimeric molecule GDF15 has one intermolecular disulfide link, which was found to be weak due to radiation damage. One side of a GDF15 molecule can form a dimer in the asymmetric unit. **FIG. 33** shows an exemplary dimeric arrangement of the GFRAL/GDF15 hetero dimers in a GFRAL/GDF15 crystal.

[00557] **FIG. 34A-34B** illustrate the extent of the protein-protein contacts on a GFRAL-GDF15 interface. The contact region on GFRAL is indicated by light gray arrows; the contact region on GDF15 is indicated by the black arrows.

[00558] **FIG. 35** shows that three α-helices of GFRAL are involved in a GFRAL/GDF15 interface. Multiple disulfide bridges appear to stabilize the structural arrangement of the three GFRAL α-helices.

[00559] **FIGS. 36A-36D** illustrate different aspects of a GFRAL/GDF15 interface and the core and boundary amino acid residues of a GFRAL protein and a GDF15 protein involved in forming a GFRAL/GDF15 interface. The GFRAL protein and the GDF15 protein are depicted as ribbon diagrams with residues in the GFRAL/GDF15 interface shown in a space-filled surface representation. **FIGS. 36A-36C** show core interaction interface amino acids of the GFRAL protein and the GDF15 protein. **FIG. 36D** shows boundary interaction interface amino acids.

[00560] The amino acid sequence of a full-length precursor human GFRAL protein is shown below:

GFRAL sequences

```
        10         20         30         40         50
MIVFIFLAMG LSLENEYTSQ TNNCTYLREQ CLRDANGCRH ANRVMEDACN
        60         70         80         90        100
DSDPGDPCKM RNSSYCNLSI QYLVESNFQF KECLCTDDFY CTVNKLLGKK
       110        120        130        140        150
CINKSDNVKE DKFKWNLTTR SHHGFRGMNS CLEVAEACVG DVVCNAQLAS
       160        170        180        190        200
YLKACSANGN PCDLKQCQAA IRFFYQNIPF NIAQMLAFCD CAQSDIPCQQ
       210        220        230        240        250
SKEALHSKTC AVNMVPPPTC LSVIRSCQND ELCRRHYRTF QSKCWQRVTR
       260        270        280        290        300
KCHEDENCIS TLSKQDLTCS GSDDCKAAYI DILGTVLQVQ CTCRTITQSE
       310        320        330        340        350
ESLCKIFQHM LHRKSCFNYP TLSNVKGMAL YTRKHANKIT LTGFHSPFNG
       360        370        380        390
EVIYAAMCMT VTCGILLLVM VKLRTSRISS KARDPSSIQI PGEL
```

SEQ ID NO: 1797

[00561] GFRAL amino acids at the interface of the GFRAL/GDF15 complex are shown in Table 38.

Table 38

GFRAL Residues Binding GDF15*		
Core interaction interface amino acids		Boundary interaction interface amino acids
GLY140		SER156
LEU148		GLN147
ALA149		LEU148
ALA146		ALA149
VAL142		SER150
ASN145		TYR151
VAL139		LEU152
ALA135		LYS153
GLU136		ALA154
LEU152		CYS155
LEU132		PHE174
SER201		TYR175
ALA204		GLU136
LEU205		ALA137
LYS153		CYS138
ILE196		VAL139
PRO197		GLY140
GLN200		ASP141

GFRAL Residues Binding GDF15*		
Core interaction interface amino acids		Boundary interaction interface amino acids
		VAL142
		VAL143
		CYS144
		ASN145
		ALA146
		LEU186
		CYS189
		CYS191
		ALA192
		GLN193
		SER194
		ASP195
		ILE196
		PRO197
		CYS198
		GLN199
		GLN200
		SER201
		LYS202
		GLU203
		ALA204
		LEU205
		HIS206
		SER207
		SER130
		CYS131
		LEU132
		GLU133
		VAL134
		ALA135

*GFRAL amino acid numbering according to SEQ ID NO: 1797

[00562] The amino acid sequence of mature human GDF15 is shown below:

ARNGDHCPLG PGRCCRLHTV RASLEDLGWA DWVLSPREVQ VTMCIGACPS QFRAANMHAQ IKTSLHRLKP DTVPAPCCVP ASYNPMVLIQ KTDTGVSLQT YDDLLAKDCH CI (SEQ ID NO: 1811)

[00563] GDF15 residues at the interface of the GFRAL/GDF15 complex are shown in Table 39.

Table 39

Residues on GDF15 that bind to GFRAL*		
Core interaction interface amino acids		Boundary interaction interface amino acids
SER35		SER35
LEU34		VAL33
THR94		LEU34
GLY95		ASP93
GLN40		THR94
VAL96		GLY95
LEU98		VAL39
PRO36		GLN40
VAL87		ARG37
LEU88		GLU38
ILE89		VAL96
ASP102		SER97
THR100		LEU98
PRO85		PRO36
MET86		VAL87
		LEU88
		ILE89
		VAL41
		GLN90
		LYS91
		THR92
		THR42
		LEU104
		LEU105
		TYR101
		ASP102
		ASP103
		GLN99
		THR100
		LEU24
		TRP32
		TRP29
		ARG21
		THR19
		TYR83
		ASN84
		PRO85
		MET86
		VAL20

*GDF15 amino acid numbering according to SEQ ID NO: 1811

D: Model of GFRAL/RET/GDF15 Complex

[00564] The RET/GFRα1/GDNF ternary complex described by Goodman et al. (2014) CELL REPORTS 8, 1894-1904 (PDB 4UX8) was used as a template to build a model of the complex of GFRAL/GDF15 /RET (from GFRAL/GDF15 structure, *see, e.g.*, Examples 11-13). The RET/GFRα1/GDNF template resulted from an electron microscopy reconstruction of a reconstituted mammalian RET(ECD)-GDNF-GFRα1 ternary complex (Goodman et al., *supra*).

[00565] To compare the structural similarity of the GFRAL/GDF15 crystal structure from Example 12 and the structure of GFRα1/GDNF in the RET/GFRα1/GDNF template, the GFRAL structure in GFRAL/GDF15 crystal was superposed with GFRα1 in GFRα1/GDNF/RET model (PDB 4UX8) using MOE from CCG. The high quality of the superposition, and therefore the structural similarity of the GFRAL/GFRα1 and GFRAL/GDF15 complexes was demonstrated by an RMSD of GFRAL/GFRα1 backbone residues of 2.21 Å. This ternary complex model, including the GFRAL/GDF15 structure and the RET structure, was used to map the interactions between GFRAL and RET .

[00566] **FIGS. 37A-37B** illustrate exemplary aspects of the superposition of GFRAL and GFRα1 in 4XU8. RMSD of backbone residues was 2.21 Å.

[00567] **FIGS. 38A-38D** illustrate exemplary aspects of the interaction of a GFRAL protein with a RET protein in a RET/GFRAL/GDF15 model. In **FIG. 38A**, interacting GFRAL and GDF15 residues at the GFRAL/GDF15 interface as modeled are represented by stick models. In **FIG. 38B**, the RET-interacting residues on GFRAL are depicted in a space filled surface model. In **FIG. 38C**, the space filled surface model of the core interaction residues are highlighted on GFRAL and RET. In **FIG. 38D**, the space filled surface model of the boundary interaction residues are highlighted on GFRAL and RET.

[00568] **FIGS. 39A-39B** illustrate the core and boundary amino acid residues on a GFRAL protein identified in space filled surface models at the modeled RET interface. In **FIG. 39A**, core residues on GFRAL as modeled are shown in a darker grey in a space-filled surface model. In **FIG. 39B**, boundary residues on GFRAL as modeled are shown in a lighter grey in a space filled surface model.

[00569] Based on this modeling, a number of GFRAL residues were identified for interaction with RET residues, as shown in Table 40A. Additionally, a number of RET residues were identified for interaction with GFRAL residues, as shown in Table 40B.

Table 40A

Residues on GFRAL that bind to RET in RET/GFRAL/GDF15 Model	
Core interaction interface amino acids	Boundary interaction interface amino acids
GLN246	ILE224
ARG247	ARG225
ARG250	GLN241
LYS251	SER242
CYS252	LYS243
ASP255	CYS244
GLU256	TRP245
ASN257	GLN246
CYS258	ARG247
ILE259	VAL248
SER260	THR249
THR261	ARG250
LEU262	LYS251
THR297	CYS252
GLN298	HIS253
SER299	GLU254
	ASP255
	GLU256
	ASN257
	CYS258
	ILE259
	SER260
	THR261
	LEU262
	SER263
	LYS264
	GLN265
	ASP266
	LEU267
	THR268
	THR295
	ILE296

Residues on GFRAL that bind to RET in RET/GFRAL/GDF15 Model	
Core interaction interface amino acids	Boundary interaction interface amino acids
	THR297
	GLN298
	SER299
	GLU300
	GLU301
	SER302
	LEU303
	ILE306
	PHE307
	MET310

Table 40B

Residues on RET that bind to GFRAL in RET/GFRAL/GDF15 Model	
Core interaction interface amino acids	Boundary interaction interface amino acids
GLY74	ASP34
THR75	ALA35
TYR76	TYR36
ARG77	HIS71
THR78	TYR73
ASN113	LEU72
ARG114	GLY74
PHE116	TYR76
TYR122	THR75
GLN138	ARG77
ARG144	THR78
PRO305	ARG79
ALA306	LEU80
LEU310	LEU109
	SER110
	VAL111
	ARG112
	ASN113
	GLY115
	ARG114

Residues on RET that bind to GFRAL in RET/GFRAL/GDF15 Model	
Core interaction interface amino acids	Boundary interaction interface amino acids
	PHE116
	PRO117
	LEU118
	THR120
	VAL121
	TYR122
	LEU123
	LYS124
	CYS137
	GLN138
	TRP139
	PRO140
	GLY141
	CYS142
	ALA143
	ARG144
	VAL145
	TYR146
	PHE147
	ARG231
	ASP264
	ASP300
	VAL303
	VAL304
	PRO305
	ALA306
	SER307
	GLY308
	GLU309
	LEU310
	ARG312
	VAL311
	ASN336

EXAMPLE 12: CRYSTAL STRUCTURES OF GFRAL/ANTIBODY COMPLEXES

A1: Complex Formation and Crystallization of GFRAL/3P10/25M22 Fab Complex

[00570] A complex of a GFRAL protein, a 3P10 Fab and a 25M22 Fab (GFRAL/3P10/25M22 Fab complex) was formed by mixing GFRAL(W115-E351) with Fabs of 3P10 and 25M22 in a 1:1.2:1.2 molar ratio of GFRAL: 3P10 Fab: 25M22 Fab. The complex was purified from excess Fab molecules on a size exclusion chromatography column. The GFRAL/3P10/25M22 Fab complex was concentrated and crystallized as follows.

[00571] A volume of 1.5 mL of 3P10 Fab::GFRAL::25M22 Fab complex sample was concentrated by centrifugation to about 6.6 mg/mL using 10,000 MWCO Centricon® concentrator. The concentrated sample was immediately subjected to crystallization screening using 1 µL protein plus 1 µL reservoir per experiment. A first set of 96 conditions were set up that covered a factorial-based formulation sampling for the reservoir content. The crystallization setups were incubated at room temperature. Hampton Index and PegRx crystallization screens were used in the initial rounds of crystallization. The Hampton Index screen did not yield any potential hits, whereas the PegRx sreen yielded crystals under the following three crystallization conditions B11, D11, and H8:

- B11: 0.1 M MES pH 6.0, 20% PEGMME 2000
- D11: 0.1 M Imidazole pH 7,0, 12%, PEG 20,000
- H8: 0.1 M TRIS pH 8.0, 16% PEG 10,000, 0.2 M Amonium Acetate.

[00572] Exemplary crystals of GFRAL/3P10/25M22 Fab complexes obtained under crystallization conditions B11, D11, and H8 are shown in **FIG. 40**.

[00573] To further optimize crystals for X-ray diffraction, GFRAL/3P10/25M22 complex was concentrated to 5.0 mg/mL and set up for crystallization and additional optimization, which led to improved crystals. Some improved crystals had a trapezium form. Some of the improved crystals were harvested, treated with a compatible cryoprotectant, and flash-frozen in liquid nitrogen. Identification and use of a compatible cryoprotectant was important to maintain sample crystallinity and to collect a high quality X-ray diffraction data set. Improved crystals obtained from a crystallization condition including 0.1 M Imidazole pH 7.0, 12 % PEG 20,000 (D11)

were treated with 35 % ethylene glycol. Multiple crystals were flash-frozen in liquid nitrogen and X-ray diffraction data was collected at a synchrotron (ALS). One crystal diffracted to about 2.9 Å resolution. A full X-ray diffraction dataset was collected with this crystal.

[00574] The GFRAL/3P10/25M22 Fab complex crystal structure was determined. The position of the GFRAL component was clearly identified by molecular replacement based on the higher α-helix content in GRAL compared to 3P10 and 25M22 Fabs. In the exemplary crystal described here, one GFRAL and two Fab components (one 3P10 Fab and one 25M22 Fab) formed a ternary complex in the asymetric crystal unit.

[00575] Molecular replacement was used to identify Fabs in the GFRAL/3P10/25M22 Fab complex. PDB 1F8T, was the closest GFRAL homolog available for molecular replacement analysis (~54% identity and ~79% similarity to GFRAL). The structure solution clearly showed all Fab and GFRAL amino acid positions. The 1F8T GFRAL homolog struture was used as a stepping stone to solve the Fab and GFRAL components of the GFRAL/3P10/25M22 terniary complex crystal structure. In this structure, the stoichiometry in the was determined to be 1:1:1 3P10 Fab::GFRAL::25M22 Fab.

A2: Complex Formation and Crystallization of GFRAL/8D8/5f12 Fab Complex

[00576] A complex of a GFRAL protein, an 8D8 Fab and a 5F12 Fab (GFRAL/8D8/5F12 Fab complex) was formed by mixing GFRAL(W115-E351) with Fabs of 8D8 and 5F12 in a 1:1.2:1.2 molar ratio of GFRAL: 8D8 Fab: 5F12 Fab. The complex was purified from excess Fab molecules on a size exclusion chromatography column. The GFRAL/8D8/5F12 Fab complex was concentrated and crystallized as follows.

[00577] GFRAL/5F12/8D8 Fab complex was concentrated by centrifugation using 10,000 MWCO Centricon® concentrator. The concentrated sample was immediately subjected to crystallization screening using 1 µL protein plus 1 µL reservoir per experiment. A set of 96 conditions were initially set up that cover a factorial-based formulation sampling for the reservoir content. The crystallization setups were

incubated at room temperature. Positive leads from initial screens were further optimized to yield high quality crystals that were amenable to diffraction analysis.

A volume of 1.5 mL of 5F12 Fab::GFRAL::8D8 Fab complex sample is concentrated by centrifugation to about 7.8 mg/mL using 10000 MWCO Centricon concentrator. Immediately upon completion, this sample is subjected to crystallization screening using 1 µL protein plus 1 µL reservoir per experiment. A set of 96 conditions are initially setup that cover a factorial-based formulation sampling for the reservoir content. These setups are incubated at room temperature. Initially, Hampton Index and PegRx crystallization screens were used for crystallization, Index and PegRx gave crystals in the following three crystallization conditions C6, E11, and C2:

- C6: 0.1 M Bis-Tris pH 6.5, 14 % PEG 3350
- E11: 1.7 M AmSO4, 0.1 M Bis-Tris pH 6.5, 3 % PEG MME 550
- C2: 0.1 M Imidazole pH 7.0, 20 % Jeffamine 2001.

[00578] Preliminary crystals were obtained as shown in **FIG. 41**.

[00579] Optimization of PegRx C6 and C2 crystallizing conditions was conducted by micro seeding technique, which lead to suitable diffraction mono-crystals. These suitable diffraction mono-crystals have a hexagonal bipyramid form obtained in 10% Ethylene glycol with 0.1 M Imidazole pH 7.0, 20 % Jeffamine 2001 pH 7.0. Some of these crystals were harvested; treated with a compatible cryoprotectant; and flash-frozen in liquid nitrogen. Use of a compatible cryoprotectant is important to maintain the sample crystallinity, which results in a workable data set. The crystals were treated 20 % MPD obtained from 0.1 M Imidazole pH 7.0, 20% Jeffamine 2001 pH 7.0.

B1: Data Collection and Structure Determination of GFRAL/3P10/25M22 Fab Complex

[00580] X-Ray diffraction data was collected for twenty crystals of the GFRAL/3P10/25M22 Fab complex at a synchrotron (ALS). The first ten crystals yielded one complete data set with a resolution of 3.17 Å. Ten additional crystals that were further optimized diffracted up 2.9 Å, and this data set was used for structure determination and refinement. The X-ray diffraction data was indexed using DENZO and subsequently integrated and scaled with SCALEPACK from the program suite HKL2000. *See* Otwinowski Z. and Minor W. "Processing of X-ray

Diffraction Data Collected in Oscillation Mode ," METHODS IN ENZYMOLOGY, Volume 276: Macromolecular Crystallography, part A, p.307-326, 1997,C.W. Carter, Jr. & R. M. Sweet, Eds., Academic Press (New York). The X-ray diffraction of the selected crystal was identified as having an orthorhombic Bravais lattice symmetry. The space group was determined to be $P2_12_12_1$ based on the systematic absences along (*h*, *0*, *0*), (*0*, *k*, *0*), and (*0*, *0*, *l*) axes. Analysis of the Matthew's coefficient suggests the crystal's asymmetric unit may accommodate one assembly with approximately 124.4 kDa and a corresponding solvent content of 56%.

[00581] X-ray diffraction statistics for exemplary GFRAL/3P10/25M22 Fab complex crystals are shown in Table 41.

Table 41

Data collection statistics	**Crystal I**
Wavelength	0.9774 Å
Space group	$P2_12_12_1$
Unit cell (Å)	*a*= 52.500 *b*= 116.045 *c*= 227.048
Resolution (Å)†	50-2.91 (3.01-2.91)
Number of measurements	227,808
Number of unique reflections	31,548
R_{sym} (%)†	0.11 (0.86)
Completeness (%)†	100 (100)
I/σ †	17.8 (2.7)
Redundancy†	7.2 (7.2)
Molecules in the A.U.	2 Fabs 1 GFRAL

†The parenthesis is for the highest resolution shell in Å.

[00582] Molecular replacement of the GFRAL/3P10/25M22 Fab Complex was performed by using the scaled dataset with the previously solved GFRAL (*see* Example 12, part C) and the 79 % homologous GFRAL structure of 1F8T as starting models within the program PHASER. Data extending from 40-3.5 Å resolution gave one GFRAL and one Fab. Molrep yielded one more Fab in the structure solution. The solution had a complex of one GFRAL and two Fabs in the asymmetric unit. The solution was refined using REFMAC. COOT was used for model building. The

refinement density clearly indicates missing loops in Fabs and GFRAL. After placement of a few solvent molecules final refinement was completed.

[00583] The atomic coordinates from the x-ray diffraction patterns for the GFRAL/3P10/25M22 Fab Complex are found in Table 50.

[00584] Exemplary refinement statistics of a GFRAL/3P10/25M22 Fab Complex crystal structure are shown in Table 42.

Table 42

Refinement Statistics	
Refinement Range (Å)	47.7-2.9
R_{cryst} (%)	23.6
R_{free} (%)	31.0
Molecules 3P10 Fab::GFRAL::25M22 Fab	1,1,1
Bond lengths (Å)	0.011
Bond angles (°)	1.651
Average *B*-factors (Å^2)	Overall
Main chain atoms (GFRAL)	66.3
Side chain atoms (GFRAL)	71.6
Main chain atoms (3P10) Hc:Lc	92.7; 75.5
Side chain atoms (3P10) Hc:Lc	89.8; 78.5
Main chain atoms (25M22) Hc:Lc	85.5; 101.9
Side chain atoms (25M22) Hc:Lc	83.4; 101.2
Water molecules	67.1
Ramachandran Plot (%)	Overall
Favored	78.3
Allowed	20.6
Disallowed	1.2

[00585] The clear electron densities of CDR regions in each chain of the 3P10 and 25M22 Fab fragments in the GFRAL/3P10/25M22 Fab complex are illustrated in **FIG. 42** (electron density 2mFo-DFc weighted, 1.0σ contour level). The 3P10 and 25M22 chains were identified clearly in the electron density, with the exception of region 131-137 in the 3P10 heavy chain (Chain-H), where a few terminal residues were not identified in the electron density.

B2: Data Collection and Structure Determination of GFRAL/8D8/5F12 Fab Complex

[00586] The crystals were examined at the synchrotron at APS. Twenty five such crystals were examined for x-ray diffraction. Sixteen crystals were send first time to synchrotron which yielded a diffraction > 5 Å and the second round of optimized crystals were diffracted up 3.5 Å, which is used for structure determination and refinement. The X-ray diffraction data were indexed using DENZO and integrated and scaled with SCALEPACK from the program suite HKL2000 (Otwinowski and Minor, 1997). The X-ray diffraction of the selected crystal was identified as having an orthorhombic Bravais lattice symmetry. The space group was determined to be $P6_522$ based on the systematic absences along (*h*, *0*, *0*) axes. Analysis of the Matthew's coefficient suggests the crystal's asymmetric unit may accommodate one assembly with approximately 246.6 kDa and a corresponding solvent content of 61%. The structure solution was checked with enantiomeric spacegroup $P6_122$, which gave very poor Rfactor and Rfree during the rigid body and restraint refinement.

[00587] X-ray diffraction statistics for the GFRAL/8D8/5F12 complex crystals are shown in Table 43.

Table 43

Data collection statistics	**Crystal I**
Wavelength	0.9787 Å
Space group	$P6_522$
Unit cell (Å, °)	*a* = 133.021 *b* = 133.021 *c* = 564.819 γ =120
Resolution (Å)†	50-3.55 (3.68-3.55)
Number of measurements	524,288
Number of unique reflections	37,081
R_{sym} (%)†	0.13 (1.00)
Completeness (%)†	100 (100)
I/σ †	22.0 (3.4)
Redundancy†	14.1 (14.6)
Molecules in the A.U.	4 Fabs 2 Receptor

†The parenthesis is for the highest resolution shell in Å.

[00588] Molecular replacement of Fabs/Receptor was performed by using the scaled dataset with the previously solved of fab pdb:3IU4 used for 8D8 (89 % homologous) and pdb:4M7K used for 5F12(84% homologous) were used as a starting models within the program PHASER using the data extending from 40-5.0 Å resolution gave two assembly of one receptor and two Fabs. The solution had two receptors and four Fabs complex in the asymmetric unit. The solution was refined used REFMAC and Coot was used for model building.

[00589] The structure solution was checked with enantiomeric spacegroup $P6_122$. The Molrep gave two receptors and four Fabs complex. The Molrep model further submitted to Refmac for refinement end up with very poor R_{factor} and R_{free} during the rigid body and restraint refinement which confirms that the current space group is $P6_522$.

[00590] The atomic coordinates from the x-ray diffraction patterns for the GFRAL/8D8/5F12 Fab Complex is found in Table 51.

[00591] Exemplary refinement statistics of a GFRAL/8D8/5F12 Fab Complex crystal structure are shown in Table 44.

Table 44

Refinement Statistics	
Refinement Range (Å)	49.2-3.55
R_{cryst} (%)	25.1
R_{free} (%)	35.8
Molecules 3P10 Fab::GFRAL::25M22	2, 2, 2
Bond lengths (Å)	0.011
Bond angles (°)	1.63

[00592] The clear electron density of one GFRAL protein with the 8D8 and 5F12 Fab fragments (two Fab chains) in the GFRAL/8D8/5F12 Fab complex is illustrated in **FIG. 43** (electron density 2mFo-DFc weighted, 1.0σ contour level). The refinement density clearly indicates most of the loops in Fabs and receptor molecule. The 5F12 and 8D8 chains were identified clearly in the electron density except for the region between amino acids 139-142 in chain-I (5F12 vH), 132-136 in chain-R (8D8 vH) and 131-136 in chain-U (8D8 vL), as well as a few terminal residues were not identified in the density.

C1: Crystal Structure of GFRAL/3P10/25M22 Fab Complex

[00593] The crystal structure of a 3P10 Fab::GFRAL::25M22 Fab complex was determined.

[00594] 3P10 Fab and 25M22 Fab animo acid sequences are shown below, with VH and VL sequences bolded and CDR regions bolded and underlined.

3P10 Fab Hc:

QIQLVQSGPELKKPGETVKISCKAS<u>GYTFTDYGVI</u>WVKQAPGKALKWMG<u>WINTYT</u>
<u>GEPTYADDLKG</u>RFAFSLETSASSASLQINNLKNEDTATYFCAR<u>RYGPEDIDY</u>WGQ
GTTLTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTS
GVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCD
EVD **(SEQ ID NO:1824)**

3P10 Fab Lc:

DIVLTQSPVSLAVSLGQRATISC<u>RASESVDNYGISFMS</u>WFQQKPGQPPKLLIY<u>AAS</u>
<u>HQGS</u>GVPARFSGSGSGTDFSLNIHPMEEDDSAMYFC<u>LQSKEVPWT</u>FGGGTKLEI
KRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQE
SVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
(SEQ ID NO:1825)

25M22 Fab Hc:

QVQLQQSGPDLVKPGASVKISCKAS<u>GYTFTSYWVN</u>WMKQRPGKGLEWIG<u>RIYPG</u>
<u>DGDTNYNGKFKG</u>KATLTADKSSSTAYMQLSSLTSEDSAVYFCAR<u>AYLLRLRRTG</u>
<u>YYAMDY</u>WGQGTSVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVT
VSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKV
DKKVEPKSCDEVD **(SEQ ID NO:1826)**

25M22 Fab Lc:

DVVLTQTPLSLPVNIGDQASISC<u>KSTKSLLNSDEFTYLD</u>WYLQKPGQSPQLLIF<u>LVS</u>
<u>NRFS</u>GVPDRFSGSGSGTDFTLKISRVEAEDLGVYYC<u>FQSNYLPYT</u>FGGGTKLEIKR
TVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVT
EQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC **(SEQ**
ID NO:1827)

[00595] **FIG. 44** illustrates an aspect of a 3P10 Fab::GFRAL::25M22 Fab complex by a ribbon diagram. The Fab fragments interact with an asymmetric unit of GFRAL in the 3P10 Fab::GFRAL::25M22 Fab complex crystal. The crystal structure also showed that GFRAL epitope residues 290-312 were presented to the 3P10 antibody and GFRAL N-terminal epitope residues 130-157 were presented to the 25M22 antibody heavy chain CDR regions.

[00596] **FIG. 45** illustrates CDR regions of 3P10 and 25M22 Fabs with interacting GFRAL and Fab residues highlighted in boxes.

[00597] **FIGS. 46-48** illustrate aspects of GFRAL interactions with 3P10 and 25M22L Fabs in ribbon diagrams with select amino acid residues shown as stick models. For example, **FIG. 46** illustrates aspects of a GFRAL epitope in the vicinity of the 3P10 heavy chain CDR region. The CDR sequences of 3P10 Hc are shown in **FIG. 45**. As another example, **FIG. 47** illustrates aspects of a GFRAL epitope in the vicinity of the 3P10 light chain CDR region. The CDR sequences of 3P10 Lc are shown in **FIG. 45**. As another example, **FIG. 48** illustrates aspects of a GFRAL epitope in the vicinity of the 25M22 heavy chain CDR region. The CDR sequences of 25M22 Lc are shown in **FIG. 45**.

[00598] An analysis of the GFRAL epitope presented to 25M22 Fab in the 3P10 Fab::GFRAL::25M22 Fab complex crystal structure showed that 25M22's mechanism of action is that of a competitive GDF15 inhibitor and involves blocking GDF15 binding to GFRAL. Exemplary core interaction interface amino acids on the GFRAL protein and on the 25M22 Fab CDRs for the heavy and light chains are shown in **FIG. 49**.

[00599] **FIG. 50A** and **50B** illustrates the core amino acids residues in the GFRAL/25M22 Fab interaction interface. **FIG. 50A** illustrates the structure of GFRAL with the core 25M22 interaction interface amino acids (binding epitope) on GFRAL highlighted in a space-filled surface model. Core interface amino acids on 25M22 CDRs for GFRAL are also highlighted in a space-filled surface model. **FIG. 50B** illustrates the structure of GFRAL in a ribbon diagram with core 25M22 Fab interaction interface amino acids on GFRAL (GFRAL epitope residues) highlighted in a space-filled surface model.

[00600] **FIG. 51** illustrates boundary interaction interface amino acids on GFRAL for GFRAL/25M22 Fab binding. Boundary of interaction interface amino acids on GFRAL (for 25M22 Fab binding) are highlighted as space-filled surface models.

[00601] **FIGS. 52-53** illustrate the overlap of GFRAL epitopes for 25M22 Fab and GDF15 binding on GFRAL. Two side views of a GFRAL ribbon diagram are shown in the left and right panels of **FIG. 52**. **FIG. 53** shows a top view of the overlapping GFRAL epitopes for 25M22 Fab and GDF15 binding. Core interaction interface

amino acids residues on GFRAL for 25M22 Fab and GDF15 binding are highlighted in a space-filled surface model. Light gray suface shading represents GFRAL surface covered by 25M22 Fab, whereas drak gray surface shading (highlighted by black arrows) shows GFRAL surface covered by GDF15.

[00602] GFRAL amino acids at the interface of the GFRAL/25M22 Fab complex are shown in Table 45. To compare the interaction interface amino acids in GFRAL/25M22 Fab and GFRAL/GDF15 complexes, Table 45 further lists the GFRAL amino acids at the interface of the GFRAL/GDF15 complex, which is also shown in Table 38. Table 45 illustrates that all core interaction interface amino acid residues on GFRAL that bind to GDF15 are also core interaction interface amino acids in the GFRAL/25M22 Fab interaction.

[00603] The amino acid sequence of a full-length precursor human GFRAL protein is shown below (*see also* **Example 12, part C**):

GFRAL sequences

```
        10         20         30         40         50
MIVFIFLAMG LSLENEYTSQ TNNCTYLREQ CLRDANGCKH ANRVMEDACN
        60         70         80         90        100
DSDPGDPCRM RNSSYCNLSI QYLVESNFQF KECLCTDDFY CTVNKLLGKK
       110        120        130        140        150
CINKSDNVKE DKFKWNLTTR SHHGFKGMWS CLEVAEACVG DVVCNAQLAS
       160        170        180        190        200
YLKACSANGN PCDLKQCQAA IRFFYQNIPF NIAQMLAFCD CAQSDIPCQQ
       210        220        230        240        250
SKEALHSKTC AVNMVPPPTC LSVIRSCQND ELCRRHYRTF QSKCWQRVTR
       260        270        280        290        300
KCHEDENCIS TLSKQDLTCS GSDDCKAAYI DILGTVLQVQ CTCRTITQSE
       310        320        330        340        350
ESLCKIFQHM LHRKSCFNYP TLSNVKGMAL YTRKHANKIT LTGFHSPFNG
       360        370        380        390
EVIYAAMCMT VTCGILLLVM VKLRTSRISS KARDPSSIQI PGEL
```

SEQ ID NO: **1797**

Table 45

Residues on GFRAL that bind to GDF15	**Residues on GFRAL that bind to 25M22**		
Core interaction interface amino acids	Core interaction interface amino acids		Boundary interaction interface amino acids
LEU132	LEU132		SER130
ALA135	ALA135		CYS131
GLU136	GLU136		LEU132
VAL139	VAL139		GLU133
GLY140	GLY140		VAL134
VAL142	VAL142		ALA135
ASN145	ASN145		GLU136
ALA146	ALA146		ALA137
LEU148	LEU148		CYS138
ALA149	ALA149		VAL139
LEU152	LEU152		GLY140
LYS153	LYS153		ASP141
ILE196	ILE196		VAL142
PRO197	PRO197		VAL143
GLN200	GLN200		CYS144
SER201	SER201		ASN145
ALA204	ALA204		ALA146

Residues on GFRAL that bind to GDF15	**Residues on GFRAL that bind to 25M22**		
Core interaction interface amino acids	Core interaction interface amino acids		Boundary interaction interface amino acids
LEU205	LEU205		GLN147
			LEU148
			ALA149
			SER150
			TYR151
			LEU152
			LYS153
			ALA154
			CYS155
			SER156
			PHE174
			TYR175
			LEU186
			CYS189
			CYS191
			ALA192
			GLN193
			SER194
			ASP195
			ILE196
			PRO197
			CYS198
			GLN199
			GLN200
			SER201
			LYS202
			GLU203
			ALA204
			LEU205
			HIS206
			SER207

*GFRAL amino acid numbering according to SEQ ID NO: 1797

[00604] An analysis of the GFRAL epitope presented to 3P10 Fab in the 3P10 Fab::GFRAL::25M22 Fab complex crystal structure showed that 3P10's mechanism of action is that of a non-competitive GDF15 inhibitor and does not involve blocking GDF15-binding to GFRAL. Exemplary core interaction interface amino acids on the

GFRAL protein and on the 3P10 Fab CDRs for the heavy and light chains are shown in **FIG. 54**.

[00605] **FIGS. 55A-55B** illustrate the interaction interface residues on GFRAL and 3P10 Fab as stick models (**FIG. 55A**) or a space-filled surface models (**FIG. 55B**).

[00606] **FIGS. 56A-56B** illustrates core (**FIG. 56A**) and boundary (**FIG. 56B**) interaction interface amino acids on GFRAL for 3P10 Fab binding (GFRAL structural 3P10 binding epitope) in a space-filled surface model.

[00607] **FIG. 57** illustrates the partial overlap of GFRAL epitopes for 3P10 Fab and RET on GFRAL. Two side views of a GFRAL ribbon diagram are shown in the left and right panels of **FIG. 57**. Interaction interface amino acids residues on GFRAL for 3P10 Fab and RET binding are highlighted in a space-filled surface model.

[00608] **FIG. 58** illustrates the overlap of GFRAL epitopes for 25M22 Fab and 25M22 Fab binding on GFRAL. Top and a bottom views of a GFRAL ribbon diagram are shown on the left (top view) and right (bottom view) panels of **FIG. 58**. Boundary interaction interface residues on GFRAL involved in 25M22 Fab and 25M22 Fab binding are shown as space-filled surface models.

[00609] GFRAL amino acids at the interface of the GFRAL/3P10 Fab complex are shown in Table 46. To compare the interaction interface amino acids in GFRAL/3P10 Fab and GFRAL/RET complexes, Table 446 further lists the GFRAL amino acids at the interface of the GFRAL/RET complex, which is also shown in Table 40A. Table 46 shows core interaction interface amino acid residues on GFRAL that bind to both RET and 3P10 Fab in bold.

Table 46

Residues on GFRAL that bind to RET in RET/GFRAL/GDF15 Model	**Residues on GFRAL that bind to 3P10 in 3P10/GFRAL structure**		
Core interaction interface amino acids	Core interaction interface amino acids		Boundary interaction interface amino acids
Gln246	MET214		LEU164

Residues on GFRAL that bind to RET in RET/GFRAL/GDF15 Model	**Residues on GFRAL that bind to 3P10 in 3P10/GFRAL structure**		
Core interaction interface amino acids	Core interaction interface amino acids		Boundary interaction interface amino acids
Arg247	PRO216		LYS208
Arg250	PRO217		VAL212
Lys251	GLN290		ASN213
Cys252	CYS291		MET214
Asp255	THR292		VAL215
Glu256	CYS293		PRO216
Asn257	ARG294		PRO217
Cys258	THR295		PRO218
Ile259	ILE296		THR219
Ser260	**THR297**		CYS220
Thr261	**GLN298**		LEU221
Leu262	**SER299**		VAL223
Thr297	GLU301		TRP245
Gln298	LYS305		LEU267
Ser299	GLN308		CYS269
	HIS309		GLN288
	HIS312		VAL289
	SER315		GLN290
			CYS291
			THR292
			CYS293
			ARG294
			THR295
			ILE296
			THR297
			GLN298
			SER299

Residues on GFRAL that bind to RET in RET/GFRAL/GDF15 Model	**Residues on GFRAL that bind to 3P10 in 3P10/GFRAL structure**		
Core interaction interface amino acids	Core interaction interface amino acids		Boundary interaction interface amino acids
			GLU300
			GLU301
			SER302
			LEU303
			CYS304
			LYS305
			ILE306
			PHE307
			GLN308
			HIS309
			MET310
			LEU311
			HIS312
			ARG313
			LYS314
			SER315
			CYS316
			PHE317

Core interaction interface amino acid residues on GFRAL that bind to both RET and 3P10 Fab are shown in bold.

C1: Crystal Structure of GFRAL/8D8/5F12 Fab Complex

[00610] The crystal structure of a 8D8 Fab::GFRAL::5F12 Fab complex was determined.

[00611] 8D8 Fab and 5F12 Fab animo acid sequences are shown below, with VH and VL sequences bolded and CDR regions bolded and underlined.

8D8 Fab Hc:

QVQLKESGPGLVAPSQSLSITCTVSGFSLSRYSVHWVRQPPGKGLEWLGMIWGF GSTDYNSALKSRLSITKDNSKSQFFLKMNSLQTDDTAMYYCARIHTTAGSYWGQ GTLVTVSAASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTS GVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCD EVDG **(SEQ ID NO:1828)**

8D8 Fab Lc:

DIVMTQSQKFMSTSIGDRVSVTCKASQNVGTNVAWYQQKPGQSPKALVYSTSYR YSGVPDRFTGSGSGTDFTLTISNVQSEDLAEYFCHQYNSYPLTFGAGTKLELKRT VAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVT EQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC **(SEQ ID NO:1829)**

5F12 Fab Hc:

QVQLKQSGTELVRPGASVKLSCKASGYTFTDYYINWVKQRPGQGLEWIARIYPGN GNTYHNEKFKGKATLTAEKSSSTAYMQLSSLTSEDSAVYFCAREGLYYDYDRYF DYWGQGTALTVSS**ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWN SGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKV EPKSCDEVDG **(SEQ ID NO:1830)**

5F12 Fab Lc:

NIVLTQSPASLAVSLGQRATISCRASESVDTYGNSFMHWYQQKPGQPPKLLIYLA SNLESGVPARFSGSGSRTDFTLTIDPVEADDAATYYCHQNNEDPPAFGGGTKLEI KRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQE SVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC **(SEQ ID NO:1831)**

[00612] **FIG. 59** illustrates an aspect of a 3P10 Fab::GFRAL::25M22 Fab complex by a ribbon diagram. The Fab fragments interact with an asymmetric unit of GFRAL in the 3P10 Fab::GFRAL::25M22 Fab complex crystal. The crystal structure also showed that GFRAL epitope residues 290-312 were presented to the 3P10 antibody and GFRAL N-terminal epitope residues 130-157 were presented to the 25M22 antibody heavy chain CDR regions

[00613] **FIG. 60** illustrates 8D8 Fab and 5F12 Fab binding sites on the GFRAL protein. Residues on the GFRAL protein that are important for Fab bindings are shown as stick models.

[00614] An analysis of the GFRAL epitope presented to 8D8 Fab in the 8D8 Fab::GFRAL::5F12 Fab complex crystal structure showed that 8D8's mechanism of action is that of a competitive GDF15 inhibitor and involves blocking GDF15 binding

to GFRAL. Exemplary core interaction interface amino acids on the GFRAL protein and on the 8D8 Fab CDRs for the heavy and light chains are shown in **FIG. 61**.

[00615] **FIGS. 62A, 62B, 62C and 62D** illustrate the core and boundary amino acid residues in the GFRAL/8D8 Fab interaction interface. **FIG. 62A** illustrates the structure of GFRAL with the core 8D8 interaction interface amino acids (GFRAL epitope residues) on GFRAL highlighted in a space-filled surface model. **FIG. 62B** also illustrates the core interface amino acids on GFRAL covered by 8D8 in a space-filled surface model. **FIG. 62C** illustrates the structure of GFRAL in a ribbon diagram with boundary 8D8 Fab interaction interface amino acids on GFRAL (GFRAL epitope residues) highlighted in a space-filled surface model. **FIG. 62D** also illustrates the boundary interface amino acids on GFRAL covered by 8D8 in a space-filled surface model.

[00616] **FIGS. 63A, 63B, 63C and 63D** illustrate the core and boundary amino acid residues in the GFRAL/5F12 Fab interaction interface. **FIG. 63A** illustrates the structure of GFRAL with the core 5F12 interaction interface amino acids (GFRAL epitope residues) on GFRAL highlighted in a space-filled surface model. **FIG. 63B** also illustrates the core interface amino acids on GFRAL covered by 5F12 in a space-filled surface model. **FIG. 63C** illustrates the structure of GFRAL in a ribbon diagram with boundary 5F12 Fab interaction interface amino acids on GFRAL (GFRAL epitope residues) highlighted in a space-filled surface model. **FIG. 63D** also illustrates the boundary interface amino acids on GFRAL covered by 5F12 in a space-filled surface model.

[00617] GFRAL amino acids at the interface of the GFRAL/8D8 Fab complex are shown in Table 47. To compare the interaction interface amino acids in GFRAL/8D8 Fab and GFRAL/GDF15 complexes, Table 47 further lists the GFRAL amino acids at the interface of the GFRAL/GDF15 complex, which is also shown in Table 38. Table 47 illustrates that core interaction interface amino acid residues on GFRAL that bind to GDF15 overlaps with the core interaction interface amino acids in the GFRAL/8D8 Fab interaction.

[00618] The amino acid sequence of a full-length precursor human GFRAL protein is shown below (*see also* **Example 12, part C**):

GFRAL sequences

```
        10         20         30         40         50
MIVFIFLAMG LSLENEYTSQ TNNCTYLREQ CLRDANGCKH ANRVMEDACN
        60         70         80         90        100
DSDPGDPCRM RNSSYCNLSI QYLVESNFQF KECLCTDDFY CTVNKLLGKK
       110        120        130        140        150
CINKSDNVKE DKFKNNLTTR SHHGFKGMWS CLEVAEACVG DVVCNAQLAS
       160        170        180        190        200
YLKACSANGN PCDLKQCQAA IRFFYQNIPF NIAQMLAFCD CAQSDIPCQQ
       210        220        230        240        250
SKEALHSKTC AVNMVPPPTC LSVIRSCQND ELCRRHYRTF QSKCWQRVTR
       260        270        280        290        300
KCHEDENCIS TLSKQDLTCS GSDDCKAAYI DILGTVLQVQ CTCRTITQSE
       310        320        330        340        350
ESLCKIFQHM LHRKSCFNYP TLSNVKGMAL YTRKHANKIT LTGFHSPFNG
       360        370        380        390
EVIYAAMCMT VTCGILLLVM VKLRTSRISS KARDPSSIQI PGEL
```

SEQ ID NO: **1797**

Table 47

residues on GFRAL that bind to GDF15		**Residues on GFRAL that bind to 8D8 in in GFRAL/8D8 Fab structure**		
Core interaction interface amino acids		Core interaction interface amino acids		Boundary interaction interface amino acids
LEU132		**Glu136**		LEU132
ALA135		Ala137		GLU133
GLU136		**Val139**		VAL134
VAL139		**Gly140**		ALA135
GLY140		**Asp141**		GLU136
VAL142		**Val142**		ALA137
ASN145		Val143		CYS138
ALA146		Cys144		VAL139
LEU148		**Asn145**		GLY140
ALA149		**Ala146**		ASP141
LEU152		Gln147		VAL142
LYS153		Phe173		VAL143
ILE196		Asn177		CYS144
PRO197		Ile178		ASN145
GLN200		Pro179		ALA146
SER201		Asn181		GLN147
ALA204		Ile182		LEU148
LEU205		Met185		ALA149

				SER150
				TYR151
				PHE174
				TYR175
				ALA169
				ALA170
				ILE171
				ARG172
				PHE173
				GLN176
				ASN177
				ILE178
				PRO179
				PHE180
				ASN181
				ILE182
				ALA183
				GLN184
				MET185
				LEU186
				ALA187
				PHE188
				CYS189

Core interaction interface amino acid residues on GFRAL that bind to both GDF15 and 8D8 Fab are shown in bold.

[00619] An analysis of the GFRAL epitope presented to 5F12 Fab in the 5F12 Fab::GFRAL::8D8 Fab complex crystal structure showed that 5F12's mechanism of action is that of a non-competitive GDF15 inhibitor and does not involve blocking GDF15-binding to GFRAL. Exemplary core interaction interface amino acids on the GFRAL protein and on the 5F12 Fab CDRs for the heavy and light chains are shown in **FIG. 64**.

[00620] GFRAL amino acids at the interface of the GFRAL/5F12 Fab complex are shown in Table 48. To compare the interaction interface amino acids in GFRAL/5F12 Fab and GFRAL/RET complexes, Table 48 further lists the GFRAL amino acids at the interface of the GFRAL/RET complex, which is also shown in Table 40A. Table 48 shows core interaction interface amino acid residues on GFRAL that bind to both RET and 5F12 Fab in cells filled with Blue background. Residues on GFRAL which are critical for GFRAL/5F12 interactions: 5F12 binding

epitope on GFRAL reveals a non-competitive inhibitory mechanism of action of blocking GFRAL/RET interactions.

Table 48

residues on GFRAL that bind to RET in RET/GFRAL/GDF15 Model		**residues on GFRAL that bind to 5F12 in 5F12/GFRAL structure**		
Core interaction interface amino acids on GFRAL		Core interaction interface amino acids		Boundary interaction interface amino acids
Gln246		Arg234		CYS233
Arg247		Arg238		ARG234
Arg250		GLN241		ARG235
Lys251		Ser242		HIS236
Cys252		Lys243		TYR237
Asp255		Trp245		ARG238
Glu256		**Gln246**		THR239
Asn257		Thr249		PHE240
Cys258		**Arg250**		GLN241
Ile259		**Lys251**		SER242
Ser260		**Cys252**		LYS243
Thr261		His253		CYS244
Leu262		**Asp255**		TRP245
Thr297		**Asn257**		GLN246
Gln298		**Cys258**		ARG247
Ser299		**Ser260**		VAL248
		Thr261		THR249
		Leu262		ARG250
				LYS251
				CYS252
				HIS253
				GLU254
				ASP255
				GLU256
				ASN257
				CYS258
				ILE259
				SER260
				THR261

				LEU262
				SER263
				LYS264
				ASP266
				LEU267
				THR268
				SER272
				ASP274
				CYS275
				ALA278
				CYS269
				SER270
				SER302
				LEU303
				ILE306
				HIS309
				LEU311
				MET310
				SER315
				CYS316

Core interaction interface amino acid residues on GFRAL that bind to both RET and 5F12 Fab are shown in bold. Gray background colored residues in GFRAL are overlapping residues between 3P10 binding epitope and RET binding epitope on GFRAL.

[00621] The contents of all references described herein are hereby incorporated by reference.

[00622] Other embodiments are within the following claims.

Table 49

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1	N	ASP	A	5	-29.647	-38.53	22.338	1	107.89	A	N
ATOM	2	CA	ASP	A	5	-29.096	-38.791	20.97	1	108.54	A	C
ATOM	3	CB	ASP	A	5	-29.843	-39.971	20.331	1	100.53	A	C
ATOM	4	CG	ASP	A	5	-29.07	-40.64	19.218	1	86.72	A	C
ATOM	5	OD1	ASP	A	5	-27.842	-40.461	19.118	1	79.65	A	O
ATOM	6	OD2	ASP	A	5	-29.702	-41.388	18.449	1	91.44	A	O
ATOM	7	C	ASP	A	5	-29.229	-37.55	20.075	1	107.46	A	C
ATOM	8	O	ASP	A	5	-30.341	-37.026	19.939	1	108.4	A	O
ATOM	9	N	HIS	A	6	-28.127	-37.121	19.436	1	105.39	A	N
ATOM	10	CA	HIS	A	6	-28.13	-35.922	18.544	1	100.79	A	C
ATOM	11	CB	HIS	A	6	-26.77	-35.188	18.564	1	109.43	A	C
ATOM	12	CG	HIS	A	6	-25.631	-35.935	17.932	1	118.36	A	C
ATOM	13	ND1	HIS	A	6	-25.266	-35.76	16.614	1	123.98	A	N
ATOM	14	CE1	HIS	A	6	-24.212	-36.512	16.344	1	124.11	A	C
ATOM	15	NE2	HIS	A	6	-23.865	-37.151	17.448	1	122.91	A	N
ATOM	16	CD2	HIS	A	6	-24.727	-36.798	18.458	1	121.3	A	C
ATOM	17	C	HIS	A	6	-28.657	-36.133	17.092	1	91.62	A	C
ATOM	18	O	HIS	A	6	-28.298	-35.402	16.164	1	93.2	A	O
ATOM	19	N	CYS	A	7	-29.508	-37.146	16.935	1	75.73	A	N
ATOM	20	CA	CYS	A	7	-30.401	-37.322	15.804	1	63.79	A	C
ATOM	21	CB	CYS	A	7	-30.888	-38.78	15.796	1	52.38	A	C
ATOM	22	SG	CYS	A	7	-32.172	-39.202	14.618	1	54.69	A	S
ATOM	23	C	CYS	A	7	-31.587	-36.369	15.975	1	61.67	A	C
ATOM	24	O	CYS	A	7	-32.353	-36.517	16.912	1	65.41	A	O
ATOM	25	N	PRO	A	8	-31.763	-35.403	15.061	1	68.82	A	N
ATOM	26	CA	PRO	A	8	-32.972	-34.563	15.074	1	69.64	A	C
ATOM	27	CB	PRO	A	8	-32.921	-33.847	13.718	1	69.48	A	C
ATOM	28	CG	PRO	A	8	-31.478	-33.831	13.327	1	70.01	A	C
ATOM	29	CD	PRO	A	8	-30.866	-35.064	13.935	1	72.51	A	C
ATOM	30	C	PRO	A	8	-34.292	-35.346	15.187	1	74.75	A	C
ATOM	31	O	PRO	A	8	-35.176	-34.932	15.91	1	78.12	A	O
ATOM	32	N	LEU	A	9	-34.397	-36.49	14.514	1	72.61	A	N
ATOM	33	CA	LEU	A	9	-35.657	-37.222	14.415	1	69.49	A	C
ATOM	34	CB	LEU	A	9	-35.634	-38.147	13.197	1	71.26	A	C
ATOM	35	CG	LEU	A	9	-35.228	-37.563	11.837	1	71.78	A	C
ATOM	36	CD1	LEU	A	9	-35.448	-38.642	10.801	1	73.76	A	C
ATOM	37	CD2	LEU	A	9	-35.975	-36.288	11.443	1	74.5	A	C
ATOM	38	C	LEU	A	9	-36.021	-38.065	15.64	1	71.64	A	C
ATOM	39	O	LEU	A	9	-37.008	-38.819	15.594	1	79.87	A	O
ATOM	40	N	GLY	A	10	-35.255	-37.948	16.722	1	61.99	A	N
ATOM	41	CA	GLY	A	10	-35.484	-38.736	17.919	1	65.08	A	C
ATOM	42	C	GLY	A	10	-34.43	-39.824	18.05	1	71.72	A	C
ATOM	43	O	GLY	A	10	-34.006	-40.383	17.046	1	67.95	A	O
ATOM	44	N	PRO	A	11	-33.986	-40.123	19.287	1	75.85	A	N
ATOM	45	CA	PRO	A	11	-33.041	-41.212	19.551	1	76.1	A	C
ATOM	46	CB	PRO	A	11	-33.286	-41.519	21.033	1	75.37	A	C
ATOM	47	CG	PRO	A	11	-33.644	-40.19	21.618	1	76.52	A	C
ATOM	48	CD	PRO	A	11	-34.217	-39.33	20.512	1	77.29	A	C
ATOM	49	C	PRO	A	11	-33.175	-42.48	18.698	1	74.27	A	C
ATOM	50	O	PRO	A	11	-34.303	-42.961	18.476	1	62.1	A	O
ATOM	51	N	GLY	A	12	-32.012	-42.952	18.198	1	74.34	A	N
ATOM	52	CA	GLY	A	12	-31.853	-44.216	17.445	1	62.04	A	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	53	C	GLY	A	12	-32.325	-44.234	16.004	1	56.96	A	C
ATOM	54	O	GLY	A	12	-32.174	-45.249	15.332	1	74.7	A	O
ATOM	55	N	ARG	A	13	-32.861	-43.123	15.509	1	55.39	A	N
ATOM	56	CA	ARG	A	13	-33.578	-43.082	14.222	1	59.08	A	C
ATOM	57	CB	ARG	A	13	-34.705	-42.046	14.281	1	69.86	A	C
ATOM	58	CG	ARG	A	13	-35.749	-42.317	15.362	1	78.39	A	C
ATOM	59	CD	ARG	A	13	-36.853	-43.206	14.862	1	79.36	A	C
ATOM	60	NE	ARG	A	13	-38.026	-42.449	14.423	1	95.71	A	N
ATOM	61	CZ	ARG	A	13	-39.004	-42.009	15.222	1	103.01	A	C
ATOM	62	NH1	ARG	A	13	-40.025	-41.344	14.686	1	107.76	A	N
ATOM	63	NH2	ARG	A	13	-38.99	-42.228	16.545	1	98.59	A	N
ATOM	64	C	ARG	A	13	-32.711	-42.712	13.051	1	52.1	A	C
ATOM	65	O	ARG	A	13	-33.095	-42.929	11.889	1	55.9	A	O
ATOM	66	N	CYS	A	14	-31.573	-42.098	13.339	1	48.83	A	N
ATOM	67	CA	CYS	A	14	-30.707	-41.597	12.295	1	48.1	A	C
ATOM	68	CB	CYS	A	14	-30.112	-40.231	12.685	1	50.76	A	C
ATOM	69	SG	CYS	A	14	-31.304	-38.85	12.8	1	55.94	A	S
ATOM	70	C	CYS	A	14	-29.594	-42.605	11.955	1	45.31	A	C
ATOM	71	O	CYS	A	14	-29.34	-43.585	12.673	1	42.95	A	O
ATOM	72	N	CYS	A	15	-28.966	-42.34	10.818	1	46.46	A	N
ATOM	73	CA	CYS	A	15	-27.908	-43.165	10.243	1	42.86	A	C
ATOM	74	CB	CYS	A	15	-27.242	-42.39	9.123	1	43.42	A	C
ATOM	75	SG	CYS	A	15	-25.83	-43.198	8.361	1	44.21	A	S
ATOM	76	C	CYS	A	15	-26.855	-43.551	11.279	1	42.46	A	C
ATOM	77	O	CYS	A	15	-26.213	-42.685	11.849	1	39.72	A	O
ATOM	78	N	ARG	A	16	-26.71	-44.849	11.506	1	36.74	A	N
ATOM	79	CA	ARG	A	16	-25.828	-45.376	12.521	1	39.41	A	C
ATOM	80	CB	ARG	A	16	-26.413	-45.146	13.931	1	43.83	A	C
ATOM	81	CG	ARG	A	16	-27.496	-46.106	14.375	1	50.15	A	C
ATOM	82	CD	ARG	A	16	-28.045	-45.724	15.741	1	58.55	A	C
ATOM	83	NE	ARG	A	16	-29.3	-46.406	16.072	1	68.87	A	N
ATOM	84	CZ	ARG	A	16	-29.421	-47.682	16.466	1	77.43	A	C
ATOM	85	NH1	ARG	A	16	-30.623	-48.158	16.75	1	80.99	A	N
ATOM	86	NH2	ARG	A	16	-28.38	-48.509	16.547	1	79.65	A	N
ATOM	87	C	ARG	A	16	-25.569	-46.866	12.296	1	36.24	A	C
ATOM	88	O	ARG	A	16	-26.187	-47.468	11.467	1	37.37	A	O
ATOM	89	N	LEU	A	17	-24.699	-47.466	13.086	1	38.89	A	N
ATOM	90	CA	LEU	A	17	-24.268	-48.86	12.886	1	37.13	A	C
ATOM	91	CB	LEU	A	17	-22.905	-49.073	13.565	1	41.23	A	C
ATOM	92	CG	LEU	A	17	-22.1	-50.275	13.12	1	43.12	A	C
ATOM	93	CD1	LEU	A	17	-21.629	-50.095	11.676	1	38.64	A	C
ATOM	94	CD2	LEU	A	17	-20.902	-50.433	14.054	1	44.92	A	C
ATOM	95	C	LEU	A	17	-25.227	-49.813	13.53	1	41.04	A	C
ATOM	96	O	LEU	A	17	-25.53	-49.65	14.711	1	41.05	A	O
ATOM	97	N	HIS	A	18	-25.674	-50.823	12.775	1	43.98	A	N
ATOM	98	CA	HIS	A	18	-26.506	-51.928	13.269	1	43.71	A	C
ATOM	99	CB	HIS	A	18	-27.856	-51.935	12.514	1	46.48	A	C
ATOM	100	CG	HIS	A	18	-28.736	-50.775	12.849	1	58.05	A	C
ATOM	101	ND1	HIS	A	18	-28.472	-49.489	12.411	1	60.73	A	N
ATOM	102	CE1	HIS	A	18	-29.391	-48.673	12.886	1	59.23	A	C
ATOM	103	NE2	HIS	A	18	-30.252	-49.384	13.593	1	64.69	A	N
ATOM	104	CD2	HIS	A	18	-29.86	-50.698	13.599	1	56.48	A	C
ATOM	105	C	HIS	A	18	-25.802	-53.298	13.027	1	42.3	A	C
ATOM	106	O	HIS	A	18	-25.005	-53.445	12.115	1	36.07	A	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	107	N	THR	A	19	-26.154	-54.295	13.818	1	39.75	A	N
ATOM	108	CA	THR	A	19	-25.625	-55.642	13.686	1	41.06	A	C
ATOM	109	CB	THR	A	19	-25.013	-56.059	15.015	1	41.9	A	C
ATOM	110	OG1	THR	A	19	-24.086	-55.048	15.4	1	43.26	A	O
ATOM	111	CG2	THR	A	19	-24.291	-57.393	14.911	1	40.13	A	C
ATOM	112	C	THR	A	19	-26.743	-56.596	13.279	1	41.71	A	C
ATOM	113	O	THR	A	19	-27.785	-56.584	13.906	1	38.18	A	O
ATOM	114	N	VAL	A	20	-26.536	-57.396	12.227	1	40.53	A	N
ATOM	115	CA	VAL	A	20	-27.484	-58.429	11.817	1	39.22	A	C
ATOM	116	CB	VAL	A	20	-28.044	-58.13	10.41	1	43.74	A	C
ATOM	117	CG1	VAL	A	20	-28.987	-59.232	9.948	1	43.53	A	C
ATOM	118	CG2	VAL	A	20	-28.75	-56.786	10.382	1	46.49	A	C
ATOM	119	C	VAL	A	20	-26.786	-59.777	11.741	1	40.46	A	C
ATOM	120	O	VAL	A	20	-25.85	-59.956	10.93	1	38.14	A	O
ATOM	121	N	ARG	A	21	-27.228	-60.745	12.54	1	39.82	A	N
ATOM	122	CA	ARG	A	21	-26.586	-62.066	12.535	1	43.73	A	C
ATOM	123	CB	ARG	A	21	-26.987	-62.963	13.685	1	45.08	A	C
ATOM	124	CG	ARG	A	21	-26.669	-62.384	15.052	1	58.75	A	C
ATOM	125	CD	ARG	A	21	-27.049	-63.345	16.206	1	66.8	A	C
ATOM	126	NE	ARG	A	21	-25.873	-63.877	16.923	1	74.5	A	N
ATOM	127	CZ	ARG	A	21	-25.32	-63.361	18.032	1	75.89	A	C
ATOM	128	NH1	ARG	A	21	-25.811	-62.277	18.632	1	76.6	A	N
ATOM	129	NH2	ARG	A	21	-24.247	-63.946	18.561	1	80.23	A	N
ATOM	130	C	ARG	A	21	-27.001	-62.704	11.276	1	39.92	A	C
ATOM	131	O	ARG	A	21	-28.143	-62.657	10.956	1	43.31	A	O
ATOM	132	N	ALA	A	22	-26.076	-63.254	10.524	1	39.79	A	N
ATOM	133	CA	ALA	A	22	-26.421	-64.017	9.337	1	38.46	A	C
ATOM	134	CB	ALA	A	22	-26.149	-63.193	8.114	1	39.22	A	C
ATOM	135	C	ALA	A	22	-25.592	-65.311	9.271	1	39.48	A	C
ATOM	136	O	ALA	A	22	-24.409	-65.296	9.527	1	41.3	A	O
ATOM	137	N	SER	A	23	-26.222	-66.403	8.881	1	37.08	A	N
ATOM	138	CA	SER	A	23	-25.546	-67.652	8.678	1	38.93	A	C
ATOM	139	CB	SER	A	23	-26.551	-68.796	8.803	1	38.61	A	C
ATOM	140	OG	SER	A	23	-27.502	-68.72	7.741	1	39.78	A	O
ATOM	141	C	SER	A	23	-25.018	-67.648	7.254	1	40.87	A	C
ATOM	142	O	SER	A	23	-25.426	-66.809	6.41	1	35.36	A	O
ATOM	143	N	LEU	A	24	-24.175	-68.635	6.98	1	36.42	A	N
ATOM	144	CA	LEU	A	24	-23.583	-68.795	5.666	1	42.13	A	C
ATOM	145	CB	LEU	A	24	-22.538	-69.956	5.614	1	44.12	A	C
ATOM	146	CG	LEU	A	24	-21.269	-69.826	6.452	1	43.49	A	C
ATOM	147	CD1	LEU	A	24	-20.374	-71.041	6.264	1	42.41	A	C
ATOM	148	CD2	LEU	A	24	-20.542	-68.532	6.109	1	43.21	A	C
ATOM	149	C	LEU	A	24	-24.665	-69.034	4.628	1	39.9	A	C
ATOM	150	O	LEU	A	24	-24.559	-68.556	3.508	1	38.41	A	O
ATOM	151	N	GLU	A	25	-25.706	-69.751	5.006	1	43.34	A	N
ATOM	152	CA	GLU	A	25	-26.795	-70.044	4.065	1	50.43	A	C
ATOM	153	CB	GLU	A	25	-27.66	-71.293	4.443	1	52.95	A	C
ATOM	154	CG	GLU	A	25	-27.505	-71.876	5.867	1	69.02	A	C
ATOM	155	CD	GLU	A	25	-26.088	-72.383	6.28	1	71.32	A	C
ATOM	156	OE1	GLU	A	25	-25.555	-73.368	5.684	1	76.67	A	O
ATOM	157	OE2	GLU	A	25	-25.522	-71.804	7.251	1	58.26	A	O
ATOM	158	C	GLU	A	25	-27.595	-68.747	3.781	1	42.68	A	C
ATOM	159	O	GLU	A	25	-27.94	-68.492	2.642	1	40.98	A	O
ATOM	160	N	ASP	A	26	-27.79	-67.883	4.772	1	40.77	A	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	161	CA	ASP	A	26	-28.409	-66.564	4.532	1	37.13	A	C
ATOM	162	CB	ASP	A	26	-28.502	-65.741	5.82	1	43.25	A	C
ATOM	163	CG	ASP	A	26	-29.419	-66.366	6.876	1	45.1	A	C
ATOM	164	OD1	ASP	A	26	-30.338	-67.123	6.493	1	46.96	A	O
ATOM	165	OD2	ASP	A	26	-29.221	-66.103	8.091	1	46.84	A	O
ATOM	166	C	ASP	A	26	-27.591	-65.768	3.51	1	44.61	A	C
ATOM	167	O	ASP	A	26	-28.128	-65.041	2.694	1	44.99	A	O
ATOM	168	N	LEU	A	27	-26.271	-65.913	3.549	1	45.46	A	N
ATOM	169	CA	LEU	A	27	-25.417	-65.13	2.683	1	41.01	A	C
ATOM	170	CB	LEU	A	27	-24.07	-64.903	3.363	1	38.39	A	C
ATOM	171	CG	LEU	A	27	-24.124	-64.067	4.623	1	39.65	A	C
ATOM	172	CD1	LEU	A	27	-22.738	-63.929	5.228	1	41.65	A	C
ATOM	173	CD2	LEU	A	27	-24.69	-62.687	4.363	1	40.96	A	C
ATOM	174	C	LEU	A	27	-25.224	-65.789	1.34	1	40.76	A	C
ATOM	175	O	LEU	A	27	-24.78	-65.126	0.43	1	38.17	A	O
ATOM	176	N	GLY	A	28	-25.542	-67.081	1.23	1	39.95	A	N
ATOM	177	CA	GLY	A	28	-25.301	-67.873	0.016	1	36.14	A	C
ATOM	178	C	GLY	A	28	-23.887	-68.377	-0.086	1	35.77	A	C
ATOM	179	O	GLY	A	28	-23.379	-68.63	-1.17	1	36.04	A	O
ATOM	180	N	TRP	A	29	-23.212	-68.489	1.047	1	36.89	A	N
ATOM	181	CA	TRP	A	29	-21.766	-68.788	1.074	1	38.59	A	C
ATOM	182	CB	TRP	A	29	-21.065	-67.84	2.052	1	34.32	A	C
ATOM	183	CG	TRP	A	29	-20.968	-66.45	1.653	1	35.3	A	C
ATOM	184	CD1	TRP	A	29	-21.518	-65.847	0.56	1	34.09	A	C
ATOM	185	NE1	TRP	A	29	-21.241	-64.507	0.58	1	32.16	A	N
ATOM	186	CE2	TRP	A	29	-20.499	-64.214	1.676	1	33.46	A	C
ATOM	187	CD2	TRP	A	29	-20.334	-65.416	2.402	1	35	A	C
ATOM	188	CE3	TRP	A	29	-19.65	-65.388	3.626	1	34.78	A	C
ATOM	189	CZ3	TRP	A	29	-19.138	-64.173	4.08	1	36.79	A	C
ATOM	190	CH2	TRP	A	29	-19.282	-62.979	3.303	1	36.42	A	C
ATOM	191	CZ2	TRP	A	29	-19.973	-62.989	2.105	1	38.78	A	C
ATOM	192	C	TRP	A	29	-21.418	-70.246	1.515	1	42.81	A	C
ATOM	193	O	TRP	A	29	-20.244	-70.622	1.459	1	41.1	A	O
ATOM	194	N	ALA	A	30	-22.419	-71.034	1.93	1	41.02	A	N
ATOM	195	CA	ALA	A	30	-22.202	-72.329	2.636	1	46.07	A	C
ATOM	196	CB	ALA	A	30	-23.524	-72.952	3.074	1	49.03	A	C
ATOM	197	C	ALA	A	30	-21.364	-73.34	1.877	1	41.75	A	C
ATOM	198	O	ALA	A	30	-20.495	-73.957	2.445	1	41.25	A	O
ATOM	199	N	ASP	A	31	-21.544	-73.421	0.578	1	43.65	A	N
ATOM	200	CA	ASP	A	31	-20.684	-74.273	-0.237	1	43.75	A	C
ATOM	201	CB	ASP	A	31	-21.273	-74.376	-1.648	1	51.71	A	C
ATOM	202	CG	ASP	A	31	-22.617	-75.125	-1.683	1	53.98	A	C
ATOM	203	OD1	ASP	A	31	-23.042	-75.654	-0.655	1	57.9	A	O
ATOM	204	OD2	ASP	A	31	-23.236	-75.217	-2.758	1	58.38	A	O
ATOM	205	C	ASP	A	31	-19.238	-73.836	-0.349	1	44.79	A	C
ATOM	206	O	ASP	A	31	-18.398	-74.633	-0.735	1	46.95	A	O
ATOM	207	N	TRP	A	32	-18.932	-72.569	-0.075	1	43.94	A	N
ATOM	208	CA	TRP	A	32	-17.621	-72.011	-0.415	1	41.75	A	C
ATOM	209	CB	TRP	A	32	-17.825	-70.798	-1.339	1	47.2	A	C
ATOM	210	CG	TRP	A	32	-18.905	-71.052	-2.344	1	51.48	A	C
ATOM	211	CD1	TRP	A	32	-20.181	-70.502	-2.398	1	49.12	A	C
ATOM	212	NE1	TRP	A	32	-20.868	-71.014	-3.457	1	47.47	A	N
ATOM	213	CE2	TRP	A	32	-20.059	-71.934	-4.085	1	54.26	A	C
ATOM	214	CD2	TRP	A	32	-18.811	-71.958	-3.407	1	47.6	A	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	215	CE3	TRP	A	32	-17.793	-72.809	-3.852	1	46.91	A	C
ATOM	216	CZ3	TRP	A	32	-18.021	-73.588	-4.949	1	53.12	A	C
ATOM	217	CH2	TRP	A	32	-19.274	-73.557	-5.619	1	58.43	A	C
ATOM	218	CZ2	TRP	A	32	-20.302	-72.72	-5.205	1	55.67	A	C
ATOM	219	C	TRP	A	32	-16.794	-71.573	0.809	1	42.61	A	C
ATOM	220	O	TRP	A	32	-15.616	-71.214	0.651	1	40.43	A	O
ATOM	221	N	VAL	A	33	-17.423	-71.512	1.985	1	38.54	A	N
ATOM	222	CA	VAL	A	33	-16.808	-70.938	3.167	1	41.98	A	C
ATOM	223	CB	VAL	A	33	-17.417	-69.558	3.522	1	38.54	A	C
ATOM	224	CG1	VAL	A	33	-16.89	-69.04	4.862	1	43.37	A	C
ATOM	225	CG2	VAL	A	33	-17.113	-68.583	2.414	1	38.78	A	C
ATOM	226	C	VAL	A	33	-16.989	-71.944	4.294	1	42.01	A	C
ATOM	227	O	VAL	A	33	-18.085	-72.397	4.562	1	41.04	A	O
ATOM	228	N	LEU	A	34	-15.895	-72.274	4.95	1	42.86	A	N
ATOM	229	CA	LEU	A	34	-15.911	-73.198	6.077	1	42.93	A	C
ATOM	230	CB	LEU	A	34	-14.572	-73.959	6.099	1	43.29	A	C
ATOM	231	CG	LEU	A	34	-14.42	-74.961	7.265	1	54.42	A	C
ATOM	232	CD1	LEU	A	34	-15.301	-76.192	7.034	1	53.19	A	C
ATOM	233	CD2	LEU	A	34	-12.954	-75.33	7.518	1	55.56	A	C
ATOM	234	C	LEU	A	34	-16.178	-72.433	7.413	1	40.42	A	C
ATOM	235	O	LEU	A	34	-16.79	-72.928	8.313	1	40.55	A	O
ATOM	236	N	SER	A	35	-15.717	-71.206	7.506	1	37.52	A	N
ATOM	237	CA	SER	A	35	-15.749	-70.47	8.724	1	39.64	A	C
ATOM	238	CB	SER	A	35	-14.534	-70.926	9.567	1	42.83	A	C
ATOM	239	OG	SER	A	35	-14.601	-70.373	10.865	1	44.11	A	O
ATOM	240	C	SER	A	35	-15.632	-68.968	8.441	1	32.13	A	C
ATOM	241	O	SER	A	35	-14.844	-68.604	7.605	1	35.53	A	O
ATOM	242	N	PRO	A	36	-16.332	-68.092	9.151	1	36.3	A	N
ATOM	243	CA	PRO	A	36	-17.211	-68.423	10.271	1	38.14	A	C
ATOM	244	CB	PRO	A	36	-17.351	-67.077	11.001	1	39.49	A	C
ATOM	245	CG	PRO	A	36	-17.254	-66.055	9.941	1	36.45	A	C
ATOM	246	CD	PRO	A	36	-16.395	-66.645	8.826	1	37.44	A	C
ATOM	247	C	PRO	A	36	-18.572	-68.885	9.874	1	38.93	A	C
ATOM	248	O	PRO	A	36	-19.075	-68.468	8.862	1	42.7	A	O
ATOM	249	N	ARG	A	37	-19.219	-69.679	10.711	1	44	A	N
ATOM	250	CA	ARG	A	37	-20.531	-70.215	10.356	1	45.51	A	C
ATOM	251	CB	ARG	A	37	-20.889	-71.414	11.228	1	45.67	A	C
ATOM	252	CG	ARG	A	37	-20.025	-72.651	11.007	1	55.76	A	C
ATOM	253	CD	ARG	A	37	-20.525	-73.774	11.919	1	69.94	A	C
ATOM	254	NE	ARG	A	37	-19.478	-74.724	12.336	1	81.13	A	N
ATOM	255	CZ	ARG	A	37	-19.415	-75.37	13.514	1	84.71	A	C
ATOM	256	NH1	ARG	A	37	-20.321	-75.178	14.478	1	90.98	A	N
ATOM	257	NH2	ARG	A	37	-18.413	-76.218	13.746	1	83.41	A	N
ATOM	258	C	ARG	A	37	-21.634	-69.177	10.456	1	39.03	A	C
ATOM	259	O	ARG	A	37	-22.654	-69.31	9.83	1	43.54	A	O
ATOM	260	N	GLU	A	38	-21.441	-68.194	11.31	1	41.18	A	N
ATOM	261	CA	GLU	A	38	-22.372	-67.098	11.516	1	48.45	A	C
ATOM	262	CB	GLU	A	38	-22.904	-67.113	12.964	1	54.37	A	C
ATOM	263	CG	GLU	A	38	-24.42	-67.26	13.185	1	69.9	A	C
ATOM	264	CD	GLU	A	38	-24.922	-66.513	14.439	1	71.65	A	C
ATOM	265	OE1	GLU	A	38	-26.123	-66.145	14.507	1	69.26	A	O
ATOM	266	OE2	GLU	A	38	-24.102	-66.26	15.356	1	72.37	A	O
ATOM	267	C	GLU	A	38	-21.525	-65.854	11.361	1	41.02	A	C
ATOM	268	O	GLU	A	38	-20.428	-65.807	11.896	1	43.5	A	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	269	N	VAL	A	39	-22.047	-64.84	10.698	1	37.85	A	N
ATOM	270	CA	VAL	A	39	-21.364	-63.565	10.606	1	37.99	A	C
ATOM	271	CB	VAL	A	39	-21.206	-63.09	9.151	1	36.17	A	C
ATOM	272	CG1	VAL	A	39	-20.492	-61.741	9.133	1	37.19	A	C
ATOM	273	CG2	VAL	A	39	-20.386	-64.095	8.369	1	40.75	A	C
ATOM	274	C	VAL	A	39	-22.178	-62.531	11.305	1	36.27	A	C
ATOM	275	O	VAL	A	39	-23.343	-62.441	11.06	1	38.57	A	O
ATOM	276	N	GLN	A	40	-21.547	-61.722	12.132	1	37.54	A	N
ATOM	277	CA	GLN	A	40	-22.208	-60.605	12.778	1	40.96	A	C
ATOM	278	CB	GLN	A	40	-21.657	-60.366	14.166	1	47.52	A	C
ATOM	279	CG	GLN	A	40	-22.697	-60.446	15.259	1	65.12	A	C
ATOM	280	CD	GLN	A	40	-22.643	-61.756	15.981	1	68.79	A	C
ATOM	281	OE1	GLN	A	40	-23.299	-62.703	15.59	1	81.84	A	O
ATOM	282	NE2	GLN	A	40	-21.858	-61.815	17.051	1	75.03	A	N
ATOM	283	C	GLN	A	40	-21.992	-59.42	11.869	1	37.94	A	C
ATOM	284	O	GLN	A	40	-20.99	-58.716	11.959	1	35.73	A	O
ATOM	285	N	VAL	A	41	-22.914	-59.243	10.928	1	34.72	A	N
ATOM	286	CA	VAL	A	41	-22.721	-58.218	9.912	1	35.63	A	C
ATOM	287	CB	VAL	A	41	-23.597	-58.441	8.684	1	34.34	A	C
ATOM	288	CG1	VAL	A	41	-23.267	-57.41	7.617	1	36.96	A	C
ATOM	289	CG2	VAL	A	41	-23.377	-59.838	8.113	1	32.62	A	C
ATOM	290	C	VAL	A	41	-22.985	-56.838	10.494	1	34.63	A	C
ATOM	291	O	VAL	A	41	-24.095	-56.515	10.869	1	37.67	A	O
ATOM	292	N	THR	A	42	-21.974	-56.005	10.559	1	37.79	A	N
ATOM	293	CA	THR	A	42	-22.193	-54.597	10.968	1	34.49	A	C
ATOM	294	CB	THR	A	42	-21.026	-54.051	11.75	1	32.47	A	C
ATOM	295	OG1	THR	A	42	-19.795	-54.381	11.08	1	34.31	A	O
ATOM	296	CG2	THR	A	42	-21.043	-54.664	13.112	1	31.77	A	C
ATOM	297	C	THR	A	42	-22.507	-53.783	9.735	1	33.3	A	C
ATOM	298	O	THR	A	42	-21.801	-53.902	8.748	1	37.94	A	O
ATOM	299	N	MET	A	43	-23.623	-53.043	9.756	1	34.82	A	N
ATOM	300	CA	MET	A	43	-24.056	-52.241	8.614	1	35.4	A	C
ATOM	301	CB	MET	A	43	-25.006	-53.026	7.713	1	38.76	A	C
ATOM	302	CG	MET	A	43	-26.285	-53.481	8.392	1	46.61	A	C
ATOM	303	SD	MET	A	43	-27.435	-54.37	7.308	1	52.38	A	S
ATOM	304	CE	MET	A	43	-26.48	-55.75	6.691	1	44.11	A	C
ATOM	305	C	MET	A	43	-24.656	-50.914	9.025	1	36.95	A	C
ATOM	306	O	MET	A	43	-25.013	-50.707	10.196	1	38.3	A	O
ATOM	307	N	CYS	A	44	-24.737	-50.004	8.057	1	34.89	A	N
ATOM	308	CA	CYS	A	44	-25.214	-48.623	8.334	1	39.21	A	C
ATOM	309	CB	CYS	A	44	-24.336	-47.65	7.546	1	35.48	A	C
ATOM	310	SG	CYS	A	44	-22.622	-47.734	8.14	1	39.94	A	S
ATOM	311	C	CYS	A	44	-26.695	-48.463	7.953	1	34.27	A	C
ATOM	312	O	CYS	A	44	-27.022	-48.657	6.838	1	39.73	A	O
ATOM	313	N	ILE	A	45	-27.569	-48.138	8.883	1	36.41	A	N
ATOM	314	CA	ILE	A	45	-29.031	-48.012	8.613	1	37.02	A	C
ATOM	315	CB	ILE	A	45	-29.831	-49.215	9.153	1	40.52	A	C
ATOM	316	CG1	ILE	A	45	-29.318	-50.557	8.589	1	43.65	A	C
ATOM	317	CD1	ILE	A	45	-29.762	-51.759	9.419	1	45.06	A	C
ATOM	318	CG2	ILE	A	45	-31.302	-49.133	8.768	1	43.05	A	C
ATOM	319	C	ILE	A	45	-29.526	-46.794	9.367	1	38.64	A	C
ATOM	320	O	ILE	A	45	-29.083	-46.541	10.488	1	37.35	A	O
ATOM	321	N	GLY	A	46	-30.435	-46.053	8.742	1	39.36	A	N
ATOM	322	CA	GLY	A	46	-31.108	-44.93	9.368	1	39.55	A	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	323	C	GLY	A	46	-31.153	-43.703	8.512	1	39.12	A	C
ATOM	324	O	GLY	A	46	-30.482	-43.611	7.503	1	41.18	A	O
ATOM	325	N	ALA	A	47	-31.938	-42.728	8.95	1	46.44	A	N
ATOM	326	CA	ALA	A	47	-32.175	-41.514	8.169	1	44.38	A	C
ATOM	327	CB	ALA	A	47	-33.432	-40.816	8.651	1	48.42	A	C
ATOM	328	C	ALA	A	47	-31.026	-40.555	8.247	1	38.66	A	C
ATOM	329	O	ALA	A	47	-30.28	-40.518	9.216	1	39.82	A	O
ATOM	330	N	CYS	A	48	-30.944	-39.764	7.195	1	37.09	A	N
ATOM	331	CA	CYS	A	48	-29.936	-38.785	6.949	1	38.96	A	C
ATOM	332	CB	CYS	A	48	-29.142	-39.169	5.687	1	41.01	A	C
ATOM	333	SG	CYS	A	48	-27.897	-40.466	5.982	1	42.74	A	S
ATOM	334	C	CYS	A	48	-30.603	-37.404	6.778	1	36.79	A	C
ATOM	335	O	CYS	A	48	-30.596	-36.846	5.695	1	36.33	A	O
ATOM	336	N	PRO	A	49	-31.169	-36.851	7.856	1	35.37	A	N
ATOM	337	CA	PRO	A	49	-31.684	-35.459	7.77	1	39.45	A	C
ATOM	338	CB	PRO	A	49	-32.381	-35.257	9.129	1	37.94	A	C
ATOM	339	CG	PRO	A	49	-31.678	-36.199	10.063	1	37.45	A	C
ATOM	340	CD	PRO	A	49	-31.229	-37.38	9.234	1	36.05	A	C
ATOM	341	C	PRO	A	49	-30.565	-34.434	7.575	1	42.3	A	C
ATOM	342	O	PRO	A	49	-29.411	-34.759	7.839	1	45.9	A	O
ATOM	343	N	SER	A	50	-30.916	-33.209	7.159	1	42.24	A	N
ATOM	344	CA	SER	A	50	-29.959	-32.123	6.9	1	46.61	A	C
ATOM	345	CB	SER	A	50	-30.675	-30.775	6.741	1	48.12	A	C
ATOM	346	OG	SER	A	50	-31.835	-30.977	5.98	1	62.75	A	O
ATOM	347	C	SER	A	50	-28.936	-31.917	7.995	1	53.33	A	C
ATOM	348	O	SER	A	50	-29.292	-31.632	9.153	1	54.99	A	O
ATOM	349	N	GLN	A	51	-27.671	-32.031	7.608	1	52.54	A	N
ATOM	350	CA	GLN	A	51	-26.517	-31.74	8.455	1	49.77	A	C
ATOM	351	CB	GLN	A	51	-26.632	-30.362	9.115	1	52.68	A	C
ATOM	352	CG	GLN	A	51	-26.89	-29.266	8.087	1	56.89	A	C
ATOM	353	CD	GLN	A	51	-27.364	-28.036	8.766	1	62.12	A	C
ATOM	354	OE1	GLN	A	51	-28.561	-27.843	8.96	1	86.28	A	O
ATOM	355	NE2	GLN	A	51	-26.444	-27.24	9.216	1	59.61	A	N
ATOM	356	C	GLN	A	51	-26.223	-32.822	9.475	1	47.08	A	C
ATOM	357	O	GLN	A	51	-25.374	-32.638	10.346	1	47.4	A	O
ATOM	358	N	PHE	A	52	-26.89	-33.957	9.367	1	40.38	A	N
ATOM	359	CA	PHE	A	52	-26.507	-35.068	10.2	1	40.29	A	C
ATOM	360	CB	PHE	A	52	-27.701	-35.945	10.485	1	43.08	A	C
ATOM	361	CG	PHE	A	52	-27.436	-36.975	11.516	1	41.37	A	C
ATOM	362	CD1	PHE	A	52	-27.457	-36.633	12.861	1	41.31	A	C
ATOM	363	CE1	PHE	A	52	-27.182	-37.607	13.829	1	43.74	A	C
ATOM	364	CZ	PHE	A	52	-26.872	-38.914	13.435	1	41.63	A	C
ATOM	365	CE2	PHE	A	52	-26.856	-39.257	12.085	1	39.25	A	C
ATOM	366	CD2	PHE	A	52	-27.116	-38.289	11.134	1	41.38	A	C
ATOM	367	C	PHE	A	52	-25.404	-35.847	9.481	1	37.08	A	C
ATOM	368	O	PHE	A	52	-25.621	-36.336	8.345	1	36.06	A	O
ATOM	369	N	ARG	A	53	-24.223	-35.882	10.102	1	34.44	A	N
ATOM	370	CA	ARG	A	53	-23.075	-36.678	9.672	1	35.8	A	C
ATOM	371	CB	ARG	A	53	-23.319	-38.126	10.038	1	42.17	A	C
ATOM	372	CG	ARG	A	53	-23.292	-38.43	11.519	1	45.29	A	C
ATOM	373	CD	ARG	A	53	-23.184	-39.955	11.665	1	51.24	A	C
ATOM	374	NE	ARG	A	53	-23.299	-40.402	13.053	1	58.4	A	N
ATOM	375	CZ	ARG	A	53	-23.311	-41.672	13.462	1	57.44	A	C
ATOM	376	NH1	ARG	A	53	-23.214	-42.657	12.601	1	60.06	A	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	377	NH2	ARG	A	53	-23.418	-41.948	14.75	1	64.66	A	N
ATOM	378	C	ARG	A	53	-22.786	-36.613	8.169	1	39.19	A	C
ATOM	379	O	ARG	A	53	-22.564	-37.643	7.489	1	35.45	A	O
ATOM	380	N	ALA	A	54	-22.824	-35.403	7.618	1	38.41	A	N
ATOM	381	CA	ALA	A	54	-22.53	-35.228	6.217	1	35.12	A	C
ATOM	382	CB	ALA	A	54	-22.646	-33.747	5.831	1	37.96	A	C
ATOM	383	C	ALA	A	54	-21.116	-35.763	5.987	1	39.88	A	C
ATOM	384	O	ALA	A	54	-20.209	-35.404	6.714	1	44.71	A	O
ATOM	385	N	ALA	A	55	-20.931	-36.651	5.012	1	39.44	A	N
ATOM	386	CA	ALA	A	55	-19.632	-37.292	4.805	1	36.66	A	C
ATOM	387	CB	ALA	A	55	-19.747	-38.392	3.783	1	37.03	A	C
ATOM	388	C	ALA	A	55	-18.561	-36.342	4.367	1	37.25	A	C
ATOM	389	O	ALA	A	55	-17.442	-36.553	4.669	1	41.75	A	O
ATOM	390	N	ASN	A	56	-18.909	-35.316	3.614	1	37.93	A	N
ATOM	391	CA	ASN	A	56	-17.955	-34.532	2.884	1	37.51	A	C
ATOM	392	CB	ASN	A	56	-17.235	-35.407	1.814	1	37.5	A	C
ATOM	393	CG	ASN	A	56	-18.18	-36.097	0.82	1	37.2	A	C
ATOM	394	OD1	ASN	A	56	-19.364	-35.74	0.653	1	38.76	A	O
ATOM	395	ND2	ASN	A	56	-17.634	-37.076	0.116	1	32.65	A	N
ATOM	396	C	ASN	A	56	-18.705	-33.375	2.267	1	39.91	A	C
ATOM	397	O	ASN	A	56	-19.894	-33.177	2.568	1	39.53	A	O
ATOM	398	N	MET	A	57	-18.051	-32.624	1.391	1	41.37	A	N
ATOM	399	CA	MET	A	57	-18.684	-31.453	0.794	1	43.15	A	C
ATOM	400	CB	MET	A	57	-17.664	-30.466	0.221	1	50.27	A	C
ATOM	401	CG	MET	A	57	-17.193	-29.531	1.319	1	56.71	A	C
ATOM	402	SD	MET	A	57	-16.075	-28.235	0.815	1	69.21	A	S
ATOM	403	CE	MET	A	57	-16.975	-27.396	-0.49	1	64.21	A	C
ATOM	404	C	MET	A	57	-19.695	-31.808	-0.245	1	41.13	A	C
ATOM	405	O	MET	A	57	-20.689	-31.109	-0.362	1	41.62	A	O
ATOM	406	N	HIS	A	58	-19.476	-32.897	-0.978	1	34.31	A	N
ATOM	407	CA	HIS	A	58	-20.508	-33.392	-1.854	1	33.98	A	C
ATOM	408	CB	HIS	A	58	-20.057	-34.69	-2.501	1	35.61	A	C
ATOM	409	CG	HIS	A	58	-21.001	-35.203	-3.535	1	34.01	A	C
ATOM	410	ND1	HIS	A	58	-21.068	-34.684	-4.802	1	37.93	A	N
ATOM	411	CE1	HIS	A	58	-21.982	-35.338	-5.504	1	33.69	A	C
ATOM	412	NE2	HIS	A	58	-22.502	-36.266	-4.729	1	33.89	A	N
ATOM	413	CD2	HIS	A	58	-21.933	-36.183	-3.483	1	34.79	A	C
ATOM	414	C	HIS	A	58	-21.818	-33.624	-1.086	1	31.95	A	C
ATOM	415	O	HIS	A	58	-22.865	-33.318	-1.556	1	32.21	A	O
ATOM	416	N	ALA	A	59	-21.735	-34.196	0.099	1	35.12	A	N
ATOM	417	CA	ALA	A	59	-22.898	-34.458	0.885	1	35.66	A	C
ATOM	418	CB	ALA	A	59	-22.532	-35.212	2.152	1	36.66	A	C
ATOM	419	C	ALA	A	59	-23.611	-33.129	1.203	1	36.32	A	C
ATOM	420	O	ALA	A	59	-24.859	-33.056	1.12	1	34.81	A	O
ATOM	421	N	GLN	A	60	-22.839	-32.109	1.572	1	33.39	A	N
ATOM	422	CA	GLN	A	60	-23.408	-30.766	1.887	1	37.53	A	C
ATOM	423	CB	GLN	A	60	-22.386	-29.831	2.48	1	37.43	A	C
ATOM	424	CG	GLN	A	60	-21.955	-30.368	3.838	1	46.78	A	C
ATOM	425	CD	GLN	A	60	-20.831	-29.594	4.484	1	51.97	A	C
ATOM	426	OE1	GLN	A	60	-19.91	-29.14	3.816	1	50.51	A	O
ATOM	427	NE2	GLN	A	60	-20.899	-29.461	5.815	1	56.35	A	N
ATOM	428	C	GLN	A	60	-24.098	-30.067	0.739	1	37.04	A	C
ATOM	429	O	GLN	A	60	-25.091	-29.397	0.95	1	36.44	A	O
ATOM	430	N	ILE	A	61	-23.576	-30.249	-0.461	1	35.1	A	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	431	CA	ILE	A	61	-24.193	-29.73	-1.643	1	34.26	A	C
ATOM	432	CB	ILE	A	61	-23.194	-29.843	-2.787	1	35.08	A	C
ATOM	433	CG1	ILE	A	61	-22.096	-28.803	-2.632	1	38.47	A	C
ATOM	434	CD1	ILE	A	61	-20.825	-29.178	-3.387	1	43.35	A	C
ATOM	435	CG2	ILE	A	61	-23.853	-29.666	-4.136	1	37.38	A	C
ATOM	436	C	ILE	A	61	-25.492	-30.482	-1.965	1	35.36	A	C
ATOM	437	O	ILE	A	61	-26.462	-29.893	-2.428	1	35.29	A	O
ATOM	438	N	LYS	A	62	-25.481	-31.804	-1.796	1	39.17	A	N
ATOM	439	CA	LYS	A	62	-26.612	-32.649	-2.153	1	38.21	A	C
ATOM	440	CB	LYS	A	62	-26.232	-34.108	-2	1	48.13	A	C
ATOM	441	CG	LYS	A	62	-27.126	-35.129	-2.692	1	53.06	A	C
ATOM	442	CD	LYS	A	62	-26.361	-36.422	-2.887	1	55.44	A	C
ATOM	443	CE	LYS	A	62	-27.208	-37.53	-3.448	1	58.35	A	C
ATOM	444	NZ	LYS	A	62	-27.571	-38.549	-2.391	1	65.81	A	N
ATOM	445	C	LYS	A	62	-27.796	-32.318	-1.249	1	36.2	A	C
ATOM	446	O	LYS	A	62	-28.911	-32.264	-1.691	1	38.08	A	O
ATOM	447	N	THR	A	63	-27.529	-32.097	0.022	1	33.98	A	N
ATOM	448	CA	THR	A	63	-28.513	-31.592	0.943	1	35.2	A	C
ATOM	449	CB	THR	A	63	-27.937	-31.498	2.349	1	35.65	A	C
ATOM	450	OG1	THR	A	63	-27.875	-32.823	2.864	1	36.24	A	O
ATOM	451	CG2	THR	A	63	-28.807	-30.681	3.312	1	34.62	A	C
ATOM	452	C	THR	A	63	-29.077	-30.256	0.539	1	38.25	A	C
ATOM	453	O	THR	A	63	-30.29	-30.088	0.558	1	38.9	A	O
ATOM	454	N	SER	A	64	-28.226	-29.305	0.182	1	38.7	A	N
ATOM	455	CA	SER	A	64	-28.742	-28.008	-0.252	1	39.6	A	C
ATOM	456	CB	SER	A	64	-27.625	-27.051	-0.609	1	38.63	A	C
ATOM	457	OG	SER	A	64	-26.894	-26.695	0.558	1	37.5	A	O
ATOM	458	C	SER	A	64	-29.667	-28.175	-1.436	1	38.99	A	C
ATOM	459	O	SER	A	64	-30.772	-27.621	-1.447	1	37.82	A	O
ATOM	460	N	LEU	A	65	-29.202	-28.931	-2.425	1	39.4	A	N
ATOM	461	CA	LEU	A	65	-29.982	-29.149	-3.648	1	38.08	A	C
ATOM	462	CB	LEU	A	65	-29.134	-29.691	-4.775	1	32.49	A	C
ATOM	463	CG	LEU	A	65	-28.031	-28.734	-5.222	1	39.3	A	C
ATOM	464	CD1	LEU	A	65	-27.191	-29.373	-6.326	1	37.33	A	C
ATOM	465	CD2	LEU	A	65	-28.496	-27.313	-5.631	1	39.44	A	C
ATOM	466	C	LEU	A	65	-31.213	-30.025	-3.484	1	39.79	A	C
ATOM	467	O	LEU	A	65	-32.151	-29.854	-4.21	1	40.29	A	O
ATOM	468	N	HIS	A	66	-31.165	-30.987	-2.573	1	40.28	A	N
ATOM	469	CA	HIS	A	66	-32.305	-31.756	-2.236	1	41.11	A	C
ATOM	470	CB	HIS	A	66	-31.892	-32.932	-1.368	1	38.52	A	C
ATOM	471	CG	HIS	A	66	-33.03	-33.595	-0.691	1	36.78	A	C
ATOM	472	ND1	HIS	A	66	-33.983	-34.332	-1.371	1	35.49	A	N
ATOM	473	CE1	HIS	A	66	-34.854	-34.808	-0.5	1	35.19	A	C
ATOM	474	NE2	HIS	A	66	-34.495	-34.407	0.717	1	39	A	N
ATOM	475	CD2	HIS	A	66	-33.369	-33.64	0.621	1	38.73	A	C
ATOM	476	C	HIS	A	66	-33.372	-30.871	-1.553	1	40.57	A	C
ATOM	477	O	HIS	A	66	-34.535	-30.962	-1.913	1	38.81	A	O
ATOM	478	N	ARG	A	67	-32.988	-29.995	-0.631	1	37.94	A	N
ATOM	479	CA	ARG	A	67	-33.98	-29.11	0.013	1	39.23	A	C
ATOM	480	CB	ARG	A	67	-33.488	-28.412	1.292	1	40.88	A	C
ATOM	481	CG	ARG	A	67	-32.936	-29.376	2.349	1	44.02	A	C
ATOM	482	CD	ARG	A	67	-32.318	-28.645	3.556	1	44.22	A	C
ATOM	483	NE	ARG	A	67	-33.39	-27.899	4.185	1	47.25	A	N
ATOM	484	CZ	ARG	A	67	-34.349	-28.42	4.963	1	48.97	A	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	485	NH1	ARG	A	67	-35.311	-27.638	5.409	1	51.18	A	N
ATOM	486	NH2	ARG	A	67	-34.363	-29.703	5.307	1	51.87	A	N
ATOM	487	C	ARG	A	67	-34.55	-28.112	-0.969	1	42.98	A	C
ATOM	488	O	ARG	A	67	-35.708	-27.758	-0.894	1	46.54	A	O
ATOM	489	N	LEU	A	68	-33.775	-27.732	-1.951	1	44.17	A	N
ATOM	490	CA	LEU	A	68	-34.229	-26.797	-2.94	1	40.05	A	C
ATOM	491	CB	LEU	A	68	-32.992	-26.111	-3.507	1	47.84	A	C
ATOM	492	CG	LEU	A	68	-33.154	-24.932	-4.439	1	48.82	A	C
ATOM	493	CD1	LEU	A	68	-33.711	-23.771	-3.65	1	50.19	A	C
ATOM	494	CD2	LEU	A	68	-31.812	-24.59	-5.068	1	52.69	A	C
ATOM	495	C	LEU	A	68	-35.028	-27.448	-4.049	1	43.1	A	C
ATOM	496	O	LEU	A	68	-35.855	-26.795	-4.67	1	45.11	A	O
ATOM	497	N	LYS	A	69	-34.772	-28.719	-4.333	1	40.81	A	N
ATOM	498	CA	LYS	A	69	-35.273	-29.374	-5.545	1	41.64	A	C
ATOM	499	CB	LYS	A	69	-34.215	-29.239	-6.628	1	50.28	A	C
ATOM	500	CG	LYS	A	69	-34.568	-28.277	-7.717	1	61.5	A	C
ATOM	501	CD	LYS	A	69	-33.354	-27.88	-8.542	1	67.94	A	C
ATOM	502	CE	LYS	A	69	-32.875	-26.499	-8.138	1	79.13	A	C
ATOM	503	NZ	LYS	A	69	-32.569	-25.7	-9.353	1	77.8	A	N
ATOM	504	C	LYS	A	69	-35.575	-30.845	-5.256	1	39.68	A	C
ATOM	505	O	LYS	A	69	-34.951	-31.746	-5.824	1	40.69	A	O
ATOM	506	N	PRO	A	70	-36.525	-31.097	-4.343	1	39.23	A	N
ATOM	507	CA	PRO	A	70	-36.724	-32.425	-3.747	1	41.06	A	C
ATOM	508	CB	PRO	A	70	-37.749	-32.18	-2.655	1	40.27	A	C
ATOM	509	CG	PRO	A	70	-38.426	-30.937	-3.064	1	40.89	A	C
ATOM	510	CD	PRO	A	70	-37.432	-30.103	-3.783	1	40.01	A	C
ATOM	511	C	PRO	A	70	-37.175	-33.527	-4.695	1	40.12	A	C
ATOM	512	O	PRO	A	70	-36.947	-34.684	-4.402	1	40.59	A	O
ATOM	513	N	ASP	A	71	-37.792	-33.179	-5.812	1	43.12	A	N
ATOM	514	CA	ASP	A	71	-38.161	-34.182	-6.814	1	48.15	A	C
ATOM	515	CB	ASP	A	71	-39.373	-33.695	-7.628	1	45.93	A	C
ATOM	516	CG	ASP	A	71	-40.614	-33.537	-6.772	1	47.79	A	C
ATOM	517	OD1	ASP	A	71	-40.649	-34.141	-5.7	1	45.88	A	O
ATOM	518	OD2	ASP	A	71	-41.525	-32.762	-7.134	1	48.23	A	O
ATOM	519	C	ASP	A	71	-37.029	-34.56	-7.773	1	49.46	A	C
ATOM	520	O	ASP	A	71	-37.096	-35.595	-8.429	1	50.83	A	O
ATOM	521	N	THR	A	72	-36.03	-33.709	-7.895	1	48.85	A	N
ATOM	522	CA	THR	A	72	-34.875	-33.984	-8.754	1	48.71	A	C
ATOM	523	CB	THR	A	72	-34.318	-32.69	-9.347	1	49.41	A	C
ATOM	524	OG1	THR	A	72	-35.374	-31.844	-9.8	1	57	A	O
ATOM	525	CG2	THR	A	72	-33.364	-32.995	-10.489	1	57.6	A	C
ATOM	526	C	THR	A	72	-33.722	-34.606	-7.939	1	47.52	A	C
ATOM	527	O	THR	A	72	-33.076	-35.488	-8.417	1	45.82	A	O
ATOM	528	N	VAL	A	73	-33.445	-34.081	-6.738	1	44.05	A	N
ATOM	529	CA	VAL	A	73	-32.256	-34.445	-5.994	1	45.16	A	C
ATOM	530	CB	VAL	A	73	-31.427	-33.205	-5.632	1	45.49	A	C
ATOM	531	CG1	VAL	A	73	-30.18	-33.613	-4.884	1	50.8	A	C
ATOM	532	CG2	VAL	A	73	-31.041	-32.473	-6.89	1	45.69	A	C
ATOM	533	C	VAL	A	73	-32.681	-35.201	-4.744	1	40.58	A	C
ATOM	534	O	VAL	A	73	-33.359	-34.643	-3.899	1	37.48	A	O
ATOM	535	N	PRO	A	74	-32.318	-36.485	-4.641	1	41.21	A	N
ATOM	536	CA	PRO	A	74	-32.77	-37.241	-3.483	1	43.58	A	C
ATOM	537	CB	PRO	A	74	-32.476	-38.68	-3.889	1	43.61	A	C
ATOM	538	CG	PRO	A	74	-31.285	-38.561	-4.748	1	45.06	A	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	539	CD	PRO	A	74	-31.459	-37.296	-5.525	1	44.93	A	C
ATOM	540	C	PRO	A	74	-32.004	-36.859	-2.225	1	46.17	A	C
ATOM	541	O	PRO	A	74	-30.96	-36.217	-2.299	1	42.53	A	O
ATOM	542	N	ALA	A	75	-32.543	-37.255	-1.079	1	53.66	A	N
ATOM	543	CA	ALA	A	75	-31.86	-37.107	0.21	1	54.13	A	C
ATOM	544	CB	ALA	A	75	-32.794	-37.547	1.306	1	56.52	A	C
ATOM	545	C	ALA	A	75	-30.567	-37.96	0.308	1	54.78	A	C
ATOM	546	O	ALA	A	75	-30.447	-38.994	-0.359	1	42.71	A	O
ATOM	547	N	PRO	A	76	-29.625	-37.558	1.185	1	55.5	A	N
ATOM	548	CA	PRO	A	76	-28.405	-38.361	1.337	1	52.04	A	C
ATOM	549	CB	PRO	A	76	-27.612	-37.549	2.369	1	58.18	A	C
ATOM	550	CG	PRO	A	76	-27.977	-36.117	2.055	1	53.52	A	C
ATOM	551	CD	PRO	A	76	-29.464	-36.238	1.846	1	57.77	A	C
ATOM	552	C	PRO	A	76	-28.67	-39.784	1.781	1	43.89	A	C
ATOM	553	O	PRO	A	76	-29.721	-40.039	2.341	1	46.97	A	O
ATOM	554	N	CYS	A	77	-27.782	-40.714	1.462	1	42.22	A	N
ATOM	555	CA	CYS	A	77	-27.911	-42.091	1.964	1	43.58	A	C
ATOM	556	CB	CYS	A	77	-27.806	-43.152	0.853	1	48.49	A	C
ATOM	557	SG	CYS	A	77	-27.618	-42.727	-0.912	1	77.89	A	S
ATOM	558	C	CYS	A	77	-26.92	-42.465	3.103	1	36.1	A	C
ATOM	559	O	CYS	A	77	-25.782	-42.028	3.125	1	36.88	A	O
ATOM	560	N	CYS	A	78	-27.36	-43.337	4.002	1	34.84	A	N
ATOM	561	CA	CYS	A	78	-26.552	-43.854	5.123	1	35.57	A	C
ATOM	562	CB	CYS	A	78	-27.464	-44.44	6.23	1	33.58	A	C
ATOM	563	SG	CYS	A	78	-26.603	-44.959	7.735	1	40.5	A	S
ATOM	564	C	CYS	A	78	-25.622	-44.961	4.586	1	36.81	A	C
ATOM	565	O	CYS	A	78	-26.116	-45.997	4.183	1	37.76	A	O
ATOM	566	N	VAL	A	79	-24.3	-44.707	4.567	1	37.99	A	N
ATOM	567	CA	VAL	A	79	-23.276	-45.643	4.063	1	39.76	A	C
ATOM	568	CB	VAL	A	79	-22.747	-45.25	2.67	1	43	A	C
ATOM	569	CG1	VAL	A	79	-23.909	-45.236	1.693	1	45.91	A	C
ATOM	570	CG2	VAL	A	79	-22.047	-43.893	2.688	1	46.23	A	C
ATOM	571	C	VAL	A	79	-22.095	-45.759	5.018	1	35.34	A	C
ATOM	572	O	VAL	A	79	-21.941	-44.929	5.902	1	36.25	A	O
ATOM	573	N	PRO	A	80	-21.273	-46.808	4.852	1	35.99	A	N
ATOM	574	CA	PRO	A	80	-20.101	-46.948	5.709	1	37.36	A	C
ATOM	575	CB	PRO	A	80	-19.546	-48.356	5.331	1	34.42	A	C
ATOM	576	CG	PRO	A	80	-20.733	-49.092	4.855	1	34.43	A	C
ATOM	577	CD	PRO	A	80	-21.459	-48.048	4.047	1	37.91	A	C
ATOM	578	C	PRO	A	80	-19.084	-45.888	5.402	1	35.53	A	C
ATOM	579	O	PRO	A	80	-18.785	-45.661	4.253	1	34.05	A	O
ATOM	580	N	ALA	A	81	-18.575	-45.256	6.445	1	39.9	A	N
ATOM	581	CA	ALA	A	81	-17.469	-44.302	6.339	1	38.67	A	C
ATOM	582	CB	ALA	A	81	-17.547	-43.327	7.507	1	39.8	A	C
ATOM	583	C	ALA	A	81	-16.132	-45.013	6.37	1	35.89	A	C
ATOM	584	O	ALA	A	81	-15.161	-44.485	5.922	1	36.72	A	O
ATOM	585	N	SER	A	82	-16.087	-46.19	6.971	1	37.5	A	N
ATOM	586	CA	SER	A	82	-14.881	-47.004	7.04	1	36.94	A	C
ATOM	587	CB	SER	A	82	-13.964	-46.46	8.146	1	35.17	A	C
ATOM	588	OG	SER	A	82	-14.627	-46.61	9.397	1	36.11	A	O
ATOM	589	C	SER	A	82	-15.316	-48.443	7.374	1	33.43	A	C
ATOM	590	O	SER	A	82	-16.449	-48.656	7.747	1	34.74	A	O
ATOM	591	N	TYR	A	83	-14.387	-49.388	7.315	1	33.39	A	N
ATOM	592	CA	TYR	A	83	-14.643	-50.823	7.566	1	34.64	A	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	593	CB	TYR	A	83	-14.474	-51.58	6.238	1	36.17	A	C
ATOM	594	CG	TYR	A	83	-15.488	-51.216	5.175	1	33.18	A	C
ATOM	595	CD1	TYR	A	83	-15.272	-50.121	4.32	1	30.47	A	C
ATOM	596	CE1	TYR	A	83	-16.191	-49.766	3.336	1	29.01	A	C
ATOM	597	CZ	TYR	A	83	-17.382	-50.505	3.24	1	30.48	A	C
ATOM	598	OH	TYR	A	83	-18.303	-50.194	2.304	1	31.23	A	O
ATOM	599	CE2	TYR	A	83	-17.621	-51.593	4.081	1	32.56	A	C
ATOM	600	CD2	TYR	A	83	-16.673	-51.949	5.04	1	32.34	A	C
ATOM	601	C	TYR	A	83	-13.732	-51.489	8.6	1	33.76	A	C
ATOM	602	O	TYR	A	83	-12.627	-51.052	8.837	1	38.91	A	O
ATOM	603	N	ASN	A	84	-14.191	-52.569	9.204	1	37.63	A	N
ATOM	604	CA	ASN	A	84	-13.311	-53.443	10.02	1	37.16	A	C
ATOM	605	CB	ASN	A	84	-14.054	-53.941	11.257	1	37.76	A	C
ATOM	606	CG	ASN	A	84	-14.164	-52.887	12.323	1	39.1	A	C
ATOM	607	OD1	ASN	A	84	-13.195	-52.226	12.631	1	43.1	A	O
ATOM	608	ND2	ASN	A	84	-15.345	-52.722	12.884	1	43	A	N
ATOM	609	C	ASN	A	84	-12.941	-54.646	9.2	1	35.3	A	C
ATOM	610	O	ASN	A	84	-13.823	-55.322	8.674	1	40.42	A	O
ATOM	611	N	PRO	A	85	-11.662	-54.955	9.084	1	34.85	A	N
ATOM	612	CA	PRO	A	85	-11.325	-56.188	8.354	1	36.3	A	C
ATOM	613	CB	PRO	A	85	-9.79	-56.228	8.378	1	39.95	A	C
ATOM	614	CG	PRO	A	85	-9.347	-55.204	9.372	1	41.33	A	C
ATOM	615	CD	PRO	A	85	-10.481	-54.223	9.568	1	40.25	A	C
ATOM	616	C	PRO	A	85	-11.834	-57.488	8.988	1	37.32	A	C
ATOM	617	O	PRO	A	85	-11.908	-57.613	10.22	1	40.5	A	O
ATOM	618	N	MET	A	86	-12.075	-58.479	8.15	1	31.09	A	N
ATOM	619	CA	MET	A	86	-12.52	-59.771	8.622	1	33.25	A	C
ATOM	620	CB	MET	A	86	-14.038	-59.903	8.394	1	35.78	A	C
ATOM	621	CG	MET	A	86	-14.678	-61.094	9.082	1	44.89	A	C
ATOM	622	SD	MET	A	86	-16.413	-61.283	8.594	1	45.5	A	S
ATOM	623	CE	MET	A	86	-16.65	-63.013	8.871	1	51.89	A	C
ATOM	624	C	MET	A	86	-11.845	-60.885	7.859	1	34.02	A	C
ATOM	625	O	MET	A	86	-11.617	-60.777	6.647	1	34.69	A	O
ATOM	626	N	VAL	A	87	-11.65	-62.001	8.539	1	32.65	A	N
ATOM	627	CA	VAL	A	87	-11.083	-63.185	7.933	1	33.25	A	C
ATOM	628	CB	VAL	A	87	-10.057	-63.863	8.875	1	35.01	A	C
ATOM	629	CG1	VAL	A	87	-9.347	-65.021	8.185	1	35.09	A	C
ATOM	630	CG2	VAL	A	87	-9.054	-62.861	9.401	1	37.43	A	C
ATOM	631	C	VAL	A	87	-12.178	-64.202	7.647	1	34.02	A	C
ATOM	632	O	VAL	A	87	-13.132	-64.357	8.431	1	32.57	A	O
ATOM	633	N	LEU	A	88	-12.021	-64.903	6.521	1	31.52	A	N
ATOM	634	CA	LEU	A	88	-12.879	-65.992	6.115	1	35.17	A	C
ATOM	635	CB	LEU	A	88	-13.573	-65.644	4.764	1	37.86	A	C
ATOM	636	CG	LEU	A	88	-14.977	-65.088	4.707	1	42.6	A	C
ATOM	637	CD1	LEU	A	88	-15.223	-64.077	5.807	1	52.34	A	C
ATOM	638	CD2	LEU	A	88	-15.29	-64.472	3.361	1	44.16	A	C
ATOM	639	C	LEU	A	88	-11.963	-67.182	5.882	1	35.12	A	C
ATOM	640	O	LEU	A	88	-10.914	-66.995	5.325	1	37.27	A	O
ATOM	641	N	ILE	A	89	-12.375	-68.396	6.234	1	37.58	A	N
ATOM	642	CA	ILE	A	89	-11.708	-69.594	5.696	1	35.03	A	C
ATOM	643	CB	ILE	A	89	-11.548	-70.684	6.755	1	35.1	A	C
ATOM	644	CG1	ILE	A	89	-10.824	-70.115	7.995	1	36.24	A	C
ATOM	645	CD1	ILE	A	89	-10.73	-71.104	9.15	1	39.26	A	C
ATOM	646	CG2	ILE	A	89	-10.78	-71.885	6.191	1	38.2	A	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	647	C	ILE	A	89	-12.501	-70.11	4.487	1	37.35	A	C
ATOM	648	O	ILE	A	89	-13.569	-70.645	4.649	1	35.18	A	O
ATOM	649	N	GLN	A	90	-11.927	-69.958	3.293	1	40.15	A	N
ATOM	650	CA	GLN	A	90	-12.546	-70.392	2.029	1	45.36	A	C
ATOM	651	CB	GLN	A	90	-12.12	-69.503	0.865	1	44.4	A	C
ATOM	652	CG	GLN	A	90	-12.434	-68.052	1.115	1	50.18	A	C
ATOM	653	CD	GLN	A	90	-11.86	-67.108	0.074	1	56.38	A	C
ATOM	654	OE1	GLN	A	90	-11.639	-65.932	0.368	1	61.3	A	O
ATOM	655	NE2	GLN	A	90	-11.654	-67.592	-1.141	1	52.84	A	N
ATOM	656	C	GLN	A	90	-12.107	-71.799	1.67	1	47.78	A	C
ATOM	657	O	GLN	A	90	-10.916	-72.126	1.767	1	46.24	A	O
ATOM	658	N	LYS	A	91	-13.072	-72.6	1.241	1	44.79	A	N
ATOM	659	CA	LYS	A	91	-12.834	-73.921	0.62	1	48.76	A	C
ATOM	660	CB	LYS	A	91	-14.143	-74.683	0.567	1	45.67	A	C
ATOM	661	CG	LYS	A	91	-14.845	-74.835	1.91	1	48.89	A	C
ATOM	662	CD	LYS	A	91	-16.159	-75.583	1.732	1	52.05	A	C
ATOM	663	CE	LYS	A	91	-16.971	-75.654	3.007	1	54.44	A	C
ATOM	664	NZ	LYS	A	91	-18.386	-76.047	2.686	1	56.7	A	N
ATOM	665	C	LYS	A	91	-12.346	-73.755	-0.808	1	51.56	A	C
ATOM	666	O	LYS	A	91	-13.037	-73.144	-1.608	1	60.01	A	O
ATOM	667	N	THR	A	92	-11.156	-74.271	-1.124	1	61.45	A	N
ATOM	668	CA	THR	A	92	-10.583	-74.235	-2.483	1	55.7	A	C
ATOM	669	CB	THR	A	92	-9.159	-73.682	-2.471	1	57.04	A	C
ATOM	670	OG1	THR	A	92	-8.351	-74.533	-1.657	1	61.11	A	O
ATOM	671	CG2	THR	A	92	-9.112	-72.265	-1.92	1	60.2	A	C
ATOM	672	C	THR	A	92	-10.5	-75.639	-3.082	1	60.57	A	C
ATOM	673	O	THR	A	92	-10.833	-76.612	-2.424	1	58.72	A	O
ATOM	674	N	ASP	A	93	-10.057	-75.716	-4.34	1	73.89	A	N
ATOM	675	CA	ASP	A	93	-9.779	-76.992	-5.048	1	82.2	A	C
ATOM	676	CB	ASP	A	93	-9.252	-76.741	-6.486	1	85.53	A	C
ATOM	677	CG	ASP	A	93	-10.326	-76.19	-7.435	1	96.89	A	C
ATOM	678	OD1	ASP	A	93	-11.515	-76.589	-7.333	1	97.88	A	O
ATOM	679	OD2	ASP	A	93	-9.975	-75.354	-8.295	1	94.75	A	O
ATOM	680	C	ASP	A	93	-8.759	-77.854	-4.312	1	77.33	A	C
ATOM	681	O	ASP	A	93	-8.96	-79.057	-4.159	1	68.5	A	O
ATOM	682	N	THR	A	94	-7.677	-77.216	-3.869	1	70.86	A	N
ATOM	683	CA	THR	A	94	-6.571	-77.881	-3.175	1	74.25	A	C
ATOM	684	CB	THR	A	94	-5.271	-77.099	-3.422	1	82.12	A	C
ATOM	685	OG1	THR	A	94	-5.446	-75.743	-2.995	1	82.46	A	O
ATOM	686	CG2	THR	A	94	-4.906	-77.112	-4.91	1	84.53	A	C
ATOM	687	C	THR	A	94	-6.719	-78.058	-1.646	1	69.71	A	C
ATOM	688	O	THR	A	94	-5.967	-78.817	-1.04	1	72.97	A	O
ATOM	689	N	GLY	A	95	-7.661	-77.352	-1.025	1	62.53	A	N
ATOM	690	CA	GLY	A	95	-7.866	-77.445	0.413	1	61.21	A	C
ATOM	691	C	GLY	A	95	-8.607	-76.256	1.004	1	56.35	A	C
ATOM	692	O	GLY	A	95	-9.831	-76.193	0.949	1	58.04	A	O
ATOM	693	N	VAL	A	96	-7.86	-75.291	1.523	1	51.53	A	N
ATOM	694	CA	VAL	A	96	-8.442	-74.184	2.251	1	48.99	A	C
ATOM	695	CB	VAL	A	96	-8.608	-74.656	3.712	1	52.06	A	C
ATOM	696	CG1	VAL	A	96	-7.85	-73.814	4.717	1	56.47	A	C
ATOM	697	CG2	VAL	A	96	-10.08	-74.834	4.046	1	50.44	A	C
ATOM	698	C	VAL	A	96	-7.557	-72.976	2.047	1	45.61	A	C
ATOM	699	O	VAL	A	96	-6.402	-73.137	1.752	1	50.46	A	O
ATOM	700	N	SER	A	97	-8.103	-71.783	2.23	1	45.6	A	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	701	CA	SER	A	97	-7.351	-70.536	2.21	1	41.88	A	C
ATOM	702	CB	SER	A	97	-7.371	-69.967	0.817	1	43.35	A	C
ATOM	703	OG	SER	A	97	-6.792	-68.678	0.749	1	49.24	A	O
ATOM	704	C	SER	A	97	-7.972	-69.501	3.158	1	49.62	A	C
ATOM	705	O	SER	A	97	-9.213	-69.299	3.151	1	50.27	A	O
ATOM	706	N	LEU	A	98	-7.115	-68.838	3.947	1	44.05	A	N
ATOM	707	CA	LEU	A	98	-7.541	-67.82	4.91	1	47.74	A	C
ATOM	708	CB	LEU	A	98	-6.685	-67.827	6.188	1	46.42	A	C
ATOM	709	CG	LEU	A	98	-7.099	-68.798	7.268	1	44.95	A	C
ATOM	710	CD1	LEU	A	98	-7.051	-70.203	6.74	1	47.84	A	C
ATOM	711	CD2	LEU	A	98	-6.177	-68.658	8.453	1	50.85	A	C
ATOM	712	C	LEU	A	98	-7.369	-66.474	4.271	1	44.62	A	C
ATOM	713	O	LEU	A	98	-6.269	-66.099	3.968	1	43.48	A	O
ATOM	714	N	GLN	A	99	-8.445	-65.751	4.063	1	42.45	A	N
ATOM	715	CA	GLN	A	99	-8.349	-64.472	3.384	1	43.16	A	C
ATOM	716	CB	GLN	A	99	-9.135	-64.513	2.072	1	48.52	A	C
ATOM	717	CG	GLN	A	99	-8.516	-65.359	0.956	1	56.02	A	C
ATOM	718	CD	GLN	A	99	-7.094	-64.952	0.631	1	59.86	A	C
ATOM	719	OE1	GLN	A	99	-6.253	-65.809	0.371	1	62.92	A	O
ATOM	720	NE2	GLN	A	99	-6.8	-63.644	0.715	1	64.5	A	N
ATOM	721	C	GLN	A	99	-8.934	-63.394	4.24	1	35.27	A	C
ATOM	722	O	GLN	A	99	-9.959	-63.578	4.87	1	35.18	A	O
ATOM	723	N	THR	A	100	-8.272	-62.264	4.23	1	35.32	A	N
ATOM	724	CA	THR	A	100	-8.701	-61.07	4.899	1	37.73	A	C
ATOM	725	CB	THR	A	100	-7.511	-60.345	5.513	1	41.27	A	C
ATOM	726	OG1	THR	A	100	-6.964	-61.182	6.535	1	44.05	A	O
ATOM	727	CG2	THR	A	100	-7.954	-59.086	6.223	1	50.63	A	C
ATOM	728	C	THR	A	100	-9.425	-60.218	3.899	1	36.68	A	C
ATOM	729	O	THR	A	100	-8.91	-60.005	2.828	1	36.68	A	O
ATOM	730	N	TYR	A	101	-10.636	-59.783	4.241	1	35.31	A	N
ATOM	731	CA	TYR	A	101	-11.435	-58.821	3.434	1	35.19	A	C
ATOM	732	CB	TYR	A	101	-12.82	-59.356	3.201	1	34.38	A	C
ATOM	733	CG	TYR	A	101	-12.796	-60.542	2.302	1	33.66	A	C
ATOM	734	CD1	TYR	A	101	-12.567	-61.787	2.79	1	33.9	A	C
ATOM	735	CE1	TYR	A	101	-12.498	-62.885	1.938	1	38.86	A	C
ATOM	736	CZ	TYR	A	101	-12.695	-62.705	0.583	1	42.24	A	C
ATOM	737	OH	TYR	A	101	-12.612	-63.748	-0.28	1	46.33	A	O
ATOM	738	CE2	TYR	A	101	-12.939	-61.46	0.081	1	38.59	A	C
ATOM	739	CD2	TYR	A	101	-12.987	-60.389	0.942	1	38.04	A	C
ATOM	740	C	TYR	A	101	-11.546	-57.51	4.157	1	34.93	A	C
ATOM	741	O	TYR	A	101	-11.833	-57.524	5.342	1	36.99	A	O
ATOM	742	N	ASP	A	102	-11.28	-56.394	3.469	1	35.42	A	N
ATOM	743	CA	ASP	A	102	-11.309	-55.056	4.083	1	44.08	A	C
ATOM	744	CB	ASP	A	102	-10.285	-54.092	3.443	1	47.73	A	C
ATOM	745	CG	ASP	A	102	-8.833	-54.368	3.851	1	56.95	A	C
ATOM	746	OD1	ASP	A	102	-8.565	-55.129	4.808	1	59.13	A	O
ATOM	747	OD2	ASP	A	102	-7.941	-53.808	3.165	1	62.44	A	O
ATOM	748	C	ASP	A	102	-12.665	-54.387	3.967	1	43.71	A	C
ATOM	749	O	ASP	A	102	-12.932	-53.492	4.722	1	57.62	A	O
ATOM	750	N	ASP	A	103	-13.51	-54.851	3.055	1	37.58	A	N
ATOM	751	CA	ASP	A	103	-14.717	-54.149	2.588	1	40.21	A	C
ATOM	752	CB	ASP	A	103	-14.653	-54.118	1.038	1	43.79	A	C
ATOM	753	CG	ASP	A	103	-14.615	-55.577	0.42	1	47.95	A	C
ATOM	754	OD1	ASP	A	103	-14.001	-56.506	1.048	1	41.48	A	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	755	OD2	ASP	A	103	-15.22	-55.798	-0.658	1	52.61	A	O
ATOM	756	C	ASP	A	103	-15.992	-54.906	2.989	1	38.24	A	C
ATOM	757	O	ASP	A	103	-16.92	-55.039	2.188	1	39.02	A	O
ATOM	758	N	LEU	A	104	-16.037	-55.455	4.182	1	34.45	A	N
ATOM	759	CA	LEU	A	104	-17.081	-56.434	4.498	1	35.78	A	C
ATOM	760	CB	LEU	A	104	-16.418	-57.775	4.674	1	37.65	A	C
ATOM	761	CG	LEU	A	104	-17.274	-59.02	4.644	1	37.69	A	C
ATOM	762	CD1	LEU	A	104	-16.37	-60.252	4.463	1	39.36	A	C
ATOM	763	CD2	LEU	A	104	-18.128	-59.136	5.874	1	38.07	A	C
ATOM	764	C	LEU	A	104	-17.921	-56.073	5.692	1	35.62	A	C
ATOM	765	O	LEU	A	104	-19.132	-56.143	5.616	1	35.02	A	O
ATOM	766	N	LEU	A	105	-17.29	-55.696	6.802	1	36.57	A	N
ATOM	767	CA	LEU	A	105	-17.989	-55.289	7.996	1	31.36	A	C
ATOM	768	CB	LEU	A	105	-17.311	-55.899	9.201	1	32.04	A	C
ATOM	769	CG	LEU	A	105	-17.294	-57.43	9.315	1	35.48	A	C
ATOM	770	CD1	LEU	A	105	-16.486	-57.82	10.554	1	34.34	A	C
ATOM	771	CD2	LEU	A	105	-18.708	-57.945	9.447	1	35.44	A	C
ATOM	772	C	LEU	A	105	-17.857	-53.804	8.121	1	34.05	A	C
ATOM	773	O	LEU	A	105	-16.747	-53.296	8.14	1	32.83	A	O
ATOM	774	N	ALA	A	106	-18.959	-53.081	8.251	1	35.04	A	N
ATOM	775	CA	ALA	A	106	-18.844	-51.613	8.434	1	34.16	A	C
ATOM	776	CB	ALA	A	106	-20.169	-50.935	8.195	1	33.44	A	C
ATOM	777	C	ALA	A	106	-18.375	-51.311	9.832	1	33.98	A	C
ATOM	778	O	ALA	A	106	-18.742	-51.974	10.762	1	32.86	A	O
ATOM	779	N	LYS	A	107	-17.593	-50.266	9.962	1	36.29	A	N
ATOM	780	CA	LYS	A	107	-17.06	-49.822	11.233	1	37.95	A	C
ATOM	781	CB	LYS	A	107	-15.594	-49.484	11.021	1	39.49	A	C
ATOM	782	CG	LYS	A	107	-14.85	-48.81	12.127	1	42.53	A	C
ATOM	783	CD	LYS	A	107	-13.355	-48.953	11.812	1	49.03	A	C
ATOM	784	CE	LYS	A	107	-12.46	-47.988	12.538	1	50.92	A	C
ATOM	785	NZ	LYS	A	107	-12.987	-47.709	13.887	1	54.27	A	N
ATOM	786	C	LYS	A	107	-17.781	-48.611	11.74	1	37.57	A	C
ATOM	787	O	LYS	A	107	-18.04	-48.527	12.888	1	38.51	A	O
ATOM	788	N	ASP	A	108	-18.008	-47.62	10.896	1	41.51	A	N
ATOM	789	CA	ASP	A	108	-18.862	-46.475	11.252	1	45.33	A	C
ATOM	790	CB	ASP	A	108	-18.094	-45.376	12.012	1	50.5	A	C
ATOM	791	CG	ASP	A	108	-16.78	-45.073	11.416	1	58.08	A	C
ATOM	792	OD1	ASP	A	108	-16.681	-45.084	10.184	1	61.77	A	O
ATOM	793	OD2	ASP	A	108	-15.818	-44.825	12.185	1	74.18	A	O
ATOM	794	C	ASP	A	108	-19.594	-45.96	10.014	1	40.03	A	C
ATOM	795	O	ASP	A	108	-19.451	-46.518	8.937	1	41.17	A	O
ATOM	796	N	CYS	A	109	-20.432	-44.951	10.199	1	37.48	A	N
ATOM	797	CA	CYS	A	109	-21.428	-44.585	9.225	1	38.68	A	C
ATOM	798	CB	CYS	A	109	-22.756	-45.06	9.783	1	38.13	A	C
ATOM	799	SG	CYS	A	109	-22.768	-46.857	10.032	1	43.3	A	S
ATOM	800	C	CYS	A	109	-21.442	-43.074	8.967	1	38.48	A	C
ATOM	801	O	CYS	A	109	-21.252	-42.28	9.876	1	39.92	A	O
ATOM	802	N	HIS	A	110	-21.698	-42.666	7.728	1	37.77	A	N
ATOM	803	CA	HIS	A	110	-22.021	-41.261	7.481	1	35.38	A	C
ATOM	804	CB	HIS	A	110	-20.747	-40.415	7.336	1	38.02	A	C
ATOM	805	CG	HIS	A	110	-19.832	-40.852	6.243	1	39.63	A	C
ATOM	806	ND1	HIS	A	110	-20.213	-41.687	5.21	1	47.3	A	N
ATOM	807	CE1	HIS	A	110	-19.214	-41.819	4.356	1	41.43	A	C
ATOM	808	NE2	HIS	A	110	-18.198	-41.106	4.804	1	37.91	A	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	809	CD2	HIS	A	110	-18.559	-40.49	5.976	1	39.91	A	C
ATOM	810	C	HIS	A	110	-22.995	-41.104	6.34	1	37.11	A	C
ATOM	811	O	HIS	A	110	-23.454	-42.125	5.766	1	32.86	A	O
ATOM	812	N	CYS	A	111	-23.386	-39.85	6.088	1	35.59	A	N
ATOM	813	CA	CYS	A	111	-24.429	-39.543	5.119	1	37.83	A	C
ATOM	814	CB	CYS	A	111	-25.502	-38.652	5.763	1	39.42	A	C
ATOM	815	SG	CYS	A	111	-26.387	-39.509	7.076	1	40.31	A	S
ATOM	816	C	CYS	A	111	-23.868	-38.905	3.862	1	39.56	A	C
ATOM	817	O	CYS	A	111	-23.048	-37.948	3.929	1	43.88	A	O
ATOM	818	N	ILE	A	112	-24.306	-39.408	2.706	1	39.08	A	N
ATOM	819	CA	ILE	A	112	-23.852	-38.835	1.419	1	42.88	A	C
ATOM	820	CB	ILE	A	112	-22.51	-39.437	0.965	1	43.81	A	C
ATOM	821	CG1	ILE	A	112	-22.105	-38.811	-0.375	1	43.24	A	C
ATOM	822	CD1	ILE	A	112	-20.626	-38.782	-0.534	1	42.73	A	C
ATOM	823	CG2	ILE	A	112	-22.545	-40.946	0.826	1	41.93	A	C
ATOM	824	C	ILE	A	112	-24.891	-38.817	0.28	1	47.04	A	C
ATOM	825	O	ILE	A	112	-25.482	-39.859	-0.044	1	58.35	A	O
TER	826		ILE	A	112							
ATOM	827	N	TRP	B	129	-4.147	-80.481	18.979	1	84.64	B	N
ATOM	828	CA	TRP	B	129	-4.734	-79.241	18.366	1	77.53	B	C
ATOM	829	CB	TRP	B	129	-4.199	-77.995	19.083	1	89	B	C
ATOM	830	CG	TRP	B	129	-4.63	-77.832	20.53	1	102.56	B	C
ATOM	831	CD1	TRP	B	129	-5.858	-78.141	21.078	1	100.87	B	C
ATOM	832	NE1	TRP	B	129	-5.872	-77.821	22.418	1	102.38	B	N
ATOM	833	CE2	TRP	B	129	-4.651	-77.293	22.767	1	111.5	B	C
ATOM	834	CD2	TRP	B	129	-3.844	-77.272	21.598	1	107.85	B	C
ATOM	835	CE3	TRP	B	129	-2.532	-76.763	21.685	1	103.13	B	C
ATOM	836	CZ3	TRP	B	129	-2.07	-76.285	22.93	1	99.55	B	C
ATOM	837	CH2	TRP	B	129	-2.898	-76.314	24.075	1	100.69	B	C
ATOM	838	CZ2	TRP	B	129	-4.185	-76.811	24.017	1	107.52	B	C
ATOM	839	C	TRP	B	129	-4.397	-79.133	16.875	1	65.87	B	C
ATOM	840	O	TRP	B	129	-3.269	-78.774	16.529	1	64.3	B	O
ATOM	841	N	SER	B	130	-5.344	-79.465	15.992	1	63.64	B	N
ATOM	842	CA	SER	B	130	-5.178	-79.177	14.547	1	58.11	B	C
ATOM	843	CB	SER	B	130	-6.328	-79.697	13.703	1	58.52	B	C
ATOM	844	OG	SER	B	130	-6.075	-79.414	12.331	1	60.85	B	O
ATOM	845	C	SER	B	130	-5.154	-77.682	14.352	1	55.08	B	C
ATOM	846	O	SER	B	130	-6.012	-76.99	14.899	1	52.08	B	O
ATOM	847	N	CYS	B	131	-4.157	-77.201	13.604	1	57.32	B	N
ATOM	848	CA	CYS	B	131	-4.119	-75.827	13.142	1	55.51	B	C
ATOM	849	CB	CYS	B	131	-2.87	-75.569	12.302	1	55.66	B	C
ATOM	850	SG	CYS	B	131	-1.325	-75.591	13.285	1	55.06	B	S
ATOM	851	C	CYS	B	131	-5.423	-75.371	12.419	1	54	B	C
ATOM	852	O	CYS	B	131	-5.867	-74.248	12.639	1	60.47	B	O
ATOM	853	N	LEU	B	132	-6.059	-76.256	11.656	1	49.93	B	N
ATOM	854	CA	LEU	B	132	-7.361	-75.99	11.002	1	51.9	B	C
ATOM	855	CB	LEU	B	132	-7.81	-77.213	10.166	1	54.66	B	C
ATOM	856	CG	LEU	B	132	-9.125	-77.075	9.371	1	54.16	B	C
ATOM	857	CD1	LEU	B	132	-9.138	-75.769	8.598	1	51.69	B	C
ATOM	858	CD2	LEU	B	132	-9.333	-78.236	8.411	1	55.71	B	C
ATOM	859	C	LEU	B	132	-8.456	-75.675	12.001	1	48.94	B	C
ATOM	860	O	LEU	B	132	-9.108	-74.66	11.905	1	48.74	B	O
ATOM	861	N	GLU	B	133	-8.629	-76.56	12.969	1	48.27	B	N
ATOM	862	CA	GLU	B	133	-9.638	-76.419	14.011	1	47.85	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	863	CB	GLU	B	133	-9.66	-77.647	14.911	1	51.5	B	C
ATOM	864	CG	GLU	B	133	-10.194	-78.864	14.177	1	61.81	B	C
ATOM	865	CD	GLU	B	133	-10.22	-80.105	15.042	1	71.01	B	C
ATOM	866	OE1	GLU	B	133	-9.224	-80.331	15.763	1	80.29	B	O
ATOM	867	OE2	GLU	B	133	-11.226	-80.851	14.991	1	72.66	B	O
ATOM	868	C	GLU	B	133	-9.456	-75.192	14.864	1	49.99	B	C
ATOM	869	O	GLU	B	133	-10.436	-74.56	15.216	1	51.03	B	O
ATOM	870	N	VAL	B	134	-8.21	-74.833	15.164	1	48.56	B	N
ATOM	871	CA	VAL	B	134	-7.93	-73.601	15.904	1	47.66	B	C
ATOM	872	CB	VAL	B	134	-6.451	-73.543	16.333	1	54.4	B	C
ATOM	873	CG1	VAL	B	134	-6.113	-72.197	16.959	1	56.48	B	C
ATOM	874	CG2	VAL	B	134	-6.134	-74.67	17.308	1	59.73	B	C
ATOM	875	C	VAL	B	134	-8.239	-72.408	15.01	1	42.81	B	C
ATOM	876	O	VAL	B	134	-8.775	-71.4	15.464	1	40.31	B	O
ATOM	877	N	ALA	B	135	-7.858	-72.523	13.737	1	42.75	B	N
ATOM	878	CA	ALA	B	135	-8.168	-71.5	12.765	1	42.24	B	C
ATOM	879	CB	ALA	B	135	-7.554	-71.8	11.422	1	40.45	B	C
ATOM	880	C	ALA	B	135	-9.703	-71.284	12.695	1	41.09	B	C
ATOM	881	O	ALA	B	135	-10.156	-70.13	12.843	1	40.83	B	O
ATOM	882	N	GLU	B	136	-10.478	-72.37	12.648	1	42.57	B	N
ATOM	883	CA	GLU	B	136	-11.985	-72.298	12.641	1	42.83	B	C
ATOM	884	CB	GLU	B	136	-12.624	-73.662	12.479	1	40.96	B	C
ATOM	885	CG	GLU	B	136	-12.383	-74.292	11.106	1	52.45	B	C
ATOM	886	CD	GLU	B	136	-13.049	-75.661	10.956	1	60.06	B	C
ATOM	887	OE1	GLU	B	136	-12.448	-76.703	11.322	1	66.51	B	O
ATOM	888	OE2	GLU	B	136	-14.199	-75.691	10.478	1	64.3	B	O
ATOM	889	C	GLU	B	136	-12.561	-71.659	13.884	1	45.4	B	C
ATOM	890	O	GLU	B	136	-13.49	-70.865	13.781	1	52.26	B	O
ATOM	891	N	ALA	B	137	-11.995	-71.99	15.048	1	43.05	B	N
ATOM	892	CA	ALA	B	137	-12.444	-71.417	16.32	1	44.49	B	C
ATOM	893	CB	ALA	B	137	-11.861	-72.175	17.518	1	44.93	B	C
ATOM	894	C	ALA	B	137	-12.087	-69.942	16.413	1	40.96	B	C
ATOM	895	O	ALA	B	137	-12.895	-69.19	16.88	1	39.85	B	O
ATOM	896	N	CYS	B	138	-10.89	-69.548	15.965	1	34.81	B	N
ATOM	897	CA	CYS	B	138	-10.475	-68.161	16.037	1	38.43	B	C
ATOM	898	CB	CYS	B	138	-8.98	-68.003	15.735	1	38.72	B	C
ATOM	899	SG	CYS	B	138	-8.441	-66.271	15.755	1	50.88	B	S
ATOM	900	C	CYS	B	138	-11.305	-67.331	15.067	1	39.96	B	C
ATOM	901	O	CYS	B	138	-11.791	-66.223	15.393	1	38.84	B	O
ATOM	902	N	VAL	B	139	-11.473	-67.868	13.863	1	43.03	B	N
ATOM	903	CA	VAL	B	139	-12.191	-67.133	12.803	1	41.3	B	C
ATOM	904	CB	VAL	B	139	-12.015	-67.824	11.433	1	43.29	B	C
ATOM	905	CG1	VAL	B	139	-12.952	-67.208	10.375	1	44.13	B	C
ATOM	906	CG2	VAL	B	139	-10.583	-67.688	10.973	1	40.84	B	C
ATOM	907	C	VAL	B	139	-13.661	-66.99	13.15	1	37.13	B	C
ATOM	908	O	VAL	B	139	-14.273	-65.958	12.867	1	34.89	B	O
ATOM	909	N	GLY	B	140	-14.202	-68.043	13.781	1	37.64	B	N
ATOM	910	CA	GLY	B	140	-15.569	-68.095	14.289	1	37.29	B	C
ATOM	911	C	GLY	B	140	-15.94	-67.152	15.417	1	41.77	B	C
ATOM	912	O	GLY	B	140	-17.11	-66.964	15.646	1	44.72	B	O
ATOM	913	N	ASP	B	141	-14.952	-66.554	16.08	1	39.39	B	N
ATOM	914	CA	ASP	B	141	-15.128	-65.668	17.185	1	37.52	B	C
ATOM	915	CB	ASP	B	141	-14.055	-66.037	18.226	1	39.33	B	C
ATOM	916	CG	ASP	B	141	-14.16	-65.181	19.494	1	47.58	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	917	OD1	ASP	B	141	-15.21	-65.284	20.177	1	51.89	B	O
ATOM	918	OD2	ASP	B	141	-13.232	-64.391	19.787	1	49.26	B	O
ATOM	919	C	ASP	B	141	-14.968	-64.182	16.781	1	38.08	B	C
ATOM	920	O	ASP	B	141	-14.081	-63.828	16.014	1	39.23	B	O
ATOM	921	N	VAL	B	142	-15.781	-63.295	17.323	1	38.68	B	N
ATOM	922	CA	VAL	B	142	-15.784	-61.887	16.878	1	37.8	B	C
ATOM	923	CB	VAL	B	142	-16.869	-61.061	17.565	1	40.3	B	C
ATOM	924	CG1	VAL	B	142	-16.685	-59.562	17.344	1	38.98	B	C
ATOM	925	CG2	VAL	B	142	-18.219	-61.451	16.997	1	45.37	B	C
ATOM	926	C	VAL	B	142	-14.439	-61.221	17.098	1	37.65	B	C
ATOM	927	O	VAL	B	142	-13.864	-60.696	16.163	1	34.4	B	O
ATOM	928	N	VAL	B	143	-13.932	-61.289	18.314	1	35.35	B	N
ATOM	929	CA	VAL	B	143	-12.681	-60.624	18.682	1	39.43	B	C
ATOM	930	CB	VAL	B	143	-12.564	-60.47	20.239	1	42.03	B	C
ATOM	931	CG1	VAL	B	143	-11.13	-60.189	20.709	1	37.07	B	C
ATOM	932	CG2	VAL	B	143	-13.479	-59.341	20.706	1	42.47	B	C
ATOM	933	C	VAL	B	143	-11.429	-61.299	18.098	1	38.55	B	C
ATOM	934	O	VAL	B	143	-10.522	-60.608	17.673	1	39.69	B	O
ATOM	935	N	CYS	B	144	-11.377	-62.629	18.106	1	33.67	B	N
ATOM	936	CA	CYS	B	144	-10.221	-63.31	17.624	1	39.77	B	C
ATOM	937	CB	CYS	B	144	-10.261	-64.822	17.963	1	42.41	B	C
ATOM	938	SG	CYS	B	144	-8.653	-65.673	17.776	1	50.74	B	S
ATOM	939	C	CYS	B	144	-10.07	-63.076	16.118	1	37.13	B	C
ATOM	940	O	CYS	B	144	-8.938	-62.823	15.662	1	35.09	B	O
ATOM	941	N	ASN	B	145	-11.204	-63.16	15.393	1	34.92	B	N
ATOM	942	CA	ASN	B	145	-11.285	-62.835	13.958	1	32.26	B	C
ATOM	943	CB	ASN	B	145	-12.708	-62.881	13.429	1	35.06	B	C
ATOM	944	CG	ASN	B	145	-12.764	-62.816	11.914	1	35.15	B	C
ATOM	945	OD1	ASN	B	145	-12.267	-61.857	11.308	1	34.04	B	O
ATOM	946	ND2	ASN	B	145	-13.297	-63.86	11.288	1	31.36	B	N
ATOM	947	C	ASN	B	145	-10.685	-61.475	13.68	1	35.76	B	C
ATOM	948	O	ASN	B	145	-9.768	-61.347	12.851	1	32.04	B	O
ATOM	949	N	ALA	B	146	-11.16	-60.466	14.405	1	36.14	B	N
ATOM	950	CA	ALA	B	146	-10.621	-59.095	14.249	1	36.78	B	C
ATOM	951	CB	ALA	B	146	-11.378	-58.096	15.114	1	34.28	B	C
ATOM	952	C	ALA	B	146	-9.127	-59.014	14.524	1	38.43	B	C
ATOM	953	O	ALA	B	146	-8.387	-58.379	13.74	1	38.21	B	O
ATOM	954	N	GLN	B	147	-8.659	-59.667	15.596	1	34.9	B	N
ATOM	955	CA	GLN	B	147	-7.246	-59.573	15.903	1	37.1	B	C
ATOM	956	CB	GLN	B	147	-6.93	-60.007	17.326	1	40.1	B	C
ATOM	957	CG	GLN	B	147	-7.554	-59.137	18.405	1	42.04	B	C
ATOM	958	CD	GLN	B	147	-7.049	-57.705	18.445	1	45.64	B	C
ATOM	959	OE1	GLN	B	147	-6.134	-57.31	17.745	1	46.97	B	O
ATOM	960	NE2	GLN	B	147	-7.674	-56.916	19.281	1	51.25	B	N
ATOM	961	C	GLN	B	147	-6.409	-60.383	14.928	1	37.32	B	C
ATOM	962	O	GLN	B	147	-5.284	-59.991	14.573	1	36.6	B	O
ATOM	963	N	LEU	B	148	-6.938	-61.517	14.506	1	36.07	B	N
ATOM	964	CA	LEU	B	148	-6.256	-62.287	13.514	1	38.39	B	C
ATOM	965	CB	LEU	B	148	-6.992	-63.607	13.259	1	36.05	B	C
ATOM	966	CG	LEU	B	148	-6.35	-64.506	12.213	1	40.43	B	C
ATOM	967	CD1	LEU	B	148	-5.011	-65.041	12.703	1	45.08	B	C
ATOM	968	CD2	LEU	B	148	-7.25	-65.689	11.951	1	41.59	B	C
ATOM	969	C	LEU	B	148	-6.13	-61.433	12.218	1	40.4	B	C
ATOM	970	O	LEU	B	148	-5.074	-61.397	11.592	1	39.66	B	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	971	N	ALA	B	149	-7.186	-60.727	11.827	1	35.23	B	N
ATOM	972	CA	ALA	B	149	-7.104	-59.95	10.581	1	36.99	B	C
ATOM	973	CB	ALA	B	149	-8.418	-59.276	10.238	1	34.78	B	C
ATOM	974	C	ALA	B	149	-5.985	-58.927	10.607	1	39.14	B	C
ATOM	975	O	ALA	B	149	-5.286	-58.786	9.607	1	39.83	B	O
ATOM	976	N	SER	B	150	-5.764	-58.254	11.729	1	39.56	B	N
ATOM	977	CA	SER	B	150	-4.718	-57.23	11.767	1	43.78	B	C
ATOM	978	CB	SER	B	150	-4.693	-56.499	13.079	1	46.9	B	C
ATOM	979	OG	SER	B	150	-5.887	-55.815	13.239	1	46.21	B	O
ATOM	980	C	SER	B	150	-3.356	-57.83	11.57	1	48.49	B	C
ATOM	981	O	SER	B	150	-2.488	-57.249	10.906	1	47.09	B	O
ATOM	982	N	TYR	B	151	-3.192	-59.011	12.133	1	46.28	B	N
ATOM	983	CA	TYR	B	151	-1.93	-59.708	12.073	1	46.04	B	C
ATOM	984	CB	TYR	B	151	-1.856	-60.733	13.26	1	49.6	B	C
ATOM	985	CG	TYR	B	151	-1.175	-62.018	12.973	1	53.58	B	C
ATOM	986	CD1	TYR	B	151	0.071	-62.021	12.392	1	54.29	B	C
ATOM	987	CE1	TYR	B	151	0.721	-63.186	12.1	1	61.09	B	C
ATOM	988	CZ	TYR	B	151	0.147	-64.385	12.393	1	67.39	B	C
ATOM	989	OH	TYR	B	151	0.89	-65.488	12.062	1	80.4	B	O
ATOM	990	CE2	TYR	B	151	-1.104	-64.438	13.002	1	67.14	B	C
ATOM	991	CD2	TYR	B	151	-1.755	-63.24	13.298	1	64.93	B	C
ATOM	992	C	TYR	B	151	-1.706	-60.285	10.647	1	42.07	B	C
ATOM	993	O	TYR	B	151	-0.64	-60.114	10.059	1	39.45	B	O
ATOM	994	N	LEU	B	152	-2.676	-60.995	10.1	1	40.01	B	N
ATOM	995	CA	LEU	B	152	-2.539	-61.511	8.729	1	38.13	B	C
ATOM	996	CB	LEU	B	152	-3.781	-62.263	8.298	1	38.49	B	C
ATOM	997	CG	LEU	B	152	-4.1	-63.552	9.033	1	40.64	B	C
ATOM	998	CD1	LEU	B	152	-5.257	-64.28	8.379	1	38.96	B	C
ATOM	999	CD2	LEU	B	152	-2.868	-64.438	9.041	1	42.98	B	C
ATOM	1000	C	LEU	B	152	-2.23	-60.426	7.703	1	39.75	B	C
ATOM	1001	O	LEU	B	152	-1.408	-60.62	6.794	1	40.43	B	O
ATOM	1002	N	LYS	B	153	-2.843	-59.274	7.876	1	41.28	B	N
ATOM	1003	CA	LYS	B	153	-2.566	-58.147	7.002	1	48.39	B	C
ATOM	1004	CB	LYS	B	153	-3.53	-56.971	7.209	1	47.96	B	C
ATOM	1005	CG	LYS	B	153	-4.831	-57.21	6.477	1	56.5	B	C
ATOM	1006	CD	LYS	B	153	-5.938	-56.24	6.878	1	62.78	B	C
ATOM	1007	CE	LYS	B	153	-5.721	-54.869	6.253	1	63.98	B	C
ATOM	1008	NZ	LYS	B	153	-6.228	-53.841	7.196	1	71.29	B	N
ATOM	1009	C	LYS	B	153	-1.145	-57.686	7.168	1	46.97	B	C
ATOM	1010	O	LYS	B	153	-0.434	-57.612	6.206	1	50.41	B	O
ATOM	1011	N	ALA	B	154	-0.724	-57.393	8.384	1	46.25	B	N
ATOM	1012	CA	ALA	B	154	0.582	-56.813	8.582	1	49.44	B	C
ATOM	1013	CB	ALA	B	154	0.766	-56.419	10.041	1	54.7	B	C
ATOM	1014	C	ALA	B	154	1.709	-57.732	8.126	1	47.24	B	C
ATOM	1015	O	ALA	B	154	2.796	-57.276	7.876	1	57.26	B	O
ATOM	1016	N	CYS	B	155	1.443	-59.019	8.031	1	46.82	B	N
ATOM	1017	CA	CYS	B	155	2.431	-60.008	7.692	1	47.64	B	C
ATOM	1018	CB	CYS	B	155	2.364	-61.138	8.74	1	45.94	B	C
ATOM	1019	SG	CYS	B	155	2.85	-60.645	10.43	1	45.42	B	S
ATOM	1020	C	CYS	B	155	2.244	-60.616	6.291	1	53.03	B	C
ATOM	1021	O	CYS	B	155	2.713	-61.719	6.043	1	56.8	B	O
ATOM	1022	N	SER	B	156	1.552	-59.922	5.388	1	57.31	B	N
ATOM	1023	CA	SER	B	156	1.301	-60.43	4.04	1	63.29	B	C
ATOM	1024	CB	SER	B	156	-0.152	-60.156	3.637	1	67.38	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1025	OG	SER	B	156	-0.468	-58.756	3.747	1	64.8	B	O
ATOM	1026	C	SER	B	156	2.235	-59.713	3.068	1	68.43	B	C
ATOM	1027	O	SER	B	156	2.737	-58.624	3.372	1	62.04	B	O
ATOM	1028	N	ALA	B	157	2.414	-60.306	1.887	1	86.18	B	N
ATOM	1029	CA	ALA	B	157	3.248	-59.737	0.794	1	97.02	B	C
ATOM	1030	CB	ALA	B	157	3.403	-60.769	-0.34	1	98.84	B	C
ATOM	1031	C	ALA	B	157	2.78	-58.339	0.246	1	98.22	B	C
ATOM	1032	O	ALA	B	157	1.895	-57.713	0.828	1	89.22	B	O
ATOM	1033	N	ASN	B	158	3.355	-57.881	-0.879	1	112.93	B	N
ATOM	1034	CA	ASN	B	158	3.349	-56.449	-1.304	1	120.5	B	C
ATOM	1035	CB	ASN	B	158	1.909	-55.873	-1.456	1	127.93	B	C
ATOM	1036	CG	ASN	B	158	1.648	-54.641	-0.595	1	137.85	B	C
ATOM	1037	OD1	ASN	B	158	1.613	-53.517	-1.1	1	141.42	B	O
ATOM	1038	ND2	ASN	B	158	1.469	-54.849	0.71	1	144.72	B	N
ATOM	1039	C	ASN	B	158	4.334	-55.557	-0.473	1	125.83	B	C
ATOM	1040	O	ASN	B	158	4.32	-54.326	-0.576	1	130.25	B	O
ATOM	1041	N	GLY	B	159	5.226	-56.199	0.288	1	123.24	B	N
ATOM	1042	CA	GLY	B	159	6.186	-55.526	1.17	1	114.52	B	C
ATOM	1043	C	GLY	B	159	7.37	-54.789	0.558	1	116.39	B	C
ATOM	1044	O	GLY	B	159	7.513	-53.6	0.827	1	135.54	B	O
ATOM	1045	N	ASN	B	160	8.259	-55.435	-0.213	1	111.89	B	N
ATOM	1046	CA	ASN	B	160	8.264	-56.869	-0.528	1	101.95	B	C
ATOM	1047	CB	ASN	B	160	7.967	-57.091	-2.019	1	103.89	B	C
ATOM	1048	CG	ASN	B	160	6.588	-57.712	-2.278	1	109.29	B	C
ATOM	1049	OD1	ASN	B	160	6.226	-58.733	-1.695	1	98.47	B	O
ATOM	1050	ND2	ASN	B	160	5.829	-57.114	-3.191	1	114.85	B	N
ATOM	1051	C	ASN	B	160	9.592	-57.562	-0.105	1	99.55	B	C
ATOM	1052	O	ASN	B	160	10.662	-56.955	-0.265	1	79	B	O
ATOM	1053	N	PRO	B	161	9.542	-58.818	0.412	1	104.41	B	N
ATOM	1054	CA	PRO	B	161	8.305	-59.642	0.495	1	85.67	B	C
ATOM	1055	CB	PRO	B	161	8.786	-60.981	1.084	1	86.49	B	C
ATOM	1056	CG	PRO	B	161	10.089	-60.684	1.767	1	91.58	B	C
ATOM	1057	CD	PRO	B	161	10.573	-59.298	1.363	1	96.4	B	C
ATOM	1058	C	PRO	B	161	7.234	-58.985	1.365	1	76.44	B	C
ATOM	1059	O	PRO	B	161	6.175	-58.663	0.86	1	84.26	B	O
ATOM	1060	N	CYS	B	162	7.534	-58.728	2.632	1	65.64	B	N
ATOM	1061	CA	CYS	B	162	6.619	-58.032	3.561	1	68.76	B	C
ATOM	1062	CB	CYS	B	162	6.107	-59.01	4.615	1	71.14	B	C
ATOM	1063	SG	CYS	B	162	7.474	-59.86	5.454	1	75.18	B	S
ATOM	1064	C	CYS	B	162	7.446	-56.972	4.248	1	56.83	B	C
ATOM	1065	O	CYS	B	162	8.643	-56.925	4.024	1	65.14	B	O
ATOM	1066	N	ASP	B	163	6.816	-56.154	5.081	1	52.73	B	N
ATOM	1067	CA	ASP	B	163	7.507	-55.25	5.991	1	52.92	B	C
ATOM	1068	CB	ASP	B	163	6.694	-53.957	6.138	1	57.11	B	C
ATOM	1069	CG	ASP	B	163	7.26	-52.991	7.214	1	63.98	B	C
ATOM	1070	OD1	ASP	B	163	8.132	-53.372	8.023	1	63.77	B	O
ATOM	1071	OD2	ASP	B	163	6.783	-51.843	7.278	1	71.07	B	O
ATOM	1072	C	ASP	B	163	7.681	-55.975	7.331	1	52.76	B	C
ATOM	1073	O	ASP	B	163	6.73	-56.049	8.104	1	60.97	B	O
ATOM	1074	N	LEU	B	164	8.886	-56.485	7.604	1	49.99	B	N
ATOM	1075	CA	LEU	B	164	9.164	-57.335	8.781	1	48.89	B	C
ATOM	1076	CB	LEU	B	164	10.579	-57.903	8.758	1	51.78	B	C
ATOM	1077	CG	LEU	B	164	10.975	-58.873	9.9	1	57.32	B	C
ATOM	1078	CD1	LEU	B	164	10.026	-60.056	10.052	1	60	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1079	CD2	LEU	B	164	12.366	-59.411	9.637	1	57.6	B	C
ATOM	1080	C	LEU	B	164	8.964	-56.695	10.135	1	47.44	B	C
ATOM	1081	O	LEU	B	164	8.403	-57.324	11.024	1	46.96	B	O
ATOM	1082	N	LYS	B	165	9.428	-55.462	10.295	1	50.52	B	N
ATOM	1083	CA	LYS	B	165	9.207	-54.699	11.523	1	53.94	B	C
ATOM	1084	CB	LYS	B	165	9.846	-53.311	11.43	1	58.73	B	C
ATOM	1085	CG	LYS	B	165	11.348	-53.373	11.223	1	73.59	B	C
ATOM	1086	CD	LYS	B	165	12.156	-52.406	12.079	1	81.38	B	C
ATOM	1087	CE	LYS	B	165	13.636	-52.775	12.011	1	86.48	B	C
ATOM	1088	NZ	LYS	B	165	14.476	-51.82	12.776	1	91.26	B	N
ATOM	1089	C	LYS	B	165	7.715	-54.565	11.84	1	51.6	B	C
ATOM	1090	O	LYS	B	165	7.308	-54.751	12.98	1	49.6	B	O
ATOM	1091	N	GLN	B	166	6.923	-54.264	10.807	1	49.41	B	N
ATOM	1092	CA	GLN	B	166	5.471	-54.157	10.925	1	52.87	B	C
ATOM	1093	CB	GLN	B	166	4.879	-53.605	9.611	1	63.88	B	C
ATOM	1094	CG	GLN	B	166	3.385	-53.873	9.411	1	73.01	B	C
ATOM	1095	CD	GLN	B	166	2.679	-52.905	8.465	1	77.98	B	C
ATOM	1096	OE1	GLN	B	166	3.31	-52.144	7.712	1	69.61	B	O
ATOM	1097	NE2	GLN	B	166	1.339	-52.935	8.508	1	76.38	B	N
ATOM	1098	C	GLN	B	166	4.834	-55.5	11.287	1	44.34	B	C
ATOM	1099	O	GLN	B	166	3.994	-55.572	12.175	1	48.1	B	O
ATOM	1100	N	CYS	B	167	5.246	-56.562	10.611	1	41.5	B	N
ATOM	1101	CA	CYS	B	167	4.703	-57.903	10.875	1	40.85	B	C
ATOM	1102	CB	CYS	B	167	5.342	-58.935	9.975	1	39.5	B	C
ATOM	1103	SG	CYS	B	167	4.926	-60.658	10.33	1	44.1	B	S
ATOM	1104	C	CYS	B	167	4.966	-58.275	12.323	1	39.76	B	C
ATOM	1105	O	CYS	B	167	4.077	-58.714	13.026	1	40.44	B	O
ATOM	1106	N	GLN	B	168	6.174	-58.012	12.777	1	39.45	B	N
ATOM	1107	CA	GLN	B	168	6.591	-58.372	14.159	1	40.53	B	C
ATOM	1108	CB	GLN	B	168	8.108	-58.213	14.287	1	42.35	B	C
ATOM	1109	CG	GLN	B	168	8.862	-59.354	13.6	1	46.29	B	C
ATOM	1110	CD	GLN	B	168	10.388	-59.207	13.697	1	49.83	B	C
ATOM	1111	OE1	GLN	B	168	10.916	-58.115	13.648	1	45.58	B	O
ATOM	1112	NE2	GLN	B	168	11.087	-60.325	13.832	1	52.47	B	N
ATOM	1113	C	GLN	B	168	5.842	-57.608	15.237	1	40.56	B	C
ATOM	1114	O	GLN	B	168	5.483	-58.154	16.255	1	37.84	B	O
ATOM	1115	N	ALA	B	169	5.609	-56.33	15.014	1	45.74	B	N
ATOM	1116	CA	ALA	B	169	4.838	-55.519	15.954	1	49.57	B	C
ATOM	1117	CB	ALA	B	169	4.899	-54.041	15.54	1	46.23	B	C
ATOM	1118	C	ALA	B	169	3.381	-56.026	16.009	1	48.45	B	C
ATOM	1119	O	ALA	B	169	2.778	-56.15	17.077	1	47.76	B	O
ATOM	1120	N	ALA	B	170	2.826	-56.349	14.849	1	47.07	B	N
ATOM	1121	CA	ALA	B	170	1.456	-56.866	14.808	1	45.45	B	C
ATOM	1122	CB	ALA	B	170	0.939	-56.897	13.369	1	45.27	B	C
ATOM	1123	C	ALA	B	170	1.332	-58.251	15.472	1	41.61	B	C
ATOM	1124	O	ALA	B	170	0.3	-58.568	16.016	1	43.57	B	O
ATOM	1125	N	ILE	B	171	2.387	-59.06	15.442	1	44.84	B	N
ATOM	1126	CA	ILE	B	171	2.39	-60.353	16.121	1	40.1	B	C
ATOM	1127	CB	ILE	B	171	3.542	-61.247	15.66	1	41.01	B	C
ATOM	1128	CG1	ILE	B	171	3.37	-61.579	14.167	1	44.02	B	C
ATOM	1129	CD1	ILE	B	171	4.553	-62.333	13.553	1	46.95	B	C
ATOM	1130	CG2	ILE	B	171	3.518	-62.613	16.393	1	45.1	B	C
ATOM	1131	C	ILE	B	171	2.397	-60.188	17.626	1	40.08	B	C
ATOM	1132	O	ILE	B	171	1.657	-60.845	18.329	1	40.04	B	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1133	N	ARG	B	172	3.227	-59.291	18.107	1	45.58	B	N
ATOM	1134	CA	ARG	B	172	3.257	-58.93	19.523	1	46.46	B	C
ATOM	1135	CB	ARG	B	172	4.37	-57.909	19.791	1	46.22	B	C
ATOM	1136	CG	ARG	B	172	5.772	-58.491	19.73	1	49.52	B	C
ATOM	1137	CD	ARG	B	172	6.868	-57.504	20.198	1	46.28	B	C
ATOM	1138	NE	ARG	B	172	7.624	-57.171	19.007	1	58.43	B	N
ATOM	1139	CZ	ARG	B	172	7.71	-55.975	18.421	1	58.61	B	C
ATOM	1140	NH1	ARG	B	172	7.203	-54.883	18.958	1	53.14	B	N
ATOM	1141	NH2	ARG	B	172	8.369	-55.878	17.286	1	62.38	B	N
ATOM	1142	C	ARG	B	172	1.908	-58.379	19.996	1	49.77	B	C
ATOM	1143	O	ARG	B	172	1.4	-58.762	21.049	1	53.25	B	O
ATOM	1144	N	PHE	B	173	1.306	-57.501	19.207	1	49.75	B	N
ATOM	1145	CA	PHE	B	173	0.027	-56.945	19.586	1	49.26	B	C
ATOM	1146	CB	PHE	B	173	-0.359	-55.824	18.613	1	52.98	B	C
ATOM	1147	CG	PHE	B	173	-1.567	-55.052	19.032	1	52.42	B	C
ATOM	1148	CD1	PHE	B	173	-2.831	-55.46	18.652	1	49.14	B	C
ATOM	1149	CE1	PHE	B	173	-3.944	-54.743	19.059	1	51.98	B	C
ATOM	1150	CZ	PHE	B	173	-3.799	-53.612	19.846	1	52.24	B	C
ATOM	1151	CE2	PHE	B	173	-2.539	-53.201	20.242	1	47.25	B	C
ATOM	1152	CD2	PHE	B	173	-1.435	-53.908	19.818	1	54.59	B	C
ATOM	1153	C	PHE	B	173	-1.029	-58.05	19.63	1	50.95	B	C
ATOM	1154	O	PHE	B	173	-1.83	-58.124	20.566	1	49.81	B	O
ATOM	1155	N	PHE	B	174	-1.028	-58.918	18.622	1	42.7	B	N
ATOM	1156	CA	PHE	B	174	-1.977	-60.032	18.602	1	42.57	B	C
ATOM	1157	CB	PHE	B	174	-1.761	-60.892	17.359	1	41.06	B	C
ATOM	1158	CG	PHE	B	174	-2.638	-62.078	17.27	1	41.99	B	C
ATOM	1159	CD1	PHE	B	174	-3.917	-61.963	16.813	1	46.31	B	C
ATOM	1160	CE1	PHE	B	174	-4.734	-63.074	16.682	1	48.07	B	C
ATOM	1161	CZ	PHE	B	174	-4.26	-64.328	16.998	1	51.45	B	C
ATOM	1162	CE2	PHE	B	174	-2.965	-64.456	17.457	1	50.82	B	C
ATOM	1163	CD2	PHE	B	174	-2.166	-63.334	17.59	1	49.07	B	C
ATOM	1164	C	PHE	B	174	-1.889	-60.869	19.876	1	45.11	B	C
ATOM	1165	O	PHE	B	174	-2.911	-61.1	20.531	1	45.28	B	O
ATOM	1166	N	TYR	B	175	-0.689	-61.298	20.266	1	45.39	B	N
ATOM	1167	CA	TYR	B	175	-0.614	-62.219	21.415	1	48.53	B	C
ATOM	1168	CB	TYR	B	175	0.685	-63.002	21.406	1	43.19	B	C
ATOM	1169	CG	TYR	B	175	0.639	-64.146	20.427	1	43.94	B	C
ATOM	1170	CD1	TYR	B	175	-0.117	-65.27	20.7	1	41.93	B	C
ATOM	1171	CE1	TYR	B	175	-0.173	-66.325	19.845	1	39.55	B	C
ATOM	1172	CZ	TYR	B	175	0.553	-66.303	18.689	1	44.93	B	C
ATOM	1173	OH	TYR	B	175	0.48	-67.389	17.823	1	48.57	B	O
ATOM	1174	CE2	TYR	B	175	1.328	-65.197	18.381	1	46.09	B	C
ATOM	1175	CD2	TYR	B	175	1.361	-64.12	19.238	1	42.3	B	C
ATOM	1176	C	TYR	B	175	-0.865	-61.542	22.782	1	55.58	B	C
ATOM	1177	O	TYR	B	175	-1.227	-62.218	23.729	1	60.65	B	O
ATOM	1178	N	GLN	B	176	-0.71	-60.222	22.865	1	53.67	B	N
ATOM	1179	CA	GLN	B	176	-1.148	-59.478	24.02	1	60.16	B	C
ATOM	1180	CB	GLN	B	176	-0.25	-58.264	24.197	1	64.26	B	C
ATOM	1181	CG	GLN	B	176	1.172	-58.593	24.614	1	67.62	B	C
ATOM	1182	CD	GLN	B	176	2.143	-57.554	24.12	1	74.94	B	C
ATOM	1183	OE1	GLN	B	176	1.767	-56.411	23.838	1	83.26	B	O
ATOM	1184	NE2	GLN	B	176	3.4	-57.943	23.988	1	86.57	B	N
ATOM	1185	C	GLN	B	176	-2.604	-58.98	23.96	1	63.93	B	C
ATOM	1186	O	GLN	B	176	-2.98	-58.178	24.794	1	71.6	B	O

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ATOM	1187	N	ASN	B	177	-3.406	-59.384	22.979	1	56.98	B	N
ATOM	1188	CA	ASN	B	177	-4.779	-58.898	22.873	1	52.82	B	C
ATOM	1189	CB	ASN	B	177	-4.868	-57.792	21.842	1	55.87	B	C
ATOM	1190	CG	ASN	B	177	-4.333	-56.495	22.362	1	54.56	B	C
ATOM	1191	OD1	ASN	B	177	-3.257	-56.07	22.009	1	55.98	B	O
ATOM	1192	ND2	ASN	B	177	-5.089	-55.869	23.215	1	56.45	B	N
ATOM	1193	C	ASN	B	177	-5.729	-60.017	22.547	1	52.45	B	C
ATOM	1194	O	ASN	B	177	-6.773	-59.815	21.909	1	54.86	B	O
ATOM	1195	N	ILE	B	178	-5.384	-61.195	23.05	1	50.55	B	N
ATOM	1196	CA	ILE	B	178	-6.178	-62.383	22.855	1	50.34	B	C
ATOM	1197	CB	ILE	B	178	-5.699	-63.131	21.563	1	59.17	B	C
ATOM	1198	CG1	ILE	B	178	-6.877	-63.424	20.675	1	60.02	B	C
ATOM	1199	CD1	ILE	B	178	-7.267	-62.175	19.944	1	64.99	B	C
ATOM	1200	CG2	ILE	B	178	-4.806	-64.353	21.765	1	57.65	B	C
ATOM	1201	C	ILE	B	178	-5.975	-63.125	24.156	1	53.58	B	C
ATOM	1202	O	ILE	B	178	-4.874	-63.089	24.698	1	52.87	B	O
ATOM	1203	N	PRO	B	179	-7.026	-63.767	24.682	1	59.37	B	N
ATOM	1204	CA	PRO	B	179	-6.821	-64.495	25.925	1	65.12	B	C
ATOM	1205	CB	PRO	B	179	-8.194	-65.133	26.192	1	67.72	B	C
ATOM	1206	CG	PRO	B	179	-9.159	-64.453	25.279	1	66.95	B	C
ATOM	1207	CD	PRO	B	179	-8.357	-64.026	24.098	1	62.5	B	C
ATOM	1208	C	PRO	B	179	-5.756	-65.575	25.765	1	65.21	B	C
ATOM	1209	O	PRO	B	179	-5.638	-66.136	24.674	1	62.76	B	O
ATOM	1210	N	PHE	B	180	-5	-65.832	26.837	1	64.23	B	N
ATOM	1211	CA	PHE	B	180	-3.96	-66.882	26.892	1	62.82	B	C
ATOM	1212	CB	PHE	B	180	-3.332	-66.947	28.31	1	64.6	B	C
ATOM	1213	CG	PHE	B	180	-2.349	-68.082	28.503	1	69.56	B	C
ATOM	1214	CD1	PHE	B	180	-2.788	-69.356	28.897	1	73.32	B	C
ATOM	1215	CE1	PHE	B	180	-1.886	-70.411	29.063	1	75.21	B	C
ATOM	1216	CZ	PHE	B	180	-0.526	-70.212	28.834	1	75.02	B	C
ATOM	1217	CE2	PHE	B	180	-0.076	-68.959	28.435	1	76.14	B	C
ATOM	1218	CD2	PHE	B	180	-0.983	-67.899	28.274	1	73.14	B	C
ATOM	1219	C	PHE	B	180	-4.453	-68.28	26.456	1	65.97	B	C
ATOM	1220	O	PHE	B	180	-3.693	-69.053	25.854	1	68.73	B	O
ATOM	1221	N	ASN	B	181	-5.7	-68.622	26.762	1	70.01	B	N
ATOM	1222	CA	ASN	B	181	-6.215	-69.967	26.411	1	73.87	B	C
ATOM	1223	CB	ASN	B	181	-7.587	-70.346	27.071	1	78.98	B	C
ATOM	1224	CG	ASN	B	181	-8.382	-69.139	27.641	1	89.31	B	C
ATOM	1225	OD1	ASN	B	181	-7.947	-68.476	28.589	1	82.44	B	O
ATOM	1226	ND2	ASN	B	181	-9.575	-68.892	27.096	1	97.28	B	N
ATOM	1227	C	ASN	B	181	-6.235	-70.144	24.888	1	69.59	B	C
ATOM	1228	O	ASN	B	181	-5.875	-71.198	24.364	1	68.28	B	O
ATOM	1229	N	ILE	B	182	-6.59	-69.077	24.186	1	63.15	B	N
ATOM	1230	CA	ILE	B	182	-6.667	-69.083	22.715	1	63.74	B	C
ATOM	1231	CB	ILE	B	182	-7.604	-67.938	22.193	1	66.17	B	C
ATOM	1232	CG1	ILE	B	182	-9.065	-68.196	22.601	1	74.9	B	C
ATOM	1233	CD1	ILE	B	182	-9.438	-67.767	24.007	1	75.65	B	C
ATOM	1234	CG2	ILE	B	182	-7.537	-67.809	20.687	1	61.77	B	C
ATOM	1235	C	ILE	B	182	-5.253	-68.947	22.141	1	53.94	B	C
ATOM	1236	O	ILE	B	182	-4.877	-69.634	21.175	1	53.75	B	O
ATOM	1237	N	ALA	B	183	-4.484	-68.037	22.733	1	48.16	B	N
ATOM	1238	CA	ALA	B	183	-3.119	-67.823	22.336	1	48.24	B	C
ATOM	1239	CB	ALA	B	183	-2.456	-66.811	23.228	1	44.6	B	C
ATOM	1240	C	ALA	B	183	-2.328	-69.122	22.299	1	48.09	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1241	O	ALA	B	183	-1.649	-69.39	21.326	1	47.73	B	O
ATOM	1242	N	GLN	B	184	-2.461	-69.957	23.315	1	55.71	B	N
ATOM	1243	CA	GLN	B	184	-1.652	-71.185	23.372	1	55.12	B	C
ATOM	1244	CB	GLN	B	184	-1.578	-71.785	24.781	1	57.57	B	C
ATOM	1245	CG	GLN	B	184	-2.764	-72.607	25.229	1	64.02	B	C
ATOM	1246	CD	GLN	B	184	-2.686	-72.912	26.716	1	86.43	B	C
ATOM	1247	OE1	GLN	B	184	-1.591	-73.071	27.276	1	89.95	B	O
ATOM	1248	NE2	GLN	B	184	-3.843	-72.986	27.369	1	94.41	B	N
ATOM	1249	C	GLN	B	184	-2.115	-72.203	22.366	1	45.84	B	C
ATOM	1250	O	GLN	B	184	-1.292	-72.925	21.832	1	49.16	B	O
ATOM	1251	N	MET	B	185	-3.409	-72.264	22.088	1	47.29	B	N
ATOM	1252	CA	MET	B	185	-3.885	-73.175	21.033	1	53.23	B	C
ATOM	1253	CB	MET	B	185	-5.39	-73.234	20.991	1	60.76	B	C
ATOM	1254	CG	MET	B	185	-5.959	-73.874	22.24	1	65.64	B	C
ATOM	1255	SD	MET	B	185	-7.73	-74.059	22.101	1	71.68	B	S
ATOM	1256	CE	MET	B	185	-8.356	-72.459	22.587	1	70.06	B	C
ATOM	1257	C	MET	B	185	-3.343	-72.796	19.651	1	52.74	B	C
ATOM	1258	O	MET	B	185	-2.972	-73.667	18.881	1	50.46	B	O
ATOM	1259	N	LEU	B	186	-3.256	-71.496	19.373	1	52.44	B	N
ATOM	1260	CA	LEU	B	186	-2.648	-71.022	18.148	1	50.77	B	C
ATOM	1261	CB	LEU	B	186	-2.898	-69.522	17.972	1	51.34	B	C
ATOM	1262	CG	LEU	B	186	-4.333	-69.131	17.619	1	57.24	B	C
ATOM	1263	CD1	LEU	B	186	-4.702	-67.788	18.209	1	57.57	B	C
ATOM	1264	CD2	LEU	B	186	-4.535	-69.1	16.11	1	60.68	B	C
ATOM	1265	C	LEU	B	186	-1.149	-71.282	18.14	1	52.74	B	C
ATOM	1266	O	LEU	B	186	-0.594	-71.713	17.148	1	50.08	B	O
ATOM	1267	N	ALA	B	187	-0.479	-70.953	19.233	1	54.61	B	N
ATOM	1268	CA	ALA	B	187	0.981	-71.006	19.257	1	54.45	B	C
ATOM	1269	CB	ALA	B	187	1.525	-70.386	20.538	1	59.9	B	C
ATOM	1270	C	ALA	B	187	1.488	-72.407	19.091	1	47.38	B	C
ATOM	1271	O	ALA	B	187	2.471	-72.618	18.411	1	53.43	B	O
ATOM	1272	N	PHE	B	188	0.787	-73.366	19.672	1	53.03	B	N
ATOM	1273	CA	PHE	B	188	1.255	-74.749	19.715	1	53.46	B	C
ATOM	1274	CB	PHE	B	188	1.254	-75.265	21.179	1	53.65	B	C
ATOM	1275	CG	PHE	B	188	2.08	-74.401	22.098	1	53.95	B	C
ATOM	1276	CD1	PHE	B	188	3.438	-74.276	21.895	1	57.34	B	C
ATOM	1277	CE1	PHE	B	188	4.201	-73.439	22.685	1	60.31	B	C
ATOM	1278	CZ	PHE	B	188	3.603	-72.704	23.687	1	57.25	B	C
ATOM	1279	CE2	PHE	B	188	2.249	-72.811	23.897	1	55.85	B	C
ATOM	1280	CD2	PHE	B	188	1.496	-73.647	23.099	1	58.14	B	C
ATOM	1281	C	PHE	B	188	0.53	-75.683	18.787	1	55.48	B	C
ATOM	1282	O	PHE	B	188	0.866	-76.862	18.755	1	55.92	B	O
ATOM	1283	N	CYS	B	189	-0.412	-75.182	17.985	1	55.03	B	N
ATOM	1284	CA	CYS	B	189	-1.143	-76.056	17.026	1	53.99	B	C
ATOM	1285	CB	CYS	B	189	-2.223	-75.259	16.209	1	53.92	B	C
ATOM	1286	SG	CYS	B	189	-1.575	-74.201	14.852	1	52.05	B	S
ATOM	1287	C	CYS	B	189	-0.134	-76.737	16.069	1	47.38	B	C
ATOM	1288	O	CYS	B	189	0.885	-76.149	15.684	1	43.82	B	O
ATOM	1289	N	ASP	B	190	-0.432	-77.958	15.661	1	51.77	B	N
ATOM	1290	CA	ASP	B	190	0.402	-78.647	14.683	1	57.63	B	C
ATOM	1291	CB	ASP	B	190	1.408	-79.561	15.403	1	63.18	B	C
ATOM	1292	CG	ASP	B	190	2.592	-79.963	14.522	1	67.21	B	C
ATOM	1293	OD1	ASP	B	190	2.941	-79.209	13.574	1	58.51	B	O
ATOM	1294	OD2	ASP	B	190	3.152	-81.056	14.763	1	79.87	B	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1295	C	ASP	B	190	-0.47	-79.445	13.725	1	58.05	B	C
ATOM	1296	O	ASP	B	190	-1.675	-79.531	13.909	1	62.51	B	O
ATOM	1297	N	CYS	B	191	0.14	-80.003	12.689	1	64.27	B	N
ATOM	1298	CA	CYS	B	191	-0.58	-80.768	11.682	1	71.75	B	C
ATOM	1299	CB	CYS	B	191	-0.587	-79.99	10.362	1	69.9	B	C
ATOM	1300	SG	CYS	B	191	-1.43	-78.411	10.435	1	73.19	B	S
ATOM	1301	C	CYS	B	191	0.084	-82.104	11.399	1	73.29	B	C
ATOM	1302	O	CYS	B	191	1.324	-82.162	11.275	1	75.73	B	O
ATOM	1303	N	ALA	B	192	-0.746	-83.146	11.242	1	73.48	B	N
ATOM	1304	CA	ALA	B	192	-0.37	-84.37	10.506	1	74.57	B	C
ATOM	1305	CB	ALA	B	192	-1.611	-85.186	10.186	1	67.42	B	C
ATOM	1306	C	ALA	B	192	0.371	-83.993	9.215	1	78.28	B	C
ATOM	1307	O	ALA	B	192	0.022	-82.997	8.579	1	86.12	B	O
ATOM	1308	N	GLN	B	193	1.406	-84.748	8.847	1	86.15	B	N
ATOM	1309	CA	GLN	B	193	2.189	-84.45	7.62	1	95.78	B	C
ATOM	1310	CB	GLN	B	193	3.411	-85.382	7.514	1	98.28	B	C
ATOM	1311	CG	GLN	B	193	4.273	-85.198	6.263	1	103.53	B	C
ATOM	1312	CD	GLN	B	193	4.754	-83.764	6.07	1	112.66	B	C
ATOM	1313	OE1	GLN	B	193	4.985	-83.034	7.04	1	121.3	B	O
ATOM	1314	NE2	GLN	B	193	4.917	-83.356	4.815	1	112.47	B	N
ATOM	1315	C	GLN	B	193	1.311	-84.547	6.349	1	95.46	B	C
ATOM	1316	O	GLN	B	193	1.425	-83.73	5.427	1	80.54	B	O
ATOM	1317	N	SER	B	194	0.461	-85.574	6.333	1	96.23	B	N
ATOM	1318	CA	SER	B	194	-0.644	-85.72	5.38	1	93.44	B	C
ATOM	1319	CB	SER	B	194	-1.542	-86.916	5.818	1	90.15	B	C
ATOM	1320	OG	SER	B	194	-2.93	-86.615	5.837	1	88.17	B	O
ATOM	1321	C	SER	B	194	-1.472	-84.419	5.159	1	87.76	B	C
ATOM	1322	O	SER	B	194	-1.531	-83.905	4.046	1	95.38	B	O
ATOM	1323	N	ASP	B	195	-2.03	-83.868	6.235	1	78.51	B	N
ATOM	1324	CA	ASP	B	195	-3.197	-82.954	6.184	1	75.66	B	C
ATOM	1325	CB	ASP	B	195	-3.774	-82.827	7.592	1	71.8	B	C
ATOM	1326	CG	ASP	B	195	-5.114	-82.209	7.606	1	75.31	B	C
ATOM	1327	OD1	ASP	B	195	-5.516	-81.587	6.596	1	82.32	B	O
ATOM	1328	OD2	ASP	B	195	-5.773	-82.338	8.648	1	77.88	B	O
ATOM	1329	C	ASP	B	195	-2.97	-81.544	5.553	1	73	B	C
ATOM	1330	O	ASP	B	195	-2.546	-80.586	6.228	1	63.09	B	O
ATOM	1331	N	ILE	B	196	-3.297	-81.438	4.262	1	67.49	B	N
ATOM	1332	CA	ILE	B	196	-2.993	-80.247	3.47	1	65.54	B	C
ATOM	1333	CB	ILE	B	196	-3.176	-80.496	1.932	1	66.74	B	C
ATOM	1334	CG1	ILE	B	196	-2.214	-81.591	1.41	1	69.06	B	C
ATOM	1335	CD1	ILE	B	196	-0.744	-81.247	1.455	1	74.54	B	C
ATOM	1336	CG2	ILE	B	196	-2.989	-79.218	1.119	1	65.37	B	C
ATOM	1337	C	ILE	B	196	-3.789	-79.029	3.968	1	58.53	B	C
ATOM	1338	O	ILE	B	196	-3.216	-77.93	4.055	1	54.61	B	O
ATOM	1339	N	PRO	B	197	-5.095	-79.208	4.274	1	54.87	B	N
ATOM	1340	CA	PRO	B	197	-5.834	-78.068	4.828	1	57.6	B	C
ATOM	1341	CB	PRO	B	197	-7.275	-78.595	4.971	1	58.82	B	C
ATOM	1342	CG	PRO	B	197	-7.35	-79.886	4.202	1	56.94	B	C
ATOM	1343	CD	PRO	B	197	-6.008	-80.154	3.6	1	54.63	B	C
ATOM	1344	C	PRO	B	197	-5.296	-77.59	6.168	1	57.88	B	C
ATOM	1345	O	PRO	B	197	-5.23	-76.353	6.409	1	48.36	B	O
ATOM	1346	N	CYS	B	198	-4.91	-78.54	7.03	1	54.2	B	N
ATOM	1347	CA	CYS	B	198	-4.291	-78.174	8.304	1	53.53	B	C
ATOM	1348	CB	CYS	B	198	-4.029	-79.381	9.184	1	56.05	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1349	SG	CYS	B	198	-3.412	-78.923	10.822	1	58.84	B	S
ATOM	1350	C	CYS	B	198	-3.001	-77.406	8.026	1	51.97	B	C
ATOM	1351	O	CYS	B	198	-2.771	-76.334	8.571	1	52.83	B	O
ATOM	1352	N	GLN	B	199	-2.209	-77.937	7.119	1	47.79	B	N
ATOM	1353	CA	GLN	B	199	-0.902	-77.385	6.78	1	52.43	B	C
ATOM	1354	CB	GLN	B	199	-0.185	-78.37	5.793	1	58.44	B	C
ATOM	1355	CG	GLN	B	199	1.33	-78.546	5.935	1	73.01	B	C
ATOM	1356	CD	GLN	B	199	1.782	-79.426	7.115	1	74.68	B	C
ATOM	1357	OE1	GLN	B	199	1.185	-80.477	7.425	1	75.27	B	O
ATOM	1358	NE2	GLN	B	199	2.86	-79	7.77	1	74.04	B	N
ATOM	1359	C	GLN	B	199	-1.058	-75.967	6.193	1	49.15	B	C
ATOM	1360	O	GLN	B	199	-0.213	-75.071	6.419	1	47.93	B	O
ATOM	1361	N	GLN	B	200	-2.122	-75.765	5.412	1	48.73	B	N
ATOM	1362	CA	GLN	B	200	-2.41	-74.437	4.827	1	46.88	B	C
ATOM	1363	CB	GLN	B	200	-3.532	-74.512	3.797	1	43.45	B	C
ATOM	1364	CG	GLN	B	200	-3.065	-75.186	2.504	1	50.1	B	C
ATOM	1365	CD	GLN	B	200	-4.157	-75.825	1.653	1	49.03	B	C
ATOM	1366	OE1	GLN	B	200	-5.169	-76.353	2.14	1	52.56	B	O
ATOM	1367	NE2	GLN	B	200	-3.932	-75.82	0.372	1	53.41	B	N
ATOM	1368	C	GLN	B	200	-2.739	-73.445	5.943	1	46.96	B	C
ATOM	1369	O	GLN	B	200	-2.29	-72.306	5.913	1	51.15	B	O
ATOM	1370	N	SER	B	201	-3.495	-73.894	6.929	1	43.94	B	N
ATOM	1371	CA	SER	B	201	-3.8	-73.07	8.102	1	46.83	B	C
ATOM	1372	CB	SER	B	201	-4.78	-73.797	9.003	1	45.32	B	C
ATOM	1373	OG	SER	B	201	-5.879	-74.221	8.232	1	44.17	B	O
ATOM	1374	C	SER	B	201	-2.559	-72.712	8.904	1	46.79	B	C
ATOM	1375	O	SER	B	201	-2.353	-71.532	9.271	1	42.69	B	O
ATOM	1376	N	LYS	B	202	-1.709	-73.718	9.12	1	49.4	B	N
ATOM	1377	CA	LYS	B	202	-0.425	-73.512	9.793	1	47.05	B	C
ATOM	1378	CB	LYS	B	202	0.42	-74.784	9.857	1	51.18	B	C
ATOM	1379	CG	LYS	B	202	1.588	-74.627	10.861	1	55.38	B	C
ATOM	1380	CD	LYS	B	202	2.777	-75.542	10.59	1	63	B	C
ATOM	1381	CE	LYS	B	202	2.715	-76.857	11.374	1	67.06	B	C
ATOM	1382	NZ	LYS	B	202	3.977	-77.067	12.16	1	73.1	B	N
ATOM	1383	C	LYS	B	202	0.379	-72.414	9.141	1	45.09	B	C
ATOM	1384	O	LYS	B	202	0.823	-71.466	9.799	1	49.56	B	O
ATOM	1385	N	GLU	B	203	0.572	-72.533	7.844	1	48.11	B	N
ATOM	1386	CA	GLU	B	203	1.378	-71.561	7.163	1	52.95	B	C
ATOM	1387	CB	GLU	B	203	1.463	-71.848	5.658	1	67.8	B	C
ATOM	1388	CG	GLU	B	203	2.39	-70.851	4.936	1	83.09	B	C
ATOM	1389	CD	GLU	B	203	2.568	-71.13	3.456	1	91.01	B	C
ATOM	1390	OE1	GLU	B	203	3.221	-70.29	2.802	1	89.48	B	O
ATOM	1391	OE2	GLU	B	203	2.067	-72.171	2.957	1	90.34	B	O
ATOM	1392	C	GLU	B	203	0.853	-70.155	7.397	1	47.85	B	C
ATOM	1393	O	GLU	B	203	1.633	-69.259	7.611	1	46.98	B	O
ATOM	1394	N	ALA	B	204	-0.467	-69.983	7.357	1	48.71	B	N
ATOM	1395	CA	ALA	B	204	-1.107	-68.684	7.518	1	46.92	B	C
ATOM	1396	CB	ALA	B	204	-2.604	-68.797	7.174	1	49.41	B	C
ATOM	1397	C	ALA	B	204	-0.945	-68.221	8.935	1	47.26	B	C
ATOM	1398	O	ALA	B	204	-0.606	-67.079	9.202	1	46.67	B	O
ATOM	1399	N	LEU	B	205	-1.23	-69.136	9.855	1	44.98	B	N
ATOM	1400	CA	LEU	B	205	-1.37	-68.777	11.234	1	47.1	B	C
ATOM	1401	CB	LEU	B	205	-2.06	-69.881	12.042	1	45.17	B	C
ATOM	1402	CG	LEU	B	205	-3.575	-70.024	11.944	1	42.73	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1403	CD1	LEU	B	205	-4.038	-71.106	12.904	1	45.26	B	C
ATOM	1404	CD2	LEU	B	205	-4.283	-68.704	12.236	1	43.41	B	C
ATOM	1405	C	LEU	B	205	-0.034	-68.471	11.846	1	53.3	B	C
ATOM	1406	O	LEU	B	205	0.007	-67.777	12.844	1	61.02	B	O
ATOM	1407	N	HIS	B	206	1.051	-68.998	11.293	1	54.96	B	N
ATOM	1408	CA	HIS	B	206	2.375	-68.74	11.886	1	61.58	B	C
ATOM	1409	CB	HIS	B	206	3.056	-70.067	12.226	1	57.82	B	C
ATOM	1410	CG	HIS	B	206	2.336	-70.838	13.296	1	59.97	B	C
ATOM	1411	ND1	HIS	B	206	2.543	-72.186	13.517	1	60.06	B	N
ATOM	1412	CE1	HIS	B	206	1.762	-72.591	14.503	1	60.33	B	C
ATOM	1413	NE2	HIS	B	206	1.058	-71.555	14.931	1	59.19	B	N
ATOM	1414	CD2	HIS	B	206	1.399	-70.447	14.198	1	56.57	B	C
ATOM	1415	C	HIS	B	206	3.273	-67.77	11.088	1	61.5	B	C
ATOM	1416	O	HIS	B	206	4.45	-67.606	11.416	1	72.4	B	O
ATOM	1417	N	SER	B	207	2.678	-67.083	10.105	1	64.07	B	N
ATOM	1418	CA	SER	B	207	3.314	-66.013	9.326	1	68.12	B	C
ATOM	1419	CB	SER	B	207	3.451	-64.755	10.191	1	79.2	B	C
ATOM	1420	OG	SER	B	207	2.496	-63.801	9.775	1	90.22	B	O
ATOM	1421	C	SER	B	207	4.643	-66.423	8.707	1	64.74	B	C
ATOM	1422	O	SER	B	207	5.654	-65.71	8.762	1	59.99	B	O
ATOM	1423	N	LYS	B	208	4.632	-67.598	8.118	1	55.13	B	N
ATOM	1424	CA	LYS	B	208	5.874	-68.231	7.785	1	58.17	B	C
ATOM	1425	CB	LYS	B	208	5.637	-69.626	7.206	1	55.91	B	C
ATOM	1426	CG	LYS	B	208	4.904	-70.554	8.15	1	59.38	B	C
ATOM	1427	CD	LYS	B	208	5.667	-70.885	9.43	1	68.94	B	C
ATOM	1428	CE	LYS	B	208	6.486	-72.171	9.327	1	69.92	B	C
ATOM	1429	NZ	LYS	B	208	5.643	-73.323	8.862	1	76.72	B	N
ATOM	1430	C	LYS	B	208	6.713	-67.349	6.846	1	54.5	B	C
ATOM	1431	O	LYS	B	208	7.799	-66.88	7.214	1	60.6	B	O
ATOM	1432	N	THR	B	209	6.193	-67.055	5.676	1	48.52	B	N
ATOM	1433	CA	THR	B	209	7.018	-66.411	4.657	1	55.6	B	C
ATOM	1434	CB	THR	B	209	6.317	-66.434	3.279	1	58.26	B	C
ATOM	1435	OG1	THR	B	209	4.984	-65.915	3.403	1	57.27	B	O
ATOM	1436	CG2	THR	B	209	6.236	-67.869	2.768	1	60.72	B	C
ATOM	1437	C	THR	B	209	7.419	-64.964	5.016	1	54.63	B	C
ATOM	1438	O	THR	B	209	8.321	-64.421	4.409	1	63.72	B	O
ATOM	1439	N	CYS	B	210	6.756	-64.332	5.971	1	43.07	B	N
ATOM	1440	CA	CYS	B	210	7.209	-63.03	6.414	1	48.49	B	C
ATOM	1441	CB	CYS	B	210	6.039	-62.094	6.679	1	49.92	B	C
ATOM	1442	SG	CYS	B	210	6.613	-60.434	7.149	1	66.9	B	S
ATOM	1443	C	CYS	B	210	8.065	-63.107	7.666	1	46.66	B	C
ATOM	1444	O	CYS	B	210	9.156	-62.569	7.7	1	48.31	B	O
ATOM	1445	N	ALA	B	211	7.552	-63.752	8.711	1	52.73	B	N
ATOM	1446	CA	ALA	B	211	8.148	-63.671	10.058	1	49.93	B	C
ATOM	1447	CB	ALA	B	211	7.033	-63.804	11.092	1	55.41	B	C
ATOM	1448	C	ALA	B	211	9.245	-64.705	10.356	1	47.06	B	C
ATOM	1449	O	ALA	B	211	10.049	-64.513	11.272	1	46.57	B	O
ATOM	1450	N	VAL	B	212	9.255	-65.796	9.605	1	41.81	B	N
ATOM	1451	CA	VAL	B	212	10.039	-66.943	9.931	1	46.06	B	C
ATOM	1452	CB	VAL	B	212	9.123	-68.176	10.156	1	46.19	B	C
ATOM	1453	CG1	VAL	B	212	9.953	-69.361	10.62	1	50.47	B	C
ATOM	1454	CG2	VAL	B	212	8.09	-67.873	11.236	1	48.47	B	C
ATOM	1455	C	VAL	B	212	11.145	-67.221	8.894	1	46.16	B	C
ATOM	1456	O	VAL	B	212	12.287	-67.473	9.259	1	46.25	B	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1457	N	ASN	B	213	10.808	-67.222	7.623	1	43.22	B	N
ATOM	1458	CA	ASN	B	213	11.761	-67.621	6.581	1	47.45	B	C
ATOM	1459	CB	ASN	B	213	11.023	-68.281	5.415	1	51.03	B	C
ATOM	1460	CG	ASN	B	213	10.238	-69.509	5.862	1	54.07	B	C
ATOM	1461	OD1	ASN	B	213	10.593	-70.151	6.849	1	71.04	B	O
ATOM	1462	ND2	ASN	B	213	9.15	-69.8	5.182	1	59.22	B	N
ATOM	1463	C	ASN	B	213	12.493	-66.4	6.108	1	44.58	B	C
ATOM	1464	O	ASN	B	213	11.878	-65.372	5.933	1	52.29	B	O
ATOM	1465	N	MET	B	214	13.804	-66.515	5.942	1	44.41	B	N
ATOM	1466	CA	MET	B	214	14.648	-65.436	5.451	1	47.37	B	C
ATOM	1467	CB	MET	B	214	15.526	-64.867	6.569	1	54.35	B	C
ATOM	1468	CG	MET	B	214	14.767	-64.394	7.773	1	61.23	B	C
ATOM	1469	SD	MET	B	214	13.69	-63.064	7.235	1	71.27	B	S
ATOM	1470	CE	MET	B	214	12.336	-63.241	8.402	1	76.54	B	C
ATOM	1471	C	MET	B	214	15.559	-66.004	4.409	1	41.8	B	C
ATOM	1472	O	MET	B	214	15.947	-67.185	4.505	1	42.11	B	O
ATOM	1473	N	VAL	B	215	15.952	-65.16	3.455	1	38.97	B	N
ATOM	1474	CA	VAL	B	215	17.019	-65.527	2.509	1	39.26	B	C
ATOM	1475	CB	VAL	B	215	16.545	-65.327	1.033	1	37.45	B	C
ATOM	1476	CG1	VAL	B	215	17.626	-65.773	0.049	1	35.85	B	C
ATOM	1477	CG2	VAL	B	215	15.246	-66.088	0.784	1	38.92	B	C
ATOM	1478	C	VAL	B	215	18.299	-64.714	2.783	1	39.17	B	C
ATOM	1479	O	VAL	B	215	18.308	-63.499	2.56	1	40.63	B	O
ATOM	1480	N	PRO	B	216	19.374	-65.329	3.261	1	40.45	B	N
ATOM	1481	CA	PRO	B	216	19.405	-66.651	3.881	1	39.85	B	C
ATOM	1482	CB	PRO	B	216	20.894	-66.996	3.9	1	39.29	B	C
ATOM	1483	CG	PRO	B	216	21.562	-65.661	4.029	1	38.91	B	C
ATOM	1484	CD	PRO	B	216	20.696	-64.665	3.305	1	38.69	B	C
ATOM	1485	C	PRO	B	216	18.943	-66.55	5.312	1	38.35	B	C
ATOM	1486	O	PRO	B	216	18.862	-65.42	5.843	1	35.46	B	O
ATOM	1487	N	PRO	B	217	18.659	-67.707	5.936	1	37.06	B	N
ATOM	1488	CA	PRO	B	217	18.389	-67.725	7.346	1	41.55	B	C
ATOM	1489	CB	PRO	B	217	18.232	-69.217	7.678	1	40.56	B	C
ATOM	1490	CG	PRO	B	217	18.018	-69.895	6.383	1	37.84	B	C
ATOM	1491	CD	PRO	B	217	18.758	-69.073	5.388	1	39.17	B	C
ATOM	1492	C	PRO	B	217	19.576	-67.195	8.101	1	41.29	B	C
ATOM	1493	O	PRO	B	217	20.685	-67.537	7.786	1	42.44	B	O
ATOM	1494	N	PRO	B	218	19.352	-66.357	9.101	1	42.2	B	N
ATOM	1495	CA	PRO	B	218	20.5	-66.017	9.964	1	42.35	B	C
ATOM	1496	CB	PRO	B	218	19.912	-65.029	10.934	1	39.93	B	C
ATOM	1497	CG	PRO	B	218	18.498	-65.42	11.034	1	43.97	B	C
ATOM	1498	CD	PRO	B	218	18.084	-65.897	9.662	1	43.63	B	C
ATOM	1499	C	PRO	B	218	21.066	-67.226	10.733	1	38.6	B	C
ATOM	1500	O	PRO	B	218	20.371	-68.194	10.957	1	38.82	B	O
ATOM	1501	N	THR	B	219	22.315	-67.153	11.155	1	41.75	B	N
ATOM	1502	CA	THR	B	219	22.804	-68.159	12.132	1	48.26	B	C
ATOM	1503	CB	THR	B	219	24.3	-68.045	12.45	1	47.5	B	C
ATOM	1504	OG1	THR	B	219	24.478	-66.901	13.295	1	53.94	B	O
ATOM	1505	CG2	THR	B	219	25.161	-67.94	11.171	1	49.45	B	C
ATOM	1506	C	THR	B	219	22.073	-67.969	13.491	1	44.27	B	C
ATOM	1507	O	THR	B	219	21.701	-66.849	13.879	1	40.81	B	O
ATOM	1508	N	CYS	B	220	21.874	-69.057	14.204	1	43.12	B	N
ATOM	1509	CA	CYS	B	220	21.302	-68.984	15.564	1	49.09	B	C
ATOM	1510	CB	CYS	B	220	21.106	-70.392	16.123	1	49.08	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1511	SG	CYS	B	220	20.04	-71.439	15.065	1	52.72	B	S
ATOM	1512	C	CYS	B	220	22.135	-68.088	16.528	1	49.31	B	C
ATOM	1513	O	CYS	B	220	21.556	-67.36	17.341	1	46.31	B	O
ATOM	1514	N	LEU	B	221	23.464	-68.076	16.382	1	47.69	B	N
ATOM	1515	CA	LEU	B	221	24.304	-67.158	17.153	1	51.5	B	C
ATOM	1516	CB	LEU	B	221	25.778	-67.328	16.787	1	54.75	B	C
ATOM	1517	CG	LEU	B	221	26.424	-68.698	17.048	1	61.07	B	C
ATOM	1518	CD1	LEU	B	221	27.93	-68.535	17.101	1	67.76	B	C
ATOM	1519	CD2	LEU	B	221	25.975	-69.387	18.32	1	62.43	B	C
ATOM	1520	C	LEU	B	221	23.922	-65.703	16.896	1	53.46	B	C
ATOM	1521	O	LEU	B	221	23.772	-64.88	17.819	1	51.1	B	O
ATOM	1522	N	SER	B	222	23.766	-65.399	15.619	1	47.09	B	N
ATOM	1523	CA	SER	B	222	23.421	-64.074	15.204	1	49.79	B	C
ATOM	1524	CB	SER	B	222	23.438	-64.03	13.687	1	51.28	B	C
ATOM	1525	OG	SER	B	222	23.087	-62.738	13.252	1	62.16	B	O
ATOM	1526	C	SER	B	222	22.04	-63.682	15.757	1	55.49	B	C
ATOM	1527	O	SER	B	222	21.797	-62.517	16.099	1	48.23	B	O
ATOM	1528	N	VAL	B	223	21.151	-64.675	15.854	1	51.98	B	N
ATOM	1529	CA	VAL	B	223	19.821	-64.478	16.411	1	55.43	B	C
ATOM	1530	CB	VAL	B	223	18.917	-65.72	16.133	1	54.4	B	C
ATOM	1531	CG1	VAL	B	223	17.837	-65.912	17.204	1	52.12	B	C
ATOM	1532	CG2	VAL	B	223	18.313	-65.608	14.726	1	54.49	B	C
ATOM	1533	C	VAL	B	223	19.863	-64.13	17.909	1	51.19	B	C
ATOM	1534	O	VAL	B	223	19.207	-63.179	18.359	1	50.51	B	O
ATOM	1535	N	ILE	B	224	20.586	-64.918	18.679	1	50.34	B	N
ATOM	1536	CA	ILE	B	224	20.663	-64.651	20.118	1	57.69	B	C
ATOM	1537	CB	ILE	B	224	21.334	-65.782	20.905	1	57.66	B	C
ATOM	1538	CG1	ILE	B	224	20.28	-66.826	21.232	1	58.47	B	C
ATOM	1539	CD1	ILE	B	224	20.151	-67.791	20.122	1	62.49	B	C
ATOM	1540	CG2	ILE	B	224	21.931	-65.295	22.222	1	60.62	B	C
ATOM	1541	C	ILE	B	224	21.321	-63.305	20.391	1	55.25	B	C
ATOM	1542	O	ILE	B	224	20.786	-62.52	21.148	1	52.45	B	O
ATOM	1543	N	ARG	B	225	22.43	-63.037	19.727	1	57.04	B	N
ATOM	1544	CA	ARG	B	225	23.126	-61.775	19.926	1	61.8	B	C
ATOM	1545	CB	ARG	B	225	24.487	-61.757	19.218	1	62.73	B	C
ATOM	1546	CG	ARG	B	225	25.489	-62.614	20.002	1	66.98	B	C
ATOM	1547	CD	ARG	B	225	26.751	-62.946	19.243	1	69.61	B	C
ATOM	1548	NE	ARG	B	225	27.349	-64.187	19.728	1	73.27	B	N
ATOM	1549	CZ	ARG	B	225	28.253	-64.909	19.061	1	76.17	B	C
ATOM	1550	NH1	ARG	B	225	28.733	-66.015	19.606	1	75.26	B	N
ATOM	1551	NH2	ARG	B	225	28.682	-64.545	17.854	1	79.05	B	N
ATOM	1552	C	ARG	B	225	22.275	-60.593	19.578	1	58.51	B	C
ATOM	1553	O	ARG	B	225	22.108	-59.697	20.406	1	62.26	B	O
ATOM	1554	N	SER	B	226	21.676	-60.616	18.397	1	60.94	B	N
ATOM	1555	CA	SER	B	226	20.847	-59.488	17.941	1	57.22	B	C
ATOM	1556	CB	SER	B	226	20.294	-59.778	16.534	1	57.35	B	C
ATOM	1557	OG	SER	B	226	19.201	-58.933	16.231	1	63.61	B	O
ATOM	1558	C	SER	B	226	19.731	-59.193	18.971	1	55.74	B	C
ATOM	1559	O	SER	B	226	19.383	-58.041	19.226	1	56.31	B	O
ATOM	1560	N	CYS	B	227	19.217	-60.25	19.587	1	50.68	B	N
ATOM	1561	CA	CYS	B	227	18.222	-60.127	20.634	1	57.7	B	C
ATOM	1562	CB	CYS	B	227	17.735	-61.513	21.054	1	55	B	C
ATOM	1563	SG	CYS	B	227	16.422	-61.442	22.266	1	59.65	B	S
ATOM	1564	C	CYS	B	227	18.763	-59.421	21.872	1	60.4	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1565	O	CYS	B	227	18.096	-58.535	22.419	1	59.19	B	O
ATOM	1566	N	GLN	B	228	19.96	-59.834	22.303	1	59.75	B	N
ATOM	1567	CA	GLN	B	228	20.642	-59.216	23.466	1	63.98	B	C
ATOM	1568	CB	GLN	B	228	22.051	-59.764	23.75	1	65.86	B	C
ATOM	1569	CG	GLN	B	228	22.346	-61.271	23.698	1	71.33	B	C
ATOM	1570	CD	GLN	B	228	21.696	-62.106	24.79	1	72.08	B	C
ATOM	1571	OE1	GLN	B	228	20.603	-61.783	25.265	1	75.94	B	O
ATOM	1572	NE2	GLN	B	228	22.363	-63.217	25.177	1	68.73	B	N
ATOM	1573	C	GLN	B	228	20.788	-57.699	23.296	1	65.31	B	C
ATOM	1574	O	GLN	B	228	20.733	-56.984	24.288	1	63.24	B	O
ATOM	1575	N	ASN	B	229	20.96	-57.217	22.057	1	64.32	B	N
ATOM	1576	CA	ASN	B	229	21.12	-55.763	21.785	1	66.24	B	C
ATOM	1577	CB	ASN	B	229	21.998	-55.507	20.547	1	66.43	B	C
ATOM	1578	CG	ASN	B	229	23.294	-56.284	20.574	1	72.5	B	C
ATOM	1579	OD1	ASN	B	229	23.814	-56.62	21.643	1	78.79	B	O
ATOM	1580	ND2	ASN	B	229	23.82	-56.59	19.39	1	76.78	B	N
ATOM	1581	C	ASN	B	229	19.832	-54.981	21.595	1	60.27	B	C
ATOM	1582	O	ASN	B	229	19.895	-53.845	21.181	1	61.72	B	O
ATOM	1583	N	ASP	B	230	18.678	-55.58	21.851	1	64.23	B	N
ATOM	1584	CA	ASP	B	230	17.404	-54.854	21.818	1	69.88	B	C
ATOM	1585	CB	ASP	B	230	16.466	-55.5	20.789	1	70.79	B	C
ATOM	1586	CG	ASP	B	230	15.059	-54.94	20.855	1	69.9	B	C
ATOM	1587	OD1	ASP	B	230	14.886	-53.817	20.378	1	75.3	B	O
ATOM	1588	OD2	ASP	B	230	14.131	-55.598	21.395	1	68.56	B	O
ATOM	1589	C	ASP	B	230	16.794	-54.926	23.215	1	73.46	B	C
ATOM	1590	O	ASP	B	230	16.878	-55.983	23.856	1	72.37	B	O
ATOM	1591	N	GLU	B	231	16.172	-53.826	23.672	1	77.53	B	N
ATOM	1592	CA	GLU	B	231	15.547	-53.759	25.023	1	78.12	B	C
ATOM	1593	CB	GLU	B	231	14.932	-52.38	25.282	1	82.98	B	C
ATOM	1594	CG	GLU	B	231	15.89	-51.354	25.879	1	98.09	B	C
ATOM	1595	CD	GLU	B	231	15.236	-50.505	26.963	1	101.71	B	C
ATOM	1596	OE1	GLU	B	231	14.782	-51.09	27.967	1	96.89	B	O
ATOM	1597	OE2	GLU	B	231	15.179	-49.261	26.817	1	101.61	B	O
ATOM	1598	C	GLU	B	231	14.465	-54.831	25.304	1	74.28	B	C
ATOM	1599	O	GLU	B	231	14.634	-55.702	26.184	1	63.5	B	O
ATOM	1600	N	LEU	B	232	13.371	-54.755	24.549	1	63.39	B	N
ATOM	1601	CA	LEU	B	232	12.25	-55.673	24.695	1	61.1	B	C
ATOM	1602	CB	LEU	B	232	11.137	-55.247	23.727	1	65.21	B	C
ATOM	1603	CG	LEU	B	232	9.772	-55.957	23.686	1	71.8	B	C
ATOM	1604	CD1	LEU	B	232	8.72	-54.963	23.21	1	72.13	B	C
ATOM	1605	CD2	LEU	B	232	9.758	-57.201	22.785	1	71.7	B	C
ATOM	1606	C	LEU	B	232	12.673	-57.145	24.473	1	59.97	B	C
ATOM	1607	O	LEU	B	232	12.348	-58.022	25.288	1	63.34	B	O
ATOM	1608	N	CYS	B	233	13.414	-57.418	23.398	1	56.46	B	N
ATOM	1609	CA	CYS	B	233	13.854	-58.79	23.132	1	56.16	B	C
ATOM	1610	CB	CYS	B	233	14.601	-58.933	21.793	1	52.64	B	C
ATOM	1611	SG	CYS	B	233	14.738	-60.677	21.271	1	55.85	B	S
ATOM	1612	C	CYS	B	233	14.697	-59.373	24.294	1	58.07	B	C
ATOM	1613	O	CYS	B	233	14.414	-60.498	24.75	1	52.08	B	O
ATOM	1614	N	ARG	B	234	15.705	-58.618	24.76	1	58.38	B	N
ATOM	1615	CA	ARG	B	234	16.612	-59.075	25.847	1	59.04	B	C
ATOM	1616	CB	ARG	B	234	17.627	-57.989	26.223	1	63.8	B	C
ATOM	1617	CG	ARG	B	234	18.612	-58.327	27.364	1	69.14	B	C
ATOM	1618	CD	ARG	B	234	19.167	-57.049	27.998	1	72.12	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1619	NE	ARG	B	234	19.563	-56.118	26.928	1	79.05	B	N
ATOM	1620	CZ	ARG	B	234	19.202	-54.837	26.781	1	75.36	B	C
ATOM	1621	NH1	ARG	B	234	19.661	-54.16	25.727	1	73.44	B	N
ATOM	1622	NH2	ARG	B	234	18.423	-54.206	27.663	1	76.39	B	N
ATOM	1623	C	ARG	B	234	15.806	-59.484	27.071	1	60.41	B	C
ATOM	1624	O	ARG	B	234	15.963	-60.61	27.582	1	57.03	B	O
ATOM	1625	N	ARG	B	235	14.9	-58.612	27.505	1	57.02	B	N
ATOM	1626	CA	ARG	B	235	14.072	-58.951	28.659	1	66.3	B	C
ATOM	1627	CB	ARG	B	235	13.117	-57.813	29.008	1	79.61	B	C
ATOM	1628	CG	ARG	B	235	13.789	-56.674	29.763	1	89.89	B	C
ATOM	1629	CD	ARG	B	235	13.247	-55.328	29.318	1	94.35	B	C
ATOM	1630	NE	ARG	B	235	13.547	-54.263	30.267	1	102.33	B	N
ATOM	1631	CZ	ARG	B	235	13.286	-52.969	30.069	1	103.92	B	C
ATOM	1632	NH1	ARG	B	235	12.727	-52.54	28.929	1	97.07	B	N
ATOM	1633	NH2	ARG	B	235	13.594	-52.088	31.022	1	97.99	B	N
ATOM	1634	C	ARG	B	235	13.284	-60.221	28.416	1	61.7	B	C
ATOM	1635	O	ARG	B	235	13.244	-61.102	29.271	1	57.45	B	O
ATOM	1636	N	HIS	B	236	12.674	-60.325	27.235	1	57.83	B	N
ATOM	1637	CA	HIS	B	236	11.803	-61.466	26.965	1	52.2	B	C
ATOM	1638	CB	HIS	B	236	10.859	-61.186	25.776	1	57.98	B	C
ATOM	1639	CG	HIS	B	236	9.747	-60.261	26.139	1	63.41	B	C
ATOM	1640	ND1	HIS	B	236	9.722	-58.938	25.761	1	71.46	B	N
ATOM	1641	CE1	HIS	B	236	8.648	-58.357	26.265	1	69.43	B	C
ATOM	1642	NE2	HIS	B	236	8	-59.246	26.994	1	76.52	B	N
ATOM	1643	CD2	HIS	B	236	8.676	-60.441	26.943	1	73.54	B	C
ATOM	1644	C	HIS	B	236	12.594	-62.747	26.817	1	43.46	B	C
ATOM	1645	O	HIS	B	236	12.14	-63.785	27.237	1	39.42	B	O
ATOM	1646	N	TYR	B	237	13.791	-62.666	26.24	1	44.69	B	N
ATOM	1647	CA	TYR	B	237	14.661	-63.827	26.188	1	48.16	B	C
ATOM	1648	CB	TYR	B	237	15.941	-63.544	25.389	1	43.81	B	C
ATOM	1649	CG	TYR	B	237	16.795	-64.789	25.305	1	50.24	B	C
ATOM	1650	CD1	TYR	B	237	16.295	-65.953	24.695	1	48.61	B	C
ATOM	1651	CE1	TYR	B	237	17.06	-67.116	24.635	1	51.92	B	C
ATOM	1652	CZ	TYR	B	237	18.34	-67.14	25.21	1	53.26	B	C
ATOM	1653	OH	TYR	B	237	19.075	-68.316	25.154	1	60.59	B	O
ATOM	1654	CE2	TYR	B	237	18.846	-66.011	25.841	1	50.02	B	C
ATOM	1655	CD2	TYR	B	237	18.084	-64.84	25.887	1	50.95	B	C
ATOM	1656	C	TYR	B	237	14.993	-64.3	27.623	1	50.61	B	C
ATOM	1657	O	TYR	B	237	14.859	-65.503	27.948	1	45.82	B	O
ATOM	1658	N	ARG	B	238	15.373	-63.34	28.476	1	52.59	B	N
ATOM	1659	CA	ARG	B	238	15.795	-63.625	29.866	1	52.11	B	C
ATOM	1660	CB	ARG	B	238	16.094	-62.309	30.606	1	57.58	B	C
ATOM	1661	CG	ARG	B	238	16.975	-62.4	31.867	1	70.39	B	C
ATOM	1662	CD	ARG	B	238	18.068	-61.316	31.891	1	76.46	B	C
ATOM	1663	NE	ARG	B	238	17.553	-59.937	31.755	1	84.04	B	N
ATOM	1664	CZ	ARG	B	238	18.248	-58.876	31.302	1	92.92	B	C
ATOM	1665	NH1	ARG	B	238	17.66	-57.673	31.238	1	89.77	B	N
ATOM	1666	NH2	ARG	B	238	19.522	-58.989	30.898	1	92.96	B	N
ATOM	1667	C	ARG	B	238	14.697	-64.428	30.55	1	50.23	B	C
ATOM	1668	O	ARG	B	238	14.95	-65.515	31.085	1	50.31	B	O
ATOM	1669	N	THR	B	239	13.462	-63.924	30.48	1	45.71	B	N
ATOM	1670	CA	THR	B	239	12.336	-64.608	31.089	1	44.91	B	C
ATOM	1671	CB	THR	B	239	11.055	-63.823	30.876	1	48.93	B	C
ATOM	1672	OG1	THR	B	239	11.294	-62.457	31.197	1	54.27	B	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1673	CG2	THR	B	239	9.904	-64.371	31.712	1	47.59	B	C
ATOM	1674	C	THR	B	239	12.138	-65.986	30.498	1	54.66	B	C
ATOM	1675	O	THR	B	239	11.867	-66.967	31.233	1	56.96	B	O
ATOM	1676	N	PHE	B	240	12.242	-66.046	29.165	1	48.48	B	N
ATOM	1677	CA	PHE	B	240	12.064	-67.27	28.451	1	47.12	B	C
ATOM	1678	CB	PHE	B	240	12.255	-67.039	26.945	1	47.04	B	C
ATOM	1679	CG	PHE	B	240	12.375	-68.308	26.141	1	44.93	B	C
ATOM	1680	CD1	PHE	B	240	11.29	-69.162	26.013	1	43.59	B	C
ATOM	1681	CE1	PHE	B	240	11.376	-70.317	25.235	1	46.67	B	C
ATOM	1682	CZ	PHE	B	240	12.555	-70.63	24.592	1	47.72	B	C
ATOM	1683	CE2	PHE	B	240	13.649	-69.78	24.717	1	46.71	B	C
ATOM	1684	CD2	PHE	B	240	13.559	-68.634	25.493	1	44.77	B	C
ATOM	1685	C	PHE	B	240	13.02	-68.333	28.935	1	46.87	B	C
ATOM	1686	O	PHE	B	240	12.609	-69.47	29.203	1	47.31	B	O
ATOM	1687	N	GLN	B	241	14.296	-67.959	28.957	1	49.9	B	N
ATOM	1688	CA	GLN	B	241	15.378	-68.788	29.52	1	56.37	B	C
ATOM	1689	CB	GLN	B	241	16.703	-68.026	29.52	1	58.66	B	C
ATOM	1690	CG	GLN	B	241	17.413	-68.01	28.183	1	70.29	B	C
ATOM	1691	CD	GLN	B	241	17.812	-69.391	27.723	1	80.28	B	C
ATOM	1692	OE1	GLN	B	241	17.539	-69.808	26.565	1	79.86	B	O
ATOM	1693	NE2	GLN	B	241	18.451	-70.126	28.624	1	82.86	B	N
ATOM	1694	C	GLN	B	241	15.107	-69.272	30.937	1	52.32	B	C
ATOM	1695	O	GLN	B	241	15.297	-70.445	31.234	1	50.25	B	O
ATOM	1696	N	SER	B	242	14.686	-68.358	31.799	1	55.28	B	N
ATOM	1697	CA	SER	B	242	14.368	-68.708	33.173	1	65.14	B	C
ATOM	1698	CB	SER	B	242	13.923	-67.476	33.962	1	65.22	B	C
ATOM	1699	OG	SER	B	242	14.894	-66.471	33.845	1	65.15	B	O
ATOM	1700	C	SER	B	242	13.295	-69.799	33.256	1	69.35	B	C
ATOM	1701	O	SER	B	242	13.487	-70.799	33.947	1	77.41	B	O
ATOM	1702	N	LYS	B	243	12.194	-69.634	32.527	1	64.41	B	N
ATOM	1703	CA	LYS	B	243	11.041	-70.506	32.725	1	59.29	B	C
ATOM	1704	CB	LYS	B	243	9.74	-69.744	32.433	1	66.22	B	C
ATOM	1705	CG	LYS	B	243	9.51	-68.509	33.308	1	73.5	B	C
ATOM	1706	CD	LYS	B	243	9.562	-68.863	34.808	1	78.23	B	C
ATOM	1707	CE	LYS	B	243	9.345	-67.666	35.722	1	86.66	B	C
ATOM	1708	NZ	LYS	B	243	8.068	-67.796	36.483	1	96.67	B	N
ATOM	1709	C	LYS	B	243	11.114	-71.799	31.946	1	56.26	B	C
ATOM	1710	O	LYS	B	243	10.514	-72.787	32.332	1	62.26	B	O
ATOM	1711	N	CYS	B	244	11.844	-71.806	30.847	1	55.61	B	N
ATOM	1712	CA	CYS	B	244	11.888	-72.974	29.975	1	56.53	B	C
ATOM	1713	CB	CYS	B	244	11.679	-72.529	28.494	1	59.59	B	C
ATOM	1714	SG	CYS	B	244	10.05	-71.723	28.183	1	59.79	B	S
ATOM	1715	C	CYS	B	244	13.183	-73.757	30.195	1	53.86	B	C
ATOM	1716	O	CYS	B	244	13.188	-74.98	30.138	1	56.54	B	O
ATOM	1717	N	TRP	B	245	14.281	-73.042	30.441	1	54.71	B	N
ATOM	1718	CA	TRP	B	245	15.603	-73.621	30.514	1	55.17	B	C
ATOM	1719	CB	TRP	B	245	16.394	-73.139	29.301	1	54.2	B	C
ATOM	1720	CG	TRP	B	245	15.687	-73.481	28.011	1	52.88	B	C
ATOM	1721	CD1	TRP	B	245	14.96	-72.621	27.223	1	53.79	B	C
ATOM	1722	NE1	TRP	B	245	14.446	-73.292	26.136	1	52.15	B	N
ATOM	1723	CE2	TRP	B	245	14.826	-74.607	26.194	1	50.77	B	C
ATOM	1724	CD2	TRP	B	245	15.61	-74.772	27.366	1	51.74	B	C
ATOM	1725	CE3	TRP	B	245	16.121	-76.051	27.666	1	52.06	B	C
ATOM	1726	CZ3	TRP	B	245	15.842	-77.114	26.79	1	50.59	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1727	CH2	TRP	B	245	15.051	-76.917	25.647	1	53.71	B	C
ATOM	1728	CZ2	TRP	B	245	14.524	-75.671	25.338	1	51.5	B	C
ATOM	1729	C	TRP	B	245	16.235	-73.242	31.881	1	57.41	B	C
ATOM	1730	O	TRP	B	245	17.279	-72.583	31.951	1	60.76	B	O
ATOM	1731	N	GLN	B	246	15.547	-73.651	32.96	1	61.29	B	N
ATOM	1732	CA	GLN	B	246	15.959	-73.382	34.354	1	64.61	B	C
ATOM	1733	CB	GLN	B	246	15.007	-74.083	35.34	1	73.7	B	C
ATOM	1734	CG	GLN	B	246	15.251	-73.768	36.824	1	87.61	B	C
ATOM	1735	CD	GLN	B	246	15.382	-75.022	37.712	1	99.98	B	C
ATOM	1736	OE1	GLN	B	246	16.305	-75.844	37.543	1	96.3	B	O
ATOM	1737	NE2	GLN	B	246	14.468	-75.163	38.679	1	101.16	B	N
ATOM	1738	C	GLN	B	246	17.408	-73.829	34.617	1	56.51	B	C
ATOM	1739	O	GLN	B	246	18.2	-73.047	35.145	1	57.89	B	O
ATOM	1740	N	ARG	B	247	17.748	-75.057	34.207	1	50.96	B	N
ATOM	1741	CA	ARG	B	247	19.061	-75.622	34.458	1	53.72	B	C
ATOM	1742	CB	ARG	B	247	19.175	-77.065	34.011	1	61.5	B	C
ATOM	1743	CG	ARG	B	247	18.144	-78.036	34.586	1	72.17	B	C
ATOM	1744	CD	ARG	B	247	18.741	-79.447	34.651	1	82.68	B	C
ATOM	1745	NE	ARG	B	247	17.838	-80.547	34.304	1	85.52	B	N
ATOM	1746	CZ	ARG	B	247	16.83	-80.995	35.059	1	92.61	B	C
ATOM	1747	NH1	ARG	B	247	16.511	-80.401	36.216	1	91.54	B	N
ATOM	1748	NH2	ARG	B	247	16.108	-82.037	34.634	1	88.8	B	N
ATOM	1749	C	ARG	B	247	20.126	-74.852	33.739	1	57.77	B	C
ATOM	1750	O	ARG	B	247	21.212	-74.678	34.26	1	58.43	B	O
ATOM	1751	N	VAL	B	248	19.819	-74.4	32.526	1	57.32	B	N
ATOM	1752	CA	VAL	B	248	20.779	-73.626	31.736	1	55.31	B	C
ATOM	1753	CB	VAL	B	248	20.286	-73.388	30.276	1	55.38	B	C
ATOM	1754	CG1	VAL	B	248	21.155	-72.369	29.537	1	52.27	B	C
ATOM	1755	CG2	VAL	B	248	20.237	-74.698	29.507	1	55.65	B	C
ATOM	1756	C	VAL	B	248	21.006	-72.292	32.409	1	51.1	B	C
ATOM	1757	O	VAL	B	248	22.143	-71.813	32.502	1	49.02	B	O
ATOM	1758	N	THR	B	249	19.923	-71.669	32.843	1	48.56	B	N
ATOM	1759	CA	THR	B	249	20.045	-70.334	33.44	1	54.69	B	C
ATOM	1760	CB	THR	B	249	18.664	-69.713	33.67	1	52.47	B	C
ATOM	1761	OG1	THR	B	249	18.017	-69.582	32.397	1	56.62	B	O
ATOM	1762	CG2	THR	B	249	18.779	-68.352	34.334	1	55.42	B	C
ATOM	1763	C	THR	B	249	20.832	-70.395	34.767	1	61.51	B	C
ATOM	1764	O	THR	B	249	21.72	-69.568	34.994	1	63.58	B	O
ATOM	1765	N	ARG	B	250	20.519	-71.382	35.613	1	61.06	B	N
ATOM	1766	CA	ARG	B	250	21.153	-71.466	36.916	1	64.92	B	C
ATOM	1767	CB	ARG	B	250	20.343	-72.35	37.872	1	69.17	B	C
ATOM	1768	CG	ARG	B	250	20.491	-73.879	37.81	1	75.94	B	C
ATOM	1769	CD	ARG	B	250	19.602	-74.516	38.902	1	85.03	B	C
ATOM	1770	NE	ARG	B	250	18.44	-73.638	39.171	1	90.33	B	N
ATOM	1771	CZ	ARG	B	250	17.775	-73.5	40.321	1	86.23	B	C
ATOM	1772	NH1	ARG	B	250	18.041	-74.247	41.389	1	83.37	B	N
ATOM	1773	NH2	ARG	B	250	16.784	-72.605	40.379	1	85.47	B	N
ATOM	1774	C	ARG	B	250	22.633	-71.859	36.799	1	63.15	B	C
ATOM	1775	O	ARG	B	250	23.457	-71.359	37.548	1	58.93	B	O
ATOM	1776	N	LYS	B	251	22.97	-72.693	35.817	1	64.02	B	N
ATOM	1777	CA	LYS	B	251	24.343	-73.147	35.637	1	58.66	B	C
ATOM	1778	CB	LYS	B	251	24.391	-74.411	34.797	1	65.94	B	C
ATOM	1779	CG	LYS	B	251	25.216	-75.515	35.403	1	79.06	B	C
ATOM	1780	CD	LYS	B	251	24.376	-76.332	36.386	1	82.06	B	C

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ATOM	1781	CE	LYS	B	251	23.651	-77.463	35.676	1	86	B	C
ATOM	1782	NZ	LYS	B	251	24.621	-78.449	35.127	1	84.52	B	N
ATOM	1783	C	LYS	B	251	25.187	-72.068	34.963	1	58.16	B	C
ATOM	1784	O	LYS	B	251	26.35	-71.885	35.308	1	52.69	B	O
ATOM	1785	N	CYS	B	252	24.618	-71.351	33.988	1	61.02	B	N
ATOM	1786	CA	CYS	B	252	25.448	-70.532	33.101	1	59.85	B	C
ATOM	1787	CB	CYS	B	252	25.4	-71.051	31.67	1	59.08	B	C
ATOM	1788	SG	CYS	B	252	26.086	-72.703	31.512	1	65.84	B	S
ATOM	1789	C	CYS	B	252	25.167	-69.073	33.086	1	56.69	B	C
ATOM	1790	O	CYS	B	252	26.07	-68.335	32.766	1	57.83	B	O
ATOM	1791	N	HIS	B	253	23.952	-68.665	33.446	1	62.28	B	N
ATOM	1792	CA	HIS	B	253	23.429	-67.329	33.121	1	69.15	B	C
ATOM	1793	CB	HIS	B	253	24.04	-66.277	34.053	1	70.3	B	C
ATOM	1794	CG	HIS	B	253	23.658	-66.509	35.482	1	83.02	B	C
ATOM	1795	ND1	HIS	B	253	22.354	-66.386	35.927	1	87.63	B	N
ATOM	1796	CE1	HIS	B	253	22.299	-66.707	37.206	1	85.12	B	C
ATOM	1797	NE2	HIS	B	253	23.509	-67.068	37.597	1	80.07	B	N
ATOM	1798	CD2	HIS	B	253	24.375	-66.965	36.537	1	77.72	B	C
ATOM	1799	C	HIS	B	253	23.501	-67.031	31.603	1	71.88	B	C
ATOM	1800	O	HIS	B	253	22.916	-67.79	30.817	1	66.3	B	O
ATOM	1801	N	GLU	B	254	24.207	-65.985	31.185	1	77.82	B	N
ATOM	1802	CA	GLU	B	254	24.321	-65.654	29.764	1	79	B	C
ATOM	1803	CB	GLU	B	254	23.894	-64.189	29.569	1	85.87	B	C
ATOM	1804	CG	GLU	B	254	22.391	-63.98	29.826	1	92.05	B	C
ATOM	1805	CD	GLU	B	254	21.966	-62.524	30.038	1	102.75	B	C
ATOM	1806	OE1	GLU	B	254	22.759	-61.716	30.569	1	101.46	B	O
ATOM	1807	OE2	GLU	B	254	20.808	-62.184	29.7	1	102.92	B	O
ATOM	1808	C	GLU	B	254	25.734	-65.96	29.217	1	78.28	B	C
ATOM	1809	O	GLU	B	254	26.071	-65.593	28.1	1	80.04	B	O
ATOM	1810	N	ASP	B	255	26.541	-66.689	29.989	1	79.32	B	N
ATOM	1811	CA	ASP	B	255	27.914	-67.011	29.604	1	77.89	B	C
ATOM	1812	CB	ASP	B	255	28.718	-67.492	30.817	1	80.03	B	C
ATOM	1813	CG	ASP	B	255	30.196	-67.675	30.514	1	78.48	B	C
ATOM	1814	OD1	ASP	B	255	30.56	-68.574	29.724	1	70.82	B	O
ATOM	1815	OD2	ASP	B	255	31.004	-66.93	31.092	1	86.82	B	O
ATOM	1816	C	ASP	B	255	27.917	-68.073	28.501	1	71.22	B	C
ATOM	1817	O	ASP	B	255	27.624	-69.284	28.743	1	58.47	B	O
ATOM	1818	N	GLU	B	256	28.286	-67.61	27.307	1	64.05	B	N
ATOM	1819	CA	GLU	B	256	28.216	-68.428	26.093	1	63.27	B	C
ATOM	1820	CB	GLU	B	256	28.523	-67.588	24.849	1	66.56	B	C
ATOM	1821	CG	GLU	B	256	27.55	-66.427	24.619	1	66.96	B	C
ATOM	1822	CD	GLU	B	256	27.536	-65.894	23.181	1	72.02	B	C
ATOM	1823	OE1	GLU	B	256	26.817	-64.901	22.892	1	69.46	B	O
ATOM	1824	OE2	GLU	B	256	28.229	-66.468	22.323	1	66.55	B	O
ATOM	1825	C	GLU	B	256	29.127	-69.649	26.187	1	61.08	B	C
ATOM	1826	O	GLU	B	256	28.695	-70.767	25.874	1	54.96	B	O
ATOM	1827	N	ASN	B	257	30.337	-69.441	26.715	1	60.82	B	N
ATOM	1828	CA	ASN	B	257	31.34	-70.526	26.936	1	67.28	B	C
ATOM	1829	CB	ASN	B	257	32.646	-69.949	27.501	1	74.03	B	C
ATOM	1830	CG	ASN	B	257	32.968	-68.566	26.94	1	83.48	B	C
ATOM	1831	OD1	ASN	B	257	32.145	-67.637	27.037	1	84.17	B	O
ATOM	1832	ND2	ASN	B	257	34.146	-68.419	26.349	1	85.42	B	N
ATOM	1833	C	ASN	B	257	30.844	-71.617	27.877	1	63.6	B	C
ATOM	1834	O	ASN	B	257	30.998	-72.837	27.632	1	59.11	B	O

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ATOM	1835	N	CYS	B	258	30.235	-71.161	28.966	1	62.33	B	N
ATOM	1836	CA	CYS	B	258	29.546	-72.054	29.863	1	61.37	B	C
ATOM	1837	CB	CYS	B	258	28.931	-71.33	31.073	1	63.61	B	C
ATOM	1838	SG	CYS	B	258	28.067	-72.514	32.15	1	67.39	B	S
ATOM	1839	C	CYS	B	258	28.469	-72.756	29.073	1	59.91	B	C
ATOM	1840	O	CYS	B	258	28.398	-73.98	29.125	1	64.46	B	O
ATOM	1841	N	ILE	B	259	27.627	-72	28.346	1	59.37	B	N
ATOM	1842	CA	ILE	B	259	26.481	-72.636	27.633	1	59.51	B	C
ATOM	1843	CB	ILE	B	259	25.542	-71.616	26.926	1	63.22	B	C
ATOM	1844	CG1	ILE	B	259	24.783	-70.796	27.958	1	57.51	B	C
ATOM	1845	CD1	ILE	B	259	24.292	-69.491	27.392	1	57.91	B	C
ATOM	1846	CG2	ILE	B	259	24.504	-72.317	26.027	1	58.36	B	C
ATOM	1847	C	ILE	B	259	26.999	-73.665	26.642	1	52.47	B	C
ATOM	1848	O	ILE	B	259	26.458	-74.758	26.515	1	50.11	B	O
ATOM	1849	N	SER	B	260	28.083	-73.294	25.986	1	56.13	B	N
ATOM	1850	CA	SER	B	260	28.778	-74.135	25.005	1	60.21	B	C
ATOM	1851	CB	SER	B	260	30.068	-73.442	24.564	1	65.3	B	C
ATOM	1852	OG	SER	B	260	31.171	-74.322	24.625	1	74.91	B	O
ATOM	1853	C	SER	B	260	29.128	-75.537	25.428	1	61.1	B	C
ATOM	1854	O	SER	B	260	29.314	-76.38	24.571	1	63.41	B	O
ATOM	1855	N	THR	B	261	29.294	-75.779	26.726	1	71.34	B	N
ATOM	1856	CA	THR	B	261	29.716	-77.103	27.223	1	70.79	B	C
ATOM	1857	CB	THR	B	261	31	-76.973	28.069	1	67.73	B	C
ATOM	1858	OG1	THR	B	261	30.73	-76.145	29.207	1	56.84	B	O
ATOM	1859	CG2	THR	B	261	32.147	-76.384	27.229	1	66.27	B	C
ATOM	1860	C	THR	B	261	28.667	-77.802	28.071	1	71.66	B	C
ATOM	1861	O	THR	B	261	28.992	-78.731	28.805	1	73.46	B	O
ATOM	1862	N	LEU	B	262	27.412	-77.384	27.961	1	71.62	B	N
ATOM	1863	CA	LEU	B	262	26.361	-77.962	28.781	1	71.15	B	C
ATOM	1864	CB	LEU	B	262	25.095	-77.117	28.702	1	71.6	B	C
ATOM	1865	CG	LEU	B	262	25.131	-75.853	29.557	1	73.22	B	C
ATOM	1866	CD1	LEU	B	262	23.891	-75.052	29.227	1	74.93	B	C
ATOM	1867	CD2	LEU	B	262	25.197	-76.16	31.054	1	74.32	B	C
ATOM	1868	C	LEU	B	262	26.058	-79.391	28.369	1	78.93	B	C
ATOM	1869	O	LEU	B	262	26.269	-79.754	27.208	1	75.4	B	O
ATOM	1870	N	SER	B	263	25.557	-80.181	29.329	1	82.51	B	N
ATOM	1871	CA	SER	B	263	25.221	-81.602	29.114	1	86.95	B	C
ATOM	1872	CB	SER	B	263	25.238	-82.391	30.446	1	86.43	B	C
ATOM	1873	OG	SER	B	263	23.973	-82.392	31.116	1	84.17	B	O
ATOM	1874	C	SER	B	263	23.865	-81.765	28.417	1	87.28	B	C
ATOM	1875	O	SER	B	263	23.132	-80.804	28.246	1	78.91	B	O
ATOM	1876	N	LYS	B	264	23.534	-82.995	28.041	1	87.4	B	N
ATOM	1877	CA	LYS	B	264	22.251	-83.281	27.41	1	91.84	B	C
ATOM	1878	CB	LYS	B	264	22.236	-84.697	26.82	1	98.53	B	C
ATOM	1879	CG	LYS	B	264	21.344	-84.849	25.6	1	107.35	B	C
ATOM	1880	CD	LYS	B	264	22.037	-84.35	24.334	1	108.82	B	C
ATOM	1881	CE	LYS	B	264	21.174	-84.597	23.102	1	113.01	B	C
ATOM	1882	NZ	LYS	B	264	21.958	-84.575	21.835	1	111.46	B	N
ATOM	1883	C	LYS	B	264	21.103	-83.121	28.413	1	92.53	B	C
ATOM	1884	O	LYS	B	264	19.987	-82.773	28.025	1	97.03	B	O
ATOM	1885	N	GLN	B	265	21.372	-83.373	29.695	1	87.5	B	N
ATOM	1886	CA	GLN	B	265	20.319	-83.328	30.716	1	91.93	B	C
ATOM	1887	CB	GLN	B	265	20.567	-84.372	31.811	1	103.9	B	C
ATOM	1888	CG	GLN	B	265	20.047	-85.769	31.461	1	111.32	B	C

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ATOM	1889	CD	GLN	B	265	20.77	-86.413	30.274	1	115.42	B	C
ATOM	1890	OE1	GLN	B	265	21.914	-86.87	30.403	1	107.03	B	O
ATOM	1891	NE2	GLN	B	265	20.1	-86.46	29.112	1	116.77	B	N
ATOM	1892	C	GLN	B	265	20.162	-81.929	31.298	1	89.22	B	C
ATOM	1893	O	GLN	B	265	19.119	-81.605	31.884	1	85.25	B	O
ATOM	1894	N	ASP	B	266	21.2	-81.108	31.142	1	86.51	B	N
ATOM	1895	CA	ASP	B	266	21.077	-79.654	31.324	1	86.54	B	C
ATOM	1896	CB	ASP	B	266	22.446	-78.958	31.213	1	88.39	B	C
ATOM	1897	CG	ASP	B	266	23.438	-79.41	32.294	1	91.97	B	C
ATOM	1898	OD1	ASP	B	266	23.021	-79.658	33.458	1	87.29	B	O
ATOM	1899	OD2	ASP	B	266	24.646	-79.508	31.972	1	85.33	B	O
ATOM	1900	C	ASP	B	266	20.098	-79.046	30.304	1	81.55	B	C
ATOM	1901	O	ASP	B	266	19.343	-78.13	30.649	1	75.33	B	O
ATOM	1902	N	LEU	B	267	20.124	-79.564	29.067	1	75.82	B	N
ATOM	1903	CA	LEU	B	267	19.202	-79.16	27.992	1	79.45	B	C
ATOM	1904	CB	LEU	B	267	19.846	-79.346	26.62	1	77.92	B	C
ATOM	1905	CG	LEU	B	267	21.151	-78.609	26.322	1	80.4	B	C
ATOM	1906	CD1	LEU	B	267	21.433	-78.726	24.822	1	80.52	B	C
ATOM	1907	CD2	LEU	B	267	21.137	-77.151	26.771	1	77.32	B	C
ATOM	1908	C	LEU	B	267	17.908	-79.951	28.027	1	74.86	B	C
ATOM	1909	O	LEU	B	267	17.657	-80.773	27.17	1	80.78	B	O
ATOM	1910	N	THR	B	268	17.098	-79.669	29.035	1	74.15	B	N
ATOM	1911	CA	THR	B	268	15.797	-80.288	29.243	1	73.89	B	C
ATOM	1912	CB	THR	B	268	15.883	-81.355	30.361	1	80.45	B	C
ATOM	1913	OG1	THR	B	268	16.199	-82.619	29.764	1	84.66	B	O
ATOM	1914	CG2	THR	B	268	14.579	-81.49	31.179	1	85.35	B	C
ATOM	1915	C	THR	B	268	14.892	-79.124	29.595	1	73.15	B	C
ATOM	1916	O	THR	B	268	15.291	-78.238	30.366	1	70.7	B	O
ATOM	1917	N	CYS	B	269	13.701	-79.107	29.005	1	74.77	B	N
ATOM	1918	CA	CYS	B	269	12.799	-77.959	29.106	1	69.68	B	C
ATOM	1919	CB	CYS	B	269	12.028	-77.717	27.796	1	64	B	C
ATOM	1920	SG	CYS	B	269	11.038	-76.182	27.837	1	70.38	B	S
ATOM	1921	C	CYS	B	269	11.785	-78.211	30.196	1	63.51	B	C
ATOM	1922	O	CYS	B	269	11.292	-79.327	30.313	1	56.37	B	O
ATOM	1923	N	SER	B	270	11.446	-77.165	30.949	1	55.48	B	N
ATOM	1924	CA	SER	B	270	10.246	-77.19	31.781	1	65.92	B	C
ATOM	1925	CB	SER	B	270	10.205	-75.966	32.715	1	66.81	B	C
ATOM	1926	OG	SER	B	270	8.994	-75.232	32.577	1	72.63	B	O
ATOM	1927	C	SER	B	270	8.993	-77.237	30.892	1	78.26	B	C
ATOM	1928	O	SER	B	270	8.793	-76.366	30.035	1	92.88	B	O
ATOM	1929	N	GLY	B	271	8.117	-78.211	31.116	1	83.93	B	N
ATOM	1930	CA	GLY	B	271	6.841	-78.252	30.387	1	80.99	B	C
ATOM	1931	C	GLY	B	271	5.795	-77.252	30.867	1	78	B	C
ATOM	1932	O	GLY	B	271	4.633	-77.365	30.492	1	79.34	B	O
ATOM	1933	N	SER	B	272	6.189	-76.243	31.649	1	78.71	B	N
ATOM	1934	CA	SER	B	272	5.237	-75.512	32.488	1	72.94	B	C
ATOM	1935	CB	SER	B	272	5.956	-74.897	33.677	1	69.32	B	C
ATOM	1936	OG	SER	B	272	6.457	-73.632	33.335	1	66.77	B	O
ATOM	1937	C	SER	B	272	4.488	-74.419	31.73	1	75.15	B	C
ATOM	1938	O	SER	B	272	4.789	-74.119	30.576	1	72.98	B	O
ATOM	1939	N	ASP	B	273	3.509	-73.837	32.409	1	76.08	B	N
ATOM	1940	CA	ASP	B	273	2.65	-72.804	31.847	1	78.69	B	C
ATOM	1941	CB	ASP	B	273	1.37	-72.664	32.675	1	82.12	B	C
ATOM	1942	CG	ASP	B	273	0.475	-73.856	32.54	1	87.81	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1943	OD1	ASP	B	273	-0.169	-73.979	31.476	1	96.56	B	O
ATOM	1944	OD2	ASP	B	273	0.428	-74.671	33.486	1	90.35	B	O
ATOM	1945	C	ASP	B	273	3.337	-71.469	31.808	1	74.03	B	C
ATOM	1946	O	ASP	B	273	3.012	-70.633	30.971	1	73.33	B	O
ATOM	1947	N	ASP	B	274	4.244	-71.243	32.748	1	72.88	B	N
ATOM	1948	CA	ASP	B	274	5.054	-70.033	32.728	1	70.28	B	C
ATOM	1949	CB	ASP	B	274	5.845	-69.898	34.027	1	72.68	B	C
ATOM	1950	CG	ASP	B	274	4.986	-69.494	35.199	1	75.17	B	C
ATOM	1951	OD1	ASP	B	274	3.746	-69.642	35.143	1	75.62	B	O
ATOM	1952	OD2	ASP	B	274	5.575	-69.032	36.2	1	82.45	B	O
ATOM	1953	C	ASP	B	274	6.008	-70.057	31.53	1	62.69	B	C
ATOM	1954	O	ASP	B	274	6.292	-69.012	30.945	1	54.56	B	O
ATOM	1955	N	CYS	B	275	6.528	-71.249	31.212	1	55.4	B	N
ATOM	1956	CA	CYS	B	275	7.294	-71.479	29.992	1	61.46	B	C
ATOM	1957	CB	CYS	B	275	7.834	-72.912	29.946	1	58.81	B	C
ATOM	1958	SG	CYS	B	275	8.77	-73.324	28.451	1	65.73	B	S
ATOM	1959	C	CYS	B	275	6.465	-71.202	28.714	1	61.34	B	C
ATOM	1960	O	CYS	B	275	6.953	-70.525	27.796	1	63.2	B	O
ATOM	1961	N	LYS	B	276	5.237	-71.72	28.67	1	55.59	B	N
ATOM	1962	CA	LYS	B	276	4.328	-71.501	27.536	1	60.46	B	C
ATOM	1963	CB	LYS	B	276	2.953	-72.129	27.769	1	63.33	B	C
ATOM	1964	CG	LYS	B	276	2.929	-73.639	27.622	1	72.11	B	C
ATOM	1965	CD	LYS	B	276	1.606	-74.238	28.085	1	84.68	B	C
ATOM	1966	CE	LYS	B	276	1.567	-75.757	27.935	1	91.28	B	C
ATOM	1967	NZ	LYS	B	276	0.79	-76.144	26.724	1	99.33	B	N
ATOM	1968	C	LYS	B	276	4.151	-70.021	27.291	1	58.34	B	C
ATOM	1969	O	LYS	B	276	4.341	-69.542	26.161	1	51.53	B	O
ATOM	1970	N	ALA	B	277	3.835	-69.299	28.36	1	51.27	B	N
ATOM	1971	CA	ALA	B	277	3.647	-67.86	28.269	1	51.23	B	C
ATOM	1972	CB	ALA	B	277	3.109	-67.305	29.572	1	51.4	B	C
ATOM	1973	C	ALA	B	277	4.899	-67.101	27.83	1	54.22	B	C
ATOM	1974	O	ALA	B	277	4.793	-66.134	27.068	1	53.3	B	O
ATOM	1975	N	ALA	B	278	6.084	-67.522	28.288	1	54.48	B	N
ATOM	1976	CA	ALA	B	278	7.318	-66.78	27.944	1	49.47	B	C
ATOM	1977	CB	ALA	B	278	8.452	-67.119	28.899	1	46.82	B	C
ATOM	1978	C	ALA	B	278	7.749	-67.053	26.507	1	45.05	B	C
ATOM	1979	O	ALA	B	278	8.44	-66.231	25.901	1	46.65	B	O
ATOM	1980	N	TYR	B	279	7.397	-68.237	26.02	1	40.37	B	N
ATOM	1981	CA	TYR	B	279	7.563	-68.614	24.631	1	47.33	B	C
ATOM	1982	CB	TYR	B	279	7.216	-70.093	24.387	1	47.12	B	C
ATOM	1983	CG	TYR	B	279	7.209	-70.377	22.923	1	53.68	B	C
ATOM	1984	CD1	TYR	B	279	8.403	-70.367	22.17	1	58.31	B	C
ATOM	1985	CE1	TYR	B	279	8.393	-70.607	20.785	1	54.68	B	C
ATOM	1986	CZ	TYR	B	279	7.159	-70.816	20.139	1	62.06	B	C
ATOM	1987	OH	TYR	B	279	7.043	-71.03	18.771	1	56.98	B	O
ATOM	1988	CE2	TYR	B	279	5.983	-70.796	20.875	1	62.25	B	C
ATOM	1989	CD2	TYR	B	279	6.013	-70.567	22.249	1	58.9	B	C
ATOM	1990	C	TYR	B	279	6.703	-67.726	23.728	1	42.07	B	C
ATOM	1991	O	TYR	B	279	7.196	-67.115	22.762	1	46.8	B	O
ATOM	1992	N	ILE	B	280	5.432	-67.631	24.074	1	41.62	B	N
ATOM	1993	CA	ILE	B	280	4.485	-66.769	23.353	1	44.35	B	C
ATOM	1994	CB	ILE	B	280	3.071	-66.869	23.98	1	45.22	B	C
ATOM	1995	CG1	ILE	B	280	2.494	-68.245	23.602	1	46.68	B	C
ATOM	1996	CD1	ILE	B	280	1.283	-68.703	24.374	1	46.49	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1997	CG2	ILE	B	280	2.159	-65.747	23.505	1	46.41	B	C
ATOM	1998	C	ILE	B	280	4.998	-65.337	23.294	1	48.53	B	C
ATOM	1999	O	ILE	B	280	4.835	-64.662	22.27	1	47.98	B	O
ATOM	2000	N	ASP	B	281	5.667	-64.898	24.365	1	50.22	B	N
ATOM	2001	CA	ASP	B	281	6.192	-63.539	24.441	1	51.71	B	C
ATOM	2002	CB	ASP	B	281	6.28	-63.073	25.899	1	61.01	B	C
ATOM	2003	CG	ASP	B	281	4.922	-63.109	26.605	1	72.44	B	C
ATOM	2004	OD1	ASP	B	281	3.89	-63.365	25.943	1	88.81	B	O
ATOM	2005	OD2	ASP	B	281	4.869	-62.902	27.833	1	82.45	B	O
ATOM	2006	C	ASP	B	281	7.51	-63.336	23.712	1	47.62	B	C
ATOM	2007	O	ASP	B	281	7.969	-62.188	23.571	1	50.43	B	O
ATOM	2008	N	ILE	B	282	8.12	-64.401	23.201	1	44.51	B	N
ATOM	2009	CA	ILE	B	282	9.223	-64.179	22.253	1	46.31	B	C
ATOM	2010	CB	ILE	B	282	10.44	-65.109	22.473	1	48.05	B	C
ATOM	2011	CG1	ILE	B	282	10.074	-66.58	22.36	1	51.06	B	C
ATOM	2012	CD1	ILE	B	282	11.273	-67.509	22.296	1	48.95	B	C
ATOM	2013	CG2	ILE	B	282	11.058	-64.81	23.828	1	57.56	B	C
ATOM	2014	C	ILE	B	282	8.769	-64.177	20.771	1	45.2	B	C
ATOM	2015	O	ILE	B	282	9.583	-63.872	19.862	1	47.2	B	O
ATOM	2016	N	LEU	B	283	7.499	-64.484	20.528	1	40.33	B	N
ATOM	2017	CA	LEU	B	283	6.983	-64.445	19.175	1	43.21	B	C
ATOM	2018	CB	LEU	B	283	5.689	-65.172	19.079	1	42.67	B	C
ATOM	2019	CG	LEU	B	283	5.762	-66.657	19.392	1	43.36	B	C
ATOM	2020	CD1	LEU	B	283	4.341	-67.186	19.438	1	45.13	B	C
ATOM	2021	CD2	LEU	B	283	6.595	-67.449	18.404	1	44.09	B	C
ATOM	2022	C	LEU	B	283	6.831	-62.98	18.772	1	44.95	B	C
ATOM	2023	O	LEU	B	283	6.53	-62.133	19.577	1	47.39	B	O
ATOM	2024	N	GLY	B	284	7.133	-62.682	17.527	1	46.39	B	N
ATOM	2025	CA	GLY	B	284	7.137	-61.311	17.055	1	44.37	B	C
ATOM	2026	C	GLY	B	284	8.436	-60.638	17.357	1	44.3	B	C
ATOM	2027	O	GLY	B	284	8.481	-59.39	17.41	1	47.29	B	O
ATOM	2028	N	THR	B	285	9.491	-61.451	17.541	1	44.46	B	N
ATOM	2029	CA	THR	B	285	10.867	-60.963	17.763	1	41.33	B	C
ATOM	2030	CB	THR	B	285	11.384	-61.215	19.238	1	43.83	B	C
ATOM	2031	OG1	THR	B	285	11.737	-62.609	19.474	1	41.17	B	O
ATOM	2032	CG2	THR	B	285	10.329	-60.763	20.271	1	45.7	B	C
ATOM	2033	C	THR	B	285	11.78	-61.701	16.821	1	43.02	B	C
ATOM	2034	O	THR	B	285	11.364	-62.698	16.239	1	45.28	B	O
ATOM	2035	N	VAL	B	286	13.049	-61.273	16.77	1	45.07	B	N
ATOM	2036	CA	VAL	B	286	14.097	-61.946	16.021	1	44.16	B	C
ATOM	2037	CB	VAL	B	286	15.459	-61.176	16.16	1	44.39	B	C
ATOM	2038	CG1	VAL	B	286	16.117	-61.41	17.521	1	44.15	B	C
ATOM	2039	CG2	VAL	B	286	16.43	-61.58	15.076	1	41.98	B	C
ATOM	2040	C	VAL	B	286	14.213	-63.455	16.384	1	43.33	B	C
ATOM	2041	O	VAL	B	286	14.614	-64.291	15.54	1	45.19	B	O
ATOM	2042	N	LEU	B	287	13.803	-63.811	17.597	1	43.65	B	N
ATOM	2043	CA	LEU	B	287	13.904	-65.209	18.078	1	44.96	B	C
ATOM	2044	CB	LEU	B	287	13.717	-65.287	19.617	1	47.77	B	C
ATOM	2045	CG	LEU	B	287	14.653	-64.383	20.455	1	48.53	B	C
ATOM	2046	CD1	LEU	B	287	14.159	-64.209	21.878	1	54.36	B	C
ATOM	2047	CD2	LEU	B	287	16.096	-64.876	20.474	1	50.54	B	C
ATOM	2048	C	LEU	B	287	12.965	-66.172	17.366	1	42.36	B	C
ATOM	2049	O	LEU	B	287	13.177	-67.401	17.4	1	46.16	B	O
ATOM	2050	N	GLN	B	288	11.91	-65.633	16.763	1	38.71	B	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	2051	CA	GLN	B	288	10.988	-66.402	15.919	1	43.11	B	C
ATOM	2052	CB	GLN	B	288	9.752	-65.53	15.685	1	46.91	B	C
ATOM	2053	CG	GLN	B	288	8.634	-66.188	14.89	1	51.62	B	C
ATOM	2054	CD	GLN	B	288	7.331	-65.448	15.016	1	53.17	B	C
ATOM	2055	OE1	GLN	B	288	7.306	-64.26	15.349	1	55.32	B	O
ATOM	2056	NE2	GLN	B	288	6.245	-66.135	14.738	1	57.04	B	N
ATOM	2057	C	GLN	B	288	11.532	-66.799	14.52	1	47.79	B	C
ATOM	2058	O	GLN	B	288	10.978	-67.669	13.849	1	53.98	B	O
ATOM	2059	N	VAL	B	289	12.59	-66.143	14.07	1	47.6	B	N
ATOM	2060	CA	VAL	B	289	13.104	-66.322	12.712	1	49.86	B	C
ATOM	2061	CB	VAL	B	289	14.057	-65.176	12.346	1	49.81	B	C
ATOM	2062	CG1	VAL	B	289	14.729	-65.433	10.999	1	51.02	B	C
ATOM	2063	CG2	VAL	B	289	13.322	-63.84	12.392	1	44.39	B	C
ATOM	2064	C	VAL	B	289	13.902	-67.593	12.668	1	47.18	B	C
ATOM	2065	O	VAL	B	289	14.82	-67.763	13.476	1	43.82	B	O
ATOM	2066	N	GLN	B	290	13.61	-68.448	11.703	1	48.4	B	N
ATOM	2067	CA	GLN	B	290	14.293	-69.752	11.623	1	57.86	B	C
ATOM	2068	CB	GLN	B	290	13.734	-70.611	10.505	1	66.85	B	C
ATOM	2069	CG	GLN	B	290	13.869	-72.104	10.756	1	78.97	B	C
ATOM	2070	CD	GLN	B	290	12.848	-72.896	9.947	1	85.48	B	C
ATOM	2071	OE1	GLN	B	290	12.878	-72.891	8.714	1	92.17	B	O
ATOM	2072	NE2	GLN	B	290	11.919	-73.54	10.633	1	84.51	B	N
ATOM	2073	C	GLN	B	290	15.779	-69.537	11.395	1	54.93	B	C
ATOM	2074	O	GLN	B	290	16.174	-68.762	10.535	1	47.22	B	O
ATOM	2075	N	CYS	B	291	16.602	-70.189	12.199	1	51.11	B	N
ATOM	2076	CA	CYS	B	291	18.03	-69.936	12.16	1	45.32	B	C
ATOM	2077	CB	CYS	B	291	18.487	-69.339	13.489	1	50.61	B	C
ATOM	2078	SG	CYS	B	291	18.262	-70.423	14.915	1	50.63	B	S
ATOM	2079	C	CYS	B	291	18.742	-71.229	11.87	1	47.34	B	C
ATOM	2080	O	CYS	B	291	18.217	-72.318	12.134	1	44.04	B	O
ATOM	2081	N	THR	B	292	19.961	-71.092	11.358	1	47.54	B	N
ATOM	2082	CA	THR	B	292	20.756	-72.22	10.891	1	47.23	B	C
ATOM	2083	CB	THR	B	292	21.021	-72.081	9.368	1	45.55	B	C
ATOM	2084	OG1	THR	B	292	21.755	-73.206	8.9	1	52.8	B	O
ATOM	2085	CG2	THR	B	292	21.786	-70.811	9.017	1	39.81	B	C
ATOM	2086	C	THR	B	292	22.085	-72.324	11.664	1	50.44	B	C
ATOM	2087	O	THR	B	292	22.593	-71.3	12.188	1	41.49	B	O
ATOM	2088	N	CYS	B	293	22.644	-73.543	11.74	1	45.73	B	N
ATOM	2089	CA	CYS	B	293	24.027	-73.711	12.224	1	49.18	B	C
ATOM	2090	CB	CYS	B	293	24.049	-74.681	13.411	1	52.62	B	C
ATOM	2091	SG	CYS	B	293	23.219	-73.935	14.859	1	52.05	B	S
ATOM	2092	C	CYS	B	293	25.108	-74.037	11.16	1	55.13	B	C
ATOM	2093	O	CYS	B	293	26.287	-74.085	11.48	1	57.44	B	O
ATOM	2094	N	ARG	B	294	24.728	-74.182	9.895	1	57.21	B	N
ATOM	2095	CA	ARG	B	294	25.7	-74.118	8.789	1	61.43	B	C
ATOM	2096	CB	ARG	B	294	24.996	-74.318	7.457	1	61.02	B	C
ATOM	2097	CG	ARG	B	294	24.203	-75.588	7.349	1	57.21	B	C
ATOM	2098	CD	ARG	B	294	23.287	-75.537	6.147	1	55.49	B	C
ATOM	2099	NE	ARG	B	294	22.003	-76.163	6.442	1	60.25	B	N
ATOM	2100	CZ	ARG	B	294	21.111	-76.536	5.524	1	71.23	B	C
ATOM	2101	NH1	ARG	B	294	19.953	-77.072	5.89	1	73.42	B	N
ATOM	2102	NH2	ARG	B	294	21.37	-76.393	4.237	1	77.11	B	N
ATOM	2103	C	ARG	B	294	26.235	-72.693	8.781	1	67.09	B	C
ATOM	2104	O	ARG	B	294	25.586	-71.798	9.342	1	79.76	B	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	2105	N	THR	B	295	27.359	-72.464	8.119	1	61.68	B	N
ATOM	2106	CA	THR	B	295	28.039	-71.149	8.086	1	70.86	B	C
ATOM	2107	CB	THR	B	295	27.126	-69.922	8.366	1	71.01	B	C
ATOM	2108	OG1	THR	B	295	25.879	-70.065	7.686	1	90.81	B	O
ATOM	2109	CG2	THR	B	295	27.793	-68.595	7.922	1	76.24	B	C
ATOM	2110	C	THR	B	295	29.139	-71.037	9.138	1	79.69	B	C
ATOM	2111	O	THR	B	295	30.075	-70.245	8.98	1	82.47	B	O
ATOM	2112	N	ILE	B	296	29.024	-71.827	10.203	1	77.89	B	N
ATOM	2113	CA	ILE	B	296	29.57	-71.458	11.501	1	74.35	B	C
ATOM	2114	CB	ILE	B	296	28.526	-71.832	12.602	1	71.68	B	C
ATOM	2115	CG1	ILE	B	296	28.293	-70.663	13.54	1	72.96	B	C
ATOM	2116	CD1	ILE	B	296	27.492	-69.55	12.921	1	70.06	B	C
ATOM	2117	CG2	ILE	B	296	28.889	-73.09	13.404	1	74.06	B	C
ATOM	2118	C	ILE	B	296	30.944	-72.114	11.698	1	75.95	B	C
ATOM	2119	O	ILE	B	296	31.163	-73.235	11.245	1	78.99	B	O
ATOM	2120	N	THR	B	297	31.866	-71.433	12.377	1	81.17	B	N
ATOM	2121	CA	THR	B	297	33.196	-72.024	12.645	1	84.16	B	C
ATOM	2122	CB	THR	B	297	34.152	-71.035	13.313	1	83	B	C
ATOM	2123	OG1	THR	B	297	33.546	-70.575	14.524	1	80.52	B	O
ATOM	2124	CG2	THR	B	297	34.478	-69.86	12.382	1	78.19	B	C
ATOM	2125	C	THR	B	297	33.103	-73.256	13.556	1	82.52	B	C
ATOM	2126	O	THR	B	297	32.245	-73.326	14.435	1	84.61	B	O
ATOM	2127	N	GLN	B	298	33.981	-74.223	13.309	1	83.17	B	N
ATOM	2128	CA	GLN	B	298	34.059	-75.464	14.079	1	88.99	B	C
ATOM	2129	CB	GLN	B	298	35.404	-76.159	13.777	1	97.97	B	C
ATOM	2130	CG	GLN	B	298	35.922	-77.181	14.79	1	103.12	B	C
ATOM	2131	CD	GLN	B	298	35.061	-78.423	14.894	1	104.5	B	C
ATOM	2132	OE1	GLN	B	298	35.404	-79.469	14.345	1	108.32	B	O
ATOM	2133	NE2	GLN	B	298	33.948	-78.322	15.607	1	101.78	B	N
ATOM	2134	C	GLN	B	298	33.89	-75.203	15.579	1	94.1	B	C
ATOM	2135	O	GLN	B	298	33.079	-75.878	16.24	1	88.07	B	O
ATOM	2136	N	SER	B	299	34.647	-74.222	16.094	1	92.42	B	N
ATOM	2137	CA	SER	B	299	34.642	-73.872	17.528	1	85.58	B	C
ATOM	2138	CB	SER	B	299	35.562	-72.671	17.824	1	79.87	B	C
ATOM	2139	OG	SER	B	299	35.504	-71.686	16.809	1	77.13	B	O
ATOM	2140	C	SER	B	299	33.221	-73.63	18.071	1	88.52	B	C
ATOM	2141	O	SER	B	299	32.744	-74.416	18.903	1	80.35	B	O
ATOM	2142	N	GLU	B	300	32.534	-72.608	17.538	1	82.61	B	N
ATOM	2143	CA	GLU	B	300	31.222	-72.152	18.069	1	78.03	B	C
ATOM	2144	CB	GLU	B	300	31.087	-70.628	17.915	1	77.53	B	C
ATOM	2145	CG	GLU	B	300	31.04	-70.088	16.495	1	80.94	B	C
ATOM	2146	CD	GLU	B	300	31.387	-68.595	16.384	1	79.64	B	C
ATOM	2147	OE1	GLU	B	300	31.581	-68.109	15.245	1	83.2	B	O
ATOM	2148	OE2	GLU	B	300	31.469	-67.894	17.415	1	79.64	B	O
ATOM	2149	C	GLU	B	300	29.967	-72.91	17.558	1	74.01	B	C
ATOM	2150	O	GLU	B	300	28.85	-72.383	17.572	1	75.67	B	O
ATOM	2151	N	GLU	B	301	30.154	-74.187	17.228	1	71.82	B	N
ATOM	2152	CA	GLU	B	301	29.174	-74.997	16.539	1	68.92	B	C
ATOM	2153	CB	GLU	B	301	29.874	-76.082	15.722	1	73.12	B	C
ATOM	2154	CG	GLU	B	301	28.99	-76.788	14.711	1	80.11	B	C
ATOM	2155	CD	GLU	B	301	29.569	-78.117	14.25	1	85.28	B	C
ATOM	2156	OE1	GLU	B	301	30.755	-78.136	13.866	1	92.5	B	O
ATOM	2157	OE2	GLU	B	301	28.841	-79.141	14.263	1	82.96	B	O
ATOM	2158	C	GLU	B	301	28.21	-75.62	17.511	1	66.28	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	2159	O	GLU	B	301	27.01	-75.549	17.293	1	73.59	B	O
ATOM	2160	N	SER	B	302	28.711	-76.249	18.571	1	67.68	B	N
ATOM	2161	CA	SER	B	302	27.822	-76.77	19.644	1	69.12	B	C
ATOM	2162	CB	SER	B	302	28.573	-77.507	20.78	1	69.64	B	C
ATOM	2163	OG	SER	B	302	29.948	-77.656	20.501	1	75.15	B	O
ATOM	2164	C	SER	B	302	27.023	-75.63	20.261	1	56.28	B	C
ATOM	2165	O	SER	B	302	25.845	-75.827	20.549	1	63.02	B	O
ATOM	2166	N	LEU	B	303	27.669	-74.466	20.472	1	49.66	B	N
ATOM	2167	CA	LEU	B	303	26.989	-73.289	21.017	1	50.12	B	C
ATOM	2168	CB	LEU	B	303	27.901	-72.075	21.13	1	46.8	B	C
ATOM	2169	CG	LEU	B	303	27.163	-70.823	21.666	1	51.82	B	C
ATOM	2170	CD1	LEU	B	303	26.509	-71.065	23.018	1	51.97	B	C
ATOM	2171	CD2	LEU	B	303	28.039	-69.569	21.733	1	50.71	B	C
ATOM	2172	C	LEU	B	303	25.785	-72.881	20.158	1	56.02	B	C
ATOM	2173	O	LEU	B	303	24.71	-72.562	20.708	1	54.67	B	O
ATOM	2174	N	CYS	B	304	26	-72.844	18.834	1	56.11	B	N
ATOM	2175	CA	CYS	B	304	24.921	-72.617	17.852	1	50.82	B	C
ATOM	2176	CB	CYS	B	304	25.475	-72.535	16.431	1	53.5	B	C
ATOM	2177	SG	CYS	B	304	24.226	-72.068	15.19	1	53.28	B	S
ATOM	2178	C	CYS	B	304	23.82	-73.675	17.963	1	50.65	B	C
ATOM	2179	O	CYS	B	304	22.647	-73.323	18.168	1	49.96	B	O
ATOM	2180	N	LYS	B	305	24.177	-74.958	17.927	1	49.41	B	N
ATOM	2181	CA	LYS	B	305	23.149	-76.025	18.019	1	51.89	B	C
ATOM	2182	CB	LYS	B	305	23.752	-77.427	17.865	1	62.33	B	C
ATOM	2183	CG	LYS	B	305	24.75	-77.556	16.739	1	69.39	B	C
ATOM	2184	CD	LYS	B	305	24.608	-78.857	16	1	80.74	B	C
ATOM	2185	CE	LYS	B	305	25.712	-78.975	14.963	1	91.04	B	C
ATOM	2186	NZ	LYS	B	305	25.248	-79.724	13.763	1	97.43	B	N
ATOM	2187	C	LYS	B	305	22.398	-75.994	19.332	1	55.17	B	C
ATOM	2188	O	LYS	B	305	21.237	-76.438	19.415	1	52.21	B	O
ATOM	2189	N	ILE	B	306	23.062	-75.514	20.381	1	53.43	B	N
ATOM	2190	CA	ILE	B	306	22.405	-75.461	21.674	1	52.66	B	C
ATOM	2191	CB	ILE	B	306	23.429	-75.31	22.823	1	55.19	B	C
ATOM	2192	CG1	ILE	B	306	24.067	-76.68	23.082	1	57.15	B	C
ATOM	2193	CD1	ILE	B	306	25.407	-76.628	23.78	1	58.54	B	C
ATOM	2194	CG2	ILE	B	306	22.767	-74.788	24.1	1	58.3	B	C
ATOM	2195	C	ILE	B	306	21.353	-74.368	21.657	1	45.36	B	C
ATOM	2196	O	ILE	B	306	20.221	-74.593	22.086	1	44.63	B	O
ATOM	2197	N	PHE	B	307	21.735	-73.179	21.197	1	45.64	B	N
ATOM	2198	CA	PHE	B	307	20.761	-72.127	20.987	1	48.61	B	C
ATOM	2199	CB	PHE	B	307	21.416	-70.861	20.456	1	48.72	B	C
ATOM	2200	CG	PHE	B	307	22.184	-70.078	21.499	1	55.29	B	C
ATOM	2201	CD1	PHE	B	307	21.676	-69.882	22.783	1	55.79	B	C
ATOM	2202	CE1	PHE	B	307	22.39	-69.169	23.718	1	59	B	C
ATOM	2203	CZ	PHE	B	307	23.617	-68.62	23.395	1	56.7	B	C
ATOM	2204	CE2	PHE	B	307	24.129	-68.793	22.122	1	57.01	B	C
ATOM	2205	CD2	PHE	B	307	23.413	-69.515	21.186	1	56.62	B	C
ATOM	2206	C	PHE	B	307	19.628	-72.555	20.038	1	52.58	B	C
ATOM	2207	O	PHE	B	307	18.45	-72.32	20.332	1	54.04	B	O
ATOM	2208	N	GLN	B	308	19.975	-73.185	18.923	1	50.59	B	N
ATOM	2209	CA	GLN	B	308	18.951	-73.687	17.998	1	54.01	B	C
ATOM	2210	CB	GLN	B	308	19.588	-74.434	16.827	1	52.68	B	C
ATOM	2211	CG	GLN	B	308	18.66	-74.684	15.654	1	53.08	B	C
ATOM	2212	CD	GLN	B	308	19.378	-75.36	14.499	1	52.94	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	2213	OE1	GLN	B	308	19.394	-74.863	13.364	1	56.88	B	O
ATOM	2214	NE2	GLN	B	308	19.985	-76.495	14.786	1	52.02	B	N
ATOM	2215	C	GLN	B	308	17.946	-74.602	18.705	1	48.27	B	C
ATOM	2216	O	GLN	B	308	16.74	-74.51	18.486	1	51.19	B	O
ATOM	2217	N	HIS	B	309	18.447	-75.474	19.563	1	49.44	B	N
ATOM	2218	CA	HIS	B	309	17.601	-76.426	20.286	1	49.58	B	C
ATOM	2219	CB	HIS	B	309	18.477	-77.442	21.035	1	54.27	B	C
ATOM	2220	CG	HIS	B	309	17.705	-78.433	21.85	1	58.26	B	C
ATOM	2221	ND1	HIS	B	309	17.225	-79.614	21.326	1	62.63	B	N
ATOM	2222	CE1	HIS	B	309	16.604	-80.292	22.273	1	62.63	B	C
ATOM	2223	NE2	HIS	B	309	16.666	-79.593	23.393	1	63.56	B	N
ATOM	2224	CD2	HIS	B	309	17.338	-78.42	23.153	1	55.98	B	C
ATOM	2225	C	HIS	B	309	16.692	-75.694	21.25	1	49.81	B	C
ATOM	2226	O	HIS	B	309	15.528	-76.04	21.373	1	54.66	B	O
ATOM	2227	N	MET	B	310	17.222	-74.662	21.907	1	51.13	B	N
ATOM	2228	CA	MET	B	310	16.459	-73.91	22.908	1	52.94	B	C
ATOM	2229	CB	MET	B	310	17.411	-73.054	23.735	1	60.02	B	C
ATOM	2230	CG	MET	B	310	18.335	-73.876	24.66	1	65.7	B	C
ATOM	2231	SD	MET	B	310	19.03	-72.877	25.999	1	60.12	B	S
ATOM	2232	CE	MET	B	310	19.918	-71.637	25.081	1	62.38	B	C
ATOM	2233	C	MET	B	310	15.358	-73.028	22.317	1	58.43	B	C
ATOM	2234	O	MET	B	310	14.299	-72.828	22.931	1	49.43	B	O
ATOM	2235	N	LEU	B	311	15.626	-72.495	21.124	1	55.3	B	N
ATOM	2236	CA	LEU	B	311	14.663	-71.701	20.379	1	54.76	B	C
ATOM	2237	CB	LEU	B	311	15.425	-70.837	19.365	1	52.9	B	C
ATOM	2238	CG	LEU	B	311	16.244	-69.77	20.085	1	51.8	B	C
ATOM	2239	CD1	LEU	B	311	17.048	-68.986	19.068	1	46.27	B	C
ATOM	2240	CD2	LEU	B	311	15.346	-68.873	20.96	1	48.62	B	C
ATOM	2241	C	LEU	B	311	13.538	-72.515	19.702	1	53.84	B	C
ATOM	2242	O	LEU	B	311	12.5	-71.952	19.309	1	51.52	B	O
ATOM	2243	N	HIS	B	312	13.713	-73.828	19.61	1	56.51	B	N
ATOM	2244	CA	HIS	B	312	12.74	-74.667	18.924	1	62.13	B	C
ATOM	2245	CB	HIS	B	312	13.404	-75.873	18.282	1	62.52	B	C
ATOM	2246	CG	HIS	B	312	12.669	-76.337	17.079	1	75.27	B	C
ATOM	2247	ND1	HIS	B	312	11.639	-77.245	17.156	1	81.3	B	N
ATOM	2248	CE1	HIS	B	312	11.13	-77.436	15.956	1	72.39	B	C
ATOM	2249	NE2	HIS	B	312	11.77	-76.652	15.108	1	81.34	B	N
ATOM	2250	CD2	HIS	B	312	12.724	-75.936	15.789	1	75.21	B	C
ATOM	2251	C	HIS	B	312	11.576	-75.096	19.82	1	65.6	B	C
ATOM	2252	O	HIS	B	312	11.793	-75.572	20.947	1	66.91	B	O
ATOM	2253	N	ARG	B	313	10.343	-74.916	19.319	1	64.63	B	N
ATOM	2254	CA	ARG	B	313	9.137	-75.116	20.137	1	68.65	B	C
ATOM	2255	CB	ARG	B	313	7.884	-74.453	19.52	1	71.7	B	C
ATOM	2256	CG	ARG	B	313	7.382	-75.039	18.208	1	70.13	B	C
ATOM	2257	CD	ARG	B	313	5.972	-74.574	17.816	1	74.5	B	C
ATOM	2258	NE	ARG	B	313	5.468	-75.415	16.713	1	75.53	B	N
ATOM	2259	CZ	ARG	B	313	4.196	-75.538	16.31	1	76.08	B	C
ATOM	2260	NH1	ARG	B	313	3.925	-76.373	15.308	1	78.33	B	N
ATOM	2261	NH2	ARG	B	313	3.19	-74.852	16.878	1	74.93	B	N
ATOM	2262	C	ARG	B	313	8.869	-76.584	20.44	1	70.81	B	C
ATOM	2263	O	ARG	B	313	8.305	-76.893	21.486	1	70.23	B	O
ATOM	2264	N	LYS	B	314	9.22	-77.465	19.498	1	76.73	B	N
ATOM	2265	CA	LYS	B	314	9.17	-78.935	19.703	1	86.87	B	C
ATOM	2266	CB	LYS	B	314	9.552	-79.717	18.416	1	95.74	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	2267	CG	LYS	B	314	10.965	-80.337	18.358	1	103.07	B	C
ATOM	2268	CD	LYS	B	314	11.272	-80.941	16.982	1	110.25	B	C
ATOM	2269	CE	LYS	B	314	12.645	-80.559	16.438	1	113.63	B	C
ATOM	2270	NZ	LYS	B	314	12.678	-80.71	14.952	1	117.87	B	N
ATOM	2271	C	LYS	B	314	10.023	-79.415	20.889	1	82.22	B	C
ATOM	2272	O	LYS	B	314	9.645	-80.367	21.575	1	83.12	B	O
ATOM	2273	N	SER	B	315	11.167	-78.76	21.105	1	71.79	B	N
ATOM	2274	CA	SER	B	315	12.013	-79.017	22.273	1	69.76	B	C
ATOM	2275	CB	SER	B	315	13.304	-78.194	22.192	1	64.2	B	C
ATOM	2276	OG	SER	B	315	13.918	-78.345	20.929	1	66.4	B	O
ATOM	2277	C	SER	B	315	11.336	-78.765	23.636	1	68.25	B	C
ATOM	2278	O	SER	B	315	11.833	-79.263	24.656	1	74.38	B	O
ATOM	2279	N	CYS	B	316	10.261	-77.966	23.67	1	62.65	B	N
ATOM	2280	CA	CYS	B	316	9.476	-77.748	24.902	1	68.81	B	C
ATOM	2281	CB	CYS	B	316	9.439	-76.256	25.246	1	68.41	B	C
ATOM	2282	SG	CYS	B	316	11.011	-75.579	25.848	1	73.83	B	S
ATOM	2283	C	CYS	B	316	8.037	-78.32	24.885	1	72.28	B	C
ATOM	2284	O	CYS	B	316	7.46	-78.528	25.955	1	70.57	B	O
ATOM	2285	N	PHE	B	317	7.477	-78.591	23.698	1	77.56	B	N
ATOM	2286	CA	PHE	B	317	6.055	-78.931	23.552	1	78.82	B	C
ATOM	2287	CB	PHE	B	317	5.239	-77.647	23.356	1	79.14	B	C
ATOM	2288	CG	PHE	B	317	5.56	-76.562	24.345	1	83.93	B	C
ATOM	2289	CD1	PHE	B	317	5.092	-76.635	25.654	1	88.9	B	C
ATOM	2290	CE1	PHE	B	317	5.394	-75.632	26.574	1	88.22	B	C
ATOM	2291	CZ	PHE	B	317	6.164	-74.536	26.192	1	82.39	B	C
ATOM	2292	CE2	PHE	B	317	6.644	-74.45	24.893	1	86.67	B	C
ATOM	2293	CD2	PHE	B	317	6.345	-75.465	23.975	1	90	B	C
ATOM	2294	C	PHE	B	317	5.768	-79.865	22.381	1	79.06	B	C
ATOM	2295	O	PHE	B	317	5.958	-79.477	21.233	1	78.14	B	O
ATOM	2296	N	ASN	B	318	5.335	-81.092	22.675	1	86.74	B	N
ATOM	2297	CA	ASN	B	318	4.603	-81.937	21.69	1	97.22	B	C
ATOM	2298	CB	ASN	B	318	5.472	-82.382	20.488	1	96.55	B	C
ATOM	2299	CG	ASN	B	318	6.789	-82.994	20.914	1	102.52	B	C
ATOM	2300	OD1	ASN	B	318	6.81	-83.983	21.644	1	108.78	B	O
ATOM	2301	ND2	ASN	B	318	7.895	-82.416	20.461	1	101.47	B	N
ATOM	2302	C	ASN	B	318	3.928	-83.147	22.336	1	90.47	B	C
ATOM	2303	O	ASN	B	318	2.727	-83.35	22.159	1	87.94	B	O

Column 1 - record name; Column 2 - atom serial number; Column 3 - atom name; Column 4 amino acid residue name; Column 5 - chain identifier; Column 6 - amino acid residue sequence number; Column 7 - orthogonal coordinates for X in Angstroms; Column 8 - orthogonal coordinates for Y in Angstroms; Column 9 - orthogonal coordinates for Z in Angstroms; Column 10 - occupancy; Column 11 - temperature factor; Column 12 - Segment identifier; Column 13 - element symbol.

Table 50

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1	N	SER	B	130	-69.909	113.934	309.945	1	60.75	B	N
ATOM	2	CA	SER	B	130	-70.512	115.227	309.465	1	64.19	B	C
ATOM	3	CB	SER	B	130	-71.596	115.702	310.427	1	64.31	B	C
ATOM	4	OG	SER	B	130	-71.816	117.106	310.274	1	68.12	B	O
ATOM	5	C	SER	B	130	-69.526	116.416	309.225	1	67.87	B	C
ATOM	6	O	SER	B	130	-68.798	116.847	310.135	1	66.68	B	O
ATOM	7	N	CYS	B	131	-69.59	117	308.027	1	67.56	B	N
ATOM	8	CA	CYS	B	131	-68.691	118.087	307.632	1	71.76	B	C
ATOM	9	CB	CYS	B	131	-69.034	118.631	306.241	1	75.07	B	C
ATOM	10	SG	CYS	B	131	-68.998	117.461	304.859	1	87.02	B	S
ATOM	11	C	CYS	B	131	-68.643	119.248	308.613	1	72.71	B	C
ATOM	12	O	CYS	B	131	-67.618	119.917	308.707	1	77.89	B	O
ATOM	13	N	LEU	B	132	-69.729	119.501	309.338	1	79.41	B	N
ATOM	14	CA	LEU	B	132	-69.689	120.523	310.384	1	82.12	B	C
ATOM	15	CB	LEU	B	132	-71.065	120.757	311.026	1	82.82	B	C
ATOM	16	CG	LEU	B	132	-71.355	122.119	311.69	1	81.37	B	C
ATOM	17	CD1	LEU	B	132	-70.144	122.861	312.233	1	84.82	B	C
ATOM	18	CD2	LEU	B	132	-72.056	123.041	310.722	1	84.75	B	C
ATOM	19	C	LEU	B	132	-68.665	120.089	311.431	1	76.3	B	C
ATOM	20	O	LEU	B	132	-67.681	120.784	311.662	1	74.25	B	O
ATOM	21	N	GLU	B	133	-68.88	118.924	312.023	1	74.44	B	N
ATOM	22	CA	GLU	B	133	-67.999	118.445	313.082	1	78.68	B	C
ATOM	23	CB	GLU	B	133	-68.532	117.15	313.701	1	84.35	B	C
ATOM	24	CG	GLU	B	133	-69.805	117.352	314.516	1	89.31	B	C
ATOM	25	CD	GLU	B	133	-70.544	116.055	314.821	1	97.08	B	C
ATOM	26	OE1	GLU	B	133	-71.76	116.13	315.121	1	95.78	B	O
ATOM	27	OE2	GLU	B	133	-69.918	114.966	314.766	1	100.79	B	O
ATOM	28	C	GLU	B	133	-66.579	118.249	312.57	1	75.71	B	C
ATOM	29	O	GLU	B	133	-65.63	118.634	313.241	1	75.7	B	O
ATOM	30	N	VAL	B	134	-66.436	117.685	311.373	1	76.15	B	N
ATOM	31	CA	VAL	B	134	-65.114	117.549	310.73	1	73.01	B	C
ATOM	32	CB	VAL	B	134	-65.236	116.894	309.342	1	71.1	B	C
ATOM	33	CG1	VAL	B	134	-64.007	117.141	308.486	1	75.37	B	C
ATOM	34	CG2	VAL	B	134	-65.465	115.407	309.501	1	72.95	B	C
ATOM	35	C	VAL	B	134	-64.378	118.885	310.599	1	67.59	B	C
ATOM	36	O	VAL	B	134	-63.193	118.977	310.913	1	63.38	B	O
ATOM	37	N	ALA	B	135	-65.078	119.903	310.121	1	65.96	B	N
ATOM	38	CA	ALA	B	135	-64.482	121.23	309.982	1	68.08	B	C
ATOM	39	CB	ALA	B	135	-65.461	122.185	309.313	1	71.98	B	C
ATOM	40	C	ALA	B	135	-64.045	121.777	311.339	1	65.73	B	C
ATOM	41	O	ALA	B	135	-62.96	122.342	311.468	1	56.69	B	O
ATOM	42	N	GLU	B	136	-64.883	121.587	312.353	1	70.13	B	N
ATOM	43	CA	GLU	B	136	-64.574	122.09	313.687	1	74.77	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	44	CB	GLU	B	136	-65.773	121.982	314.65	1	78.5	B	C
ATOM	45	CG	GLU	B	136	-65.814	123.08	315.712	1	86.96	B	C
ATOM	46	CD	GLU	B	136	-66.208	124.454	315.158	1	99.18	B	C
ATOM	47	OE1	GLU	B	136	-65.375	125.396	315.238	1	107.06	B	O
ATOM	48	OE2	GLU	B	136	-67.345	124.598	314.634	1	97.67	B	O
ATOM	49	C	GLU	B	136	-63.35	121.377	314.244	1	70.43	B	C
ATOM	50	O	GLU	B	136	-62.512	122.017	314.883	1	77.28	B	O
ATOM	51	N	ALA	B	137	-63.225	120.078	313.969	1	62.17	B	N
ATOM	52	CA	ALA	B	137	-62.099	119.291	314.494	1	57.81	B	C
ATOM	53	CB	ALA	B	137	-62.358	117.801	314.395	1	53.35	B	C
ATOM	54	C	ALA	B	137	-60.813	119.641	313.798	1	58.46	B	C
ATOM	55	O	ALA	B	137	-59.771	119.701	314.428	1	60.13	B	O
ATOM	56	N	CYS	B	138	-60.873	119.89	312.499	1	64.45	B	N
ATOM	57	CA	CYS	B	138	-59.687	120.402	311.807	1	71.58	B	C
ATOM	58	CB	CYS	B	138	-59.887	120.471	310.291	1	74.67	B	C
ATOM	59	SG	CYS	B	138	-59.002	119.119	309.511	1	97.23	B	S
ATOM	60	C	CYS	B	138	-59.253	121.758	312.341	1	67.86	B	C
ATOM	61	O	CYS	B	138	-58.083	121.958	312.682	1	56.5	B	O
ATOM	62	N	VAL	B	139	-60.216	122.669	312.437	1	65.98	B	N
ATOM	63	CA	VAL	B	139	-59.929	124.034	312.846	1	61.71	B	C
ATOM	64	CB	VAL	B	139	-61.166	124.942	312.648	1	54.75	B	C
ATOM	65	CG1	VAL	B	139	-60.993	126.301	313.291	1	52.44	B	C
ATOM	66	CG2	VAL	B	139	-61.411	125.135	311.16	1	56.7	B	C
ATOM	67	C	VAL	B	139	-59.355	124.039	314.268	1	59.98	B	C
ATOM	68	O	VAL	B	139	-58.462	124.83	314.579	1	65.32	B	O
ATOM	69	N	GLY	B	140	-59.834	123.122	315.099	1	57.81	B	N
ATOM	70	CA	GLY	B	140	-59.308	122.937	316.45	1	60	B	C
ATOM	71	C	GLY	B	140	-57.881	122.435	316.511	1	56.48	B	C
ATOM	72	O	GLY	B	140	-57.122	122.831	317.374	1	64.02	B	O
ATOM	73	N	ASP	B	141	-57.519	121.562	315.592	1	57.25	B	N
ATOM	74	CA	ASP	B	141	-56.198	120.955	315.57	1	58.08	B	C
ATOM	75	CB	ASP	B	141	-56.313	119.608	314.858	1	64.23	B	C
ATOM	76	CG	ASP	B	141	-55.099	118.749	315.018	1	69.1	B	C
ATOM	77	OD1	ASP	B	141	-54.157	118.894	314.195	1	71.5	B	O
ATOM	78	OD2	ASP	B	141	-55.118	117.906	315.947	1	74.74	B	O
ATOM	79	C	ASP	B	141	-55.187	121.886	314.874	1	58.2	B	C
ATOM	80	O	ASP	B	141	-55.265	122.157	313.679	1	59.95	B	O
ATOM	81	N	VAL	B	142	-54.231	122.381	315.637	1	61.54	B	N
ATOM	82	CA	VAL	B	142	-53.174	123.258	315.109	1	59.97	B	C
ATOM	83	CB	VAL	B	142	-52.134	123.532	316.223	1	57.96	B	C
ATOM	84	CG1	VAL	B	142	-50.772	123.976	315.695	1	61.89	B	C
ATOM	85	CG2	VAL	B	142	-52.696	124.579	317.164	1	56.95	B	C
ATOM	86	C	VAL	B	142	-52.508	122.764	313.813	1	59.43	B	C
ATOM	87	O	VAL	B	142	-52.17	123.582	312.95	1	63.22	B	O
ATOM	88	N	VAL	B	143	-52.323	121.45	313.674	1	61.18	B	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	89	CA	VAL	B	143	-51.611	120.899	312.513	1	62.07	B	C
ATOM	90	CB	VAL	B	143	-50.912	119.548	312.839	1	59.72	B	C
ATOM	91	CG1	VAL	B	143	-50.291	118.91	311.597	1	58.23	B	C
ATOM	92	CG2	VAL	B	143	-49.826	119.777	313.878	1	60.22	B	C
ATOM	93	C	VAL	B	143	-52.532	120.821	311.289	1	64.18	B	C
ATOM	94	O	VAL	B	143	-52.107	121.228	310.182	1	62.74	B	O
ATOM	95	N	CYS	B	144	-53.763	120.315	311.475	1	59.09	B	N
ATOM	96	CA	CYS	B	144	-54.718	120.278	310.371	1	63.47	B	C
ATOM	97	CB	CYS	B	144	-56.053	119.576	310.685	1	69.6	B	C
ATOM	98	SG	CYS	B	144	-57.116	119.848	309.222	1	97.5	B	S
ATOM	99	C	CYS	B	144	-55.006	121.7	309.89	1	59.49	B	C
ATOM	100	O	CYS	B	144	-54.867	121.999	308.706	1	57.47	B	O
ATOM	101	N	ASN	B	145	-55.416	122.553	310.823	1	55.42	B	N
ATOM	102	CA	ASN	B	145	-55.691	123.975	310.574	1	53.43	B	C
ATOM	103	CB	ASN	B	145	-55.699	124.704	311.932	1	53.71	B	C
ATOM	104	CG	ASN	B	145	-56.003	126.183	311.821	1	49.95	B	C
ATOM	105	OD1	ASN	B	145	-55.19	126.963	311.34	1	46.74	B	O
ATOM	106	ND2	ASN	B	145	-57.163	126.583	312.31	1	50.8	B	N
ATOM	107	C	ASN	B	145	-54.727	124.676	309.584	1	53.96	B	C
ATOM	108	O	ASN	B	145	-55.175	125.379	308.675	1	51.83	B	O
ATOM	109	N	ALA	B	146	-53.417	124.491	309.757	1	50.86	B	N
ATOM	110	CA	ALA	B	146	-52.456	125.037	308.794	1	52.17	B	C
ATOM	111	CB	ALA	B	146	-51.04	124.819	309.288	1	50.23	B	C
ATOM	112	C	ALA	B	146	-52.623	124.471	307.364	1	54.1	B	C
ATOM	113	O	ALA	B	146	-52.5	125.182	306.372	1	54.43	B	O
ATOM	114	N	GLN	B	147	-52.885	123.18	307.273	1	58.23	B	N
ATOM	115	CA	GLN	B	147	-53.031	122.528	305.993	1	64.19	B	C
ATOM	116	CB	GLN	B	147	-52.957	121.012	306.183	1	73.62	B	C
ATOM	117	CG	GLN	B	147	-51.562	120.53	306.527	1	71.65	B	C
ATOM	118	CD	GLN	B	147	-50.653	120.72	305.349	1	80.04	B	C
ATOM	119	OE1	GLN	B	147	-49.954	121.729	305.249	1	92.1	B	O
ATOM	120	NE2	GLN	B	147	-50.722	119.802	304.402	1	85.13	B	N
ATOM	121	C	GLN	B	147	-54.318	122.948	305.32	1	60.26	B	C
ATOM	122	O	GLN	B	147	-54.354	123.145	304.108	1	64.91	B	O
ATOM	123	N	LEU	B	148	-55.36	123.104	306.125	1	59.33	B	N
ATOM	124	CA	LEU	B	148	-56.659	123.563	305.654	1	56	B	C
ATOM	125	CB	LEU	B	148	-57.693	123.414	306.77	1	56.58	B	C
ATOM	126	CG	LEU	B	148	-59.131	123.862	306.512	1	57.94	B	C
ATOM	127	CD1	LEU	B	148	-59.632	123.267	305.207	1	62.63	B	C
ATOM	128	CD2	LEU	B	148	-60.022	123.452	307.679	1	53.02	B	C
ATOM	129	C	LEU	B	148	-56.572	125.007	305.179	1	53.14	B	C
ATOM	130	O	LEU	B	148	-57.066	125.337	304.128	1	58.82	B	O
ATOM	131	N	ALA	B	149	-55.904	125.853	305.944	1	51.32	B	N
ATOM	132	CA	ALA	B	149	-55.746	127.255	305.596	1	50.64	B	C
ATOM	133	CB	ALA	B	149	-55.023	127.965	306.724	1	53.63	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	134	C	ALA	B	149	-54.997	127.5	304.276	1	56.15	B	C
ATOM	135	O	ALA	B	149	-55.369	128.399	303.517	1	66.81	B	O
ATOM	136	N	SER	B	150	-53.936	126.728	304.018	1	57.08	B	N
ATOM	137	CA	SER	B	150	-53.209	126.803	302.748	1	53.14	B	C
ATOM	138	CB	SER	B	150	-52.069	125.81	302.666	1	49.72	B	C
ATOM	139	OG	SER	B	150	-50.935	126.365	303.263	1	54.63	B	O
ATOM	140	C	SER	B	150	-54.089	126.592	301.551	1	54.52	B	C
ATOM	141	O	SER	B	150	-53.951	127.335	300.576	1	56.23	B	O
ATOM	142	N	TYR	B	151	-54.967	125.581	301.584	1	54.64	B	N
ATOM	143	CA	TYR	B	151	-55.796	125.35	300.395	1	53.37	B	C
ATOM	144	CB	TYR	B	151	-56.21	123.896	300.182	1	58.03	B	C
ATOM	145	CG	TYR	B	151	-57.406	123.287	300.863	1	56.75	B	C
ATOM	146	CD1	TYR	B	151	-58.7	123.525	300.41	1	58.01	B	C
ATOM	147	CE1	TYR	B	151	-59.788	122.877	300.986	1	63.28	B	C
ATOM	148	CZ	TYR	B	151	-59.572	121.937	302.02	1	67.74	B	C
ATOM	149	OH	TYR	B	151	-60.609	121.278	302.659	1	68.1	B	O
ATOM	150	CE2	TYR	B	151	-58.288	121.661	302.441	1	63.09	B	C
ATOM	151	CD2	TYR	B	151	-57.22	122.318	301.842	1	60.47	B	C
ATOM	152	C	TYR	B	151	-56.897	126.363	300.31	1	49.16	B	C
ATOM	153	O	TYR	B	151	-56.941	127.091	299.348	1	55.13	B	O
ATOM	154	N	LEU	B	152	-57.698	126.495	301.354	1	46.29	B	N
ATOM	155	CA	LEU	B	152	-58.652	127.593	301.468	1	45.45	B	C
ATOM	156	CB	LEU	B	152	-58.981	127.859	302.937	1	45.01	B	C
ATOM	157	CG	LEU	B	152	-59.957	126.916	303.645	1	46.79	B	C
ATOM	158	CD1	LEU	B	152	-60.061	127.263	305.115	1	45.66	B	C
ATOM	159	CD2	LEU	B	152	-61.34	126.971	303.027	1	50.5	B	C
ATOM	160	C	LEU	B	152	-58.202	128.897	300.801	1	48.82	B	C
ATOM	161	O	LEU	B	152	-59.019	129.565	300.152	1	48.96	B	O
ATOM	162	N	LYS	B	153	-56.923	129.256	300.951	1	52.08	B	N
ATOM	163	CA	LYS	B	153	-56.384	130.445	300.269	1	58.31	B	C
ATOM	164	CB	LYS	B	153	-55.026	130.882	300.841	1	62.01	B	C
ATOM	165	CG	LYS	B	153	-54.639	132.322	300.492	1	66.94	B	C
ATOM	166	CD	LYS	B	153	-53.703	132.458	299.304	1	69.54	B	C
ATOM	167	CE	LYS	B	153	-53.865	133.829	298.663	1	74.79	B	C
ATOM	168	NZ	LYS	B	153	-52.816	134.116	297.646	1	75.06	B	N
ATOM	169	C	LYS	B	153	-56.3	130.238	298.757	1	57.97	B	C
ATOM	170	O	LYS	B	153	-57.018	130.897	298.01	1	62.27	B	O
ATOM	171	N	ALA	B	154	-55.468	129.292	298.317	1	54.07	B	N
ATOM	172	CA	ALA	B	154	-55.398	128.879	296.903	1	52.02	B	C
ATOM	173	CB	ALA	B	154	-54.769	127.497	296.805	1	50.22	B	C
ATOM	174	C	ALA	B	154	-56.759	128.835	296.217	1	50.47	B	C
ATOM	175	O	ALA	B	154	-56.89	129.103	295.024	1	50.18	B	O
ATOM	176	N	CYS	B	155	-57.768	128.486	296.993	1	55.43	B	N
ATOM	177	CA	CYS	B	155	-59.036	128.086	296.468	1	63.72	B	C
ATOM	178	CB	CYS	B	155	-59.298	126.709	297.034	1	64.88	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	179	SG	CYS	B	155	-60.192	125.791	295.818	1	89.8	B	S
ATOM	180	C	CYS	B	155	-60.195	129.084	296.738	1	63.29	B	C
ATOM	181	O	CYS	B	155	-61.374	128.753	296.613	1	55.05	B	O
ATOM	182	N	SER	B	156	-59.822	130.327	297.034	1	68.62	B	N
ATOM	183	CA	SER	B	156	-60.745	131.355	297.467	1	67.78	B	C
ATOM	184	CB	SER	B	156	-60.088	132.249	298.528	1	69.4	B	C
ATOM	185	OG	SER	B	156	-59.451	133.385	297.947	1	64.78	B	O
ATOM	186	C	SER	B	156	-61.119	132.206	296.284	1	69.81	B	C
ATOM	187	O	SER	B	156	-60.371	132.277	295.31	1	62.26	B	O
ATOM	188	N	ALA	B	157	-62.267	132.873	296.412	1	86.55	B	N
ATOM	189	CA	ALA	B	157	-62.77	133.837	295.435	1	90.56	B	C
ATOM	190	CB	ALA	B	157	-64.29	133.79	295.391	1	91.03	B	C
ATOM	191	C	ALA	B	157	-62.305	135.229	295.831	1	101.63	B	C
ATOM	192	O	ALA	B	157	-61.772	135.429	296.929	1	115.39	B	O
ATOM	193	N	ASN	B	158	-62.525	136.186	294.937	1	112.35	B	N
ATOM	194	CA	ASN	B	158	-62.06	137.566	295.112	1	117.05	B	C
ATOM	195	CB	ASN	B	158	-60.511	137.595	295.206	1	118.52	B	C
ATOM	196	CG	ASN	B	158	-59.909	138.984	294.982	1	124.01	B	C
ATOM	197	OD1	ASN	B	158	-60.564	140.012	295.171	1	118.09	B	O
ATOM	198	ND2	ASN	B	158	-58.639	139.012	294.581	1	128.32	B	N
ATOM	199	C	ASN	B	158	-62.579	138.44	293.956	1	120.23	B	C
ATOM	200	O	ASN	B	158	-63.445	139.302	294.157	1	95.1	B	O
ATOM	201	N	GLY	B	159	-62.049	138.185	292.755	1	129.47	B	N
ATOM	202	CA	GLY	B	159	-62.34	138.992	291.572	1	126.21	B	C
ATOM	203	C	GLY	B	159	-61.699	138.498	290.271	1	124.62	B	C
ATOM	204	O	GLY	B	159	-60.778	139.163	289.782	1	109.17	B	O
ATOM	205	N	ASN	B	160	-62.129	137.363	289.684	1	121.39	B	N
ATOM	206	CA	ASN	B	160	-63.109	136.391	290.235	1	118.35	B	C
ATOM	207	CB	ASN	B	160	-64.548	136.968	290.334	1	117.4	B	C
ATOM	208	CG	ASN	B	160	-65.333	136.412	291.533	1	109.4	B	C
ATOM	209	OD1	ASN	B	160	-65.919	135.329	291.455	1	100.97	B	O
ATOM	210	ND2	ASN	B	160	-65.351	137.157	292.64	1	101.5	B	N
ATOM	211	C	ASN	B	160	-63.182	135.079	289.386	1	114.03	B	C
ATOM	212	O	ASN	B	160	-63.201	135.144	288.157	1	98.74	B	O
ATOM	213	N	PRO	B	161	-63.212	133.897	290.005	1	120.45	B	N
ATOM	214	CA	PRO	B	161	-62.842	133.687	291.393	1	119.71	B	C
ATOM	215	CB	PRO	B	161	-63.888	132.664	291.893	1	121.92	B	C
ATOM	216	CG	PRO	B	161	-64.444	132.015	290.655	1	128.1	B	C
ATOM	217	CD	PRO	B	161	-63.85	132.695	289.442	1	125.18	B	C
ATOM	218	C	PRO	B	161	-61.41	133.172	291.373	1	104.06	B	C
ATOM	219	O	PRO	B	161	-60.478	133.978	291.259	1	106.22	B	O
ATOM	220	N	CYS	B	162	-61.243	131.856	291.361	1	81.7	B	N
ATOM	221	CA	CYS	B	162	-59.981	131.242	291.664	1	74.6	B	C
ATOM	222	CB	CYS	B	162	-60.229	129.932	292.4	1	75.15	B	C
ATOM	223	SG	CYS	B	162	-61.275	128.805	291.433	1	77.37	B	S

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	224	C	CYS	B	162	-59.233	130.936	290.388	1	68.71	B	C
ATOM	225	O	CYS	B	162	-59.821	130.735	289.327	1	66.33	B	O
ATOM	226	N	ASP	B	163	-57.918	130.889	290.514	1	65.5	B	N
ATOM	227	CA	ASP	B	163	-57.104	130.175	289.576	1	63.04	B	C
ATOM	228	CB	ASP	B	163	-55.629	130.547	289.786	1	69.6	B	C
ATOM	229	CG	ASP	B	163	-54.706	130.018	288.694	1	79.72	B	C
ATOM	230	OD1	ASP	B	163	-55.178	129.334	287.753	1	94.35	B	O
ATOM	231	OD2	ASP	B	163	-53.487	130.293	288.78	1	80.59	B	O
ATOM	232	C	ASP	B	163	-57.421	128.699	289.866	1	54.46	B	C
ATOM	233	O	ASP	B	163	-57.193	128.192	290.97	1	49.78	B	O
ATOM	234	N	LEU	B	164	-58.014	128.038	288.884	1	49.69	B	N
ATOM	235	CA	LEU	B	164	-58.268	126.599	288.957	1	48.84	B	C
ATOM	236	CB	LEU	B	164	-58.899	126.123	287.642	1	44.58	B	C
ATOM	237	CG	LEU	B	164	-59.293	124.634	287.557	1	46.34	B	C
ATOM	238	CD1	LEU	B	164	-60.249	124.108	288.647	1	43.45	B	C
ATOM	239	CD2	LEU	B	164	-59.87	124.432	286.178	1	47.97	B	C
ATOM	240	C	LEU	B	164	-57.013	125.738	289.288	1	51.19	B	C
ATOM	241	O	LEU	B	164	-57.031	124.944	290.246	1	52.68	B	O
ATOM	242	N	LYS	B	165	-55.937	125.911	288.519	1	51.82	B	N
ATOM	243	CA	LYS	B	165	-54.744	125.063	288.672	1	53.52	B	C
ATOM	244	CB	LYS	B	165	-53.753	125.208	287.513	1	57.94	B	C
ATOM	245	CG	LYS	B	165	-54.385	125.147	286.123	1	62.53	B	C
ATOM	246	CD	LYS	B	165	-53.386	124.786	285.021	1	62.61	B	C
ATOM	247	CE	LYS	B	165	-53.77	125.426	283.695	1	67.97	B	C
ATOM	248	NZ	LYS	B	165	-53.394	124.61	282.511	1	77.13	B	N
ATOM	249	C	LYS	B	165	-54.054	125.35	289.988	1	49.2	B	C
ATOM	250	O	LYS	B	165	-53.554	124.435	290.645	1	48.9	B	O
ATOM	251	N	GLN	B	166	-54.061	126.609	290.393	1	47.59	B	N
ATOM	252	CA	GLN	B	166	-53.61	126.968	291.738	1	51.03	B	C
ATOM	253	CB	GLN	B	166	-53.737	128.472	291.934	1	56.49	B	C
ATOM	254	CG	GLN	B	166	-52.945	129.08	293.079	1	59.5	B	C
ATOM	255	CD	GLN	B	166	-52.584	130.537	292.795	1	67.68	B	C
ATOM	256	OE1	GLN	B	166	-51.995	130.882	291.739	1	62.53	B	O
ATOM	257	NE2	GLN	B	166	-52.941	131.409	293.724	1	75.89	B	N
ATOM	258	C	GLN	B	166	-54.408	126.201	292.831	1	51.66	B	C
ATOM	259	O	GLN	B	166	-53.801	125.614	293.745	1	50.54	B	O
ATOM	260	N	CYS	B	167	-55.745	126.17	292.721	1	47.42	B	N
ATOM	261	CA	CYS	B	167	-56.533	125.424	293.688	1	47.89	B	C
ATOM	262	CB	CYS	B	167	-58.034	125.686	293.555	1	54.12	B	C
ATOM	263	SG	CYS	B	167	-58.864	124.695	294.815	1	65.11	B	S
ATOM	264	C	CYS	B	167	-56.243	123.91	293.659	1	44.15	B	C
ATOM	265	O	CYS	B	167	-55.989	123.306	294.71	1	34.79	B	O
ATOM	266	N	GLN	B	168	-56.277	123.311	292.466	1	45.3	B	N
ATOM	267	CA	GLN	B	168	-56.016	121.857	292.293	1	48.09	B	C
ATOM	268	CB	GLN	B	168	-56.03	121.513	290.795	1	49.76	B	C

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ATOM	269	CG	GLN	B	168	-57.42	121.526	290.144	1	53.88	B	C
ATOM	270	CD	GLN	B	168	-57.434	121.405	288.609	1	54.92	B	C
ATOM	271	OE1	GLN	B	168	-56.403	121.284	287.959	1	57.23	B	O
ATOM	272	NE2	GLN	B	168	-58.623	121.451	288.033	1	61.44	B	N
ATOM	273	C	GLN	B	168	-54.688	121.367	292.984	1	48.51	B	C
ATOM	274	O	GLN	B	168	-54.661	120.421	293.801	1	39.79	B	O
ATOM	275	N	ALA	B	169	-53.6	122.063	292.674	1	49.61	B	N
ATOM	276	CA	ALA	B	169	-52.307	121.845	293.321	1	47.52	B	C
ATOM	277	CB	ALA	B	169	-51.339	122.909	292.854	1	47.12	B	C
ATOM	278	C	ALA	B	169	-52.416	121.86	294.846	1	52.79	B	C
ATOM	279	O	ALA	B	169	-51.918	120.957	295.534	1	56.66	B	O
ATOM	280	N	ALA	B	170	-53.088	122.875	295.375	1	54.77	B	N
ATOM	281	CA	ALA	B	170	-53.269	122.989	296.812	1	53.01	B	C
ATOM	282	CB	ALA	B	170	-53.914	124.318	297.152	1	53.57	B	C
ATOM	283	C	ALA	B	170	-54.065	121.825	297.411	1	52.44	B	C
ATOM	284	O	ALA	B	170	-53.755	121.381	298.502	1	55.45	B	O
ATOM	285	N	ILE	B	171	-55.054	121.307	296.688	1	54.82	B	N
ATOM	286	CA	ILE	B	171	-55.837	120.156	297.174	1	52.57	B	C
ATOM	287	CB	ILE	B	171	-57.166	119.958	296.411	1	51.92	B	C
ATOM	288	CG1	ILE	B	171	-58.007	121.229	296.393	1	50.43	B	C
ATOM	289	CD1	ILE	B	171	-59.01	121.263	295.275	1	49.62	B	C
ATOM	290	CG2	ILE	B	171	-57.968	118.836	297.066	1	52.46	B	C
ATOM	291	C	ILE	B	171	-55.034	118.849	297.045	1	46.7	B	C
ATOM	292	O	ILE	B	171	-55.008	118.044	297.985	1	36.42	B	O
ATOM	293	N	ARG	B	172	-54.411	118.636	295.879	1	45.06	B	N
ATOM	294	CA	ARG	B	172	-53.45	117.533	295.722	1	48.33	B	C
ATOM	295	CB	ARG	B	172	-52.712	117.59	294.393	1	51.47	B	C
ATOM	296	CG	ARG	B	172	-53.555	117.228	293.195	1	55.95	B	C
ATOM	297	CD	ARG	B	172	-52.781	117.341	291.901	1	61.48	B	C
ATOM	298	NE	ARG	B	172	-53.039	118.605	291.191	1	67.4	B	N
ATOM	299	CZ	ARG	B	172	-52.124	119.504	290.807	1	71.92	B	C
ATOM	300	NH1	ARG	B	172	-50.821	119.337	291.062	1	80.25	B	N
ATOM	301	NH2	ARG	B	172	-52.519	120.608	290.153	1	72.77	B	N
ATOM	302	C	ARG	B	172	-52.448	117.601	296.858	1	51.42	B	C
ATOM	303	O	ARG	B	172	-52.333	116.633	297.637	1	49.93	B	O
ATOM	304	N	PHE	B	173	-51.786	118.764	296.991	1	52.16	B	N
ATOM	305	CA	PHE	B	173	-50.882	119.024	298.14	1	56.97	B	C
ATOM	306	CB	PHE	B	173	-50.342	120.46	298.191	1	53.05	B	C
ATOM	307	CG	PHE	B	173	-49.247	120.627	299.199	1	52.02	B	C
ATOM	308	CD1	PHE	B	173	-49.538	120.853	300.547	1	55.69	B	C
ATOM	309	CE1	PHE	B	173	-48.522	120.967	301.497	1	54.31	B	C
ATOM	310	CZ	PHE	B	173	-47.199	120.851	301.105	1	54.7	B	C
ATOM	311	CE2	PHE	B	173	-46.893	120.606	299.771	1	56.75	B	C
ATOM	312	CD2	PHE	B	173	-47.918	120.481	298.828	1	56.5	B	C
ATOM	313	C	PHE	B	173	-51.482	118.714	299.516	1	54.39	B	C

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ATOM	314	O	PHE	B	173	-50.828	118.113	300.345	1	57.42	B	O
ATOM	315	N	PHE	B	174	-52.697	119.162	299.762	1	55.06	B	N
ATOM	316	CA	PHE	B	174	-53.349	118.94	301.058	1	58.74	B	C
ATOM	317	CB	PHE	B	174	-54.736	119.593	301.07	1	56.11	B	C
ATOM	318	CG	PHE	B	174	-55.526	119.326	302.301	1	56.42	B	C
ATOM	319	CD1	PHE	B	174	-55.301	120.067	303.458	1	59.7	B	C
ATOM	320	CE1	PHE	B	174	-56.055	119.834	304.605	1	58.31	B	C
ATOM	321	CZ	PHE	B	174	-57.05	118.85	304.6	1	57.98	B	C
ATOM	322	CE2	PHE	B	174	-57.284	118.113	303.455	1	58.58	B	C
ATOM	323	CD2	PHE	B	174	-56.521	118.35	302.311	1	60.44	B	C
ATOM	324	C	PHE	B	174	-53.454	117.454	301.376	1	60.85	B	C
ATOM	325	O	PHE	B	174	-52.793	116.973	302.299	1	52.64	B	O
ATOM	326	N	TYR	B	175	-54.248	116.735	300.577	1	65.13	B	N
ATOM	327	CA	TYR	B	175	-54.523	115.314	300.815	1	62.75	B	C
ATOM	328	CB	TYR	B	175	-55.555	114.759	299.818	1	59.5	B	C
ATOM	329	CG	TYR	B	175	-56.99	115.242	300.001	1	59.7	B	C
ATOM	330	CD1	TYR	B	175	-57.731	114.937	301.161	1	61.23	B	C
ATOM	331	CE1	TYR	B	175	-59.053	115.368	301.313	1	57.23	B	C
ATOM	332	CZ	TYR	B	175	-59.653	116.083	300.285	1	62.17	B	C
ATOM	333	OH	TYR	B	175	-60.956	116.549	300.366	1	67.78	B	O
ATOM	334	CE2	TYR	B	175	-58.941	116.371	299.134	1	58.86	B	C
ATOM	335	CD2	TYR	B	175	-57.631	115.954	298.995	1	57.09	B	C
ATOM	336	C	TYR	B	175	-53.239	114.474	300.762	1	60.04	B	C
ATOM	337	O	TYR	B	175	-53.188	113.369	301.31	1	56.63	B	O
ATOM	338	N	GLN	B	176	-52.205	115.002	300.119	1	57.99	B	N
ATOM	339	CA	GLN	B	176	-50.907	114.331	300.108	1	64.5	B	C
ATOM	340	CB	GLN	B	176	-50.153	114.741	298.839	1	67.75	B	C
ATOM	341	CG	GLN	B	176	-49.132	113.734	298.363	1	77.72	B	C
ATOM	342	CD	GLN	B	176	-49.213	113.502	296.866	1	87.97	B	C
ATOM	343	OE1	GLN	B	176	-49.267	114.456	296.077	1	99.46	B	O
ATOM	344	NE2	GLN	B	176	-49.222	112.23	296.461	1	89.81	B	N
ATOM	345	C	GLN	B	176	-50.028	114.545	301.372	1	62.96	B	C
ATOM	346	O	GLN	B	176	-48.986	113.922	301.473	1	62.3	B	O
ATOM	347	N	ASN	B	177	-50.47	115.374	302.328	1	65.71	B	N
ATOM	348	CA	ASN	B	177	-49.698	115.794	303.517	1	69.29	B	C
ATOM	349	CB	ASN	B	177	-49.239	117.23	303.308	1	70.44	B	C
ATOM	350	CG	ASN	B	177	-47.967	117.319	302.558	1	70.69	B	C
ATOM	351	OD1	ASN	B	177	-47.925	117.836	301.442	1	72.88	B	O
ATOM	352	ND2	ASN	B	177	-46.898	116.826	303.175	1	75.45	B	N
ATOM	353	C	ASN	B	177	-50.506	115.746	304.84	1	78.71	B	C
ATOM	354	O	ASN	B	177	-50.557	116.736	305.606	1	70.99	B	O
ATOM	355	N	ILE	B	178	-51.121	114.597	305.12	1	82.08	B	N
ATOM	356	CA	ILE	B	178	-52.176	114.521	306.132	1	77.51	B	C
ATOM	357	CB	ILE	B	178	-53.354	115.458	305.705	1	82.03	B	C
ATOM	358	CG1	ILE	B	178	-54.343	115.698	306.836	1	84.2	B	C

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ATOM	359	CD1	ILE	B	178	-55.084	117.008	306.651	1	86.06	B	C
ATOM	360	CG2	ILE	B	178	-54.069	114.965	304.441	1	84.51	B	C
ATOM	361	C	ILE	B	178	-52.604	113.042	306.289	1	75.9	B	C
ATOM	362	O	ILE	B	178	-52.759	112.349	305.284	1	84.83	B	O
ATOM	363	N	PRO	B	179	-52.77	112.542	307.528	1	69.59	B	N
ATOM	364	CA	PRO	B	179	-53.172	111.155	307.724	1	73.27	B	C
ATOM	365	CB	PRO	B	179	-53.444	111.088	309.224	1	75.64	B	C
ATOM	366	CG	PRO	B	179	-52.469	112.036	309.79	1	77.94	B	C
ATOM	367	CD	PRO	B	179	-52.467	113.182	308.817	1	78.14	B	C
ATOM	368	C	PRO	B	179	-54.426	110.717	306.964	1	78.47	B	C
ATOM	369	O	PRO	B	179	-55.383	111.484	306.841	1	85.64	B	O
ATOM	370	N	PHE	B	180	-54.403	109.477	306.483	1	76.34	B	N
ATOM	371	CA	PHE	B	180	-55.496	108.913	305.698	1	76.23	B	C
ATOM	372	CB	PHE	B	180	-55.079	107.541	305.121	1	78.92	B	C
ATOM	373	CG	PHE	B	180	-56.225	106.722	304.585	1	76.02	B	C
ATOM	374	CD1	PHE	B	180	-56.682	106.908	303.291	1	75.2	B	C
ATOM	375	CE1	PHE	B	180	-57.736	106.154	302.809	1	77.41	B	C
ATOM	376	CZ	PHE	B	180	-58.341	105.205	303.62	1	74.56	B	C
ATOM	377	CE2	PHE	B	180	-57.898	105.019	304.912	1	69.93	B	C
ATOM	378	CD2	PHE	B	180	-56.85	105.772	305.387	1	71.35	B	C
ATOM	379	C	PHE	B	180	-56.806	108.828	306.497	1	77.13	B	C
ATOM	380	O	PHE	B	180	-57.879	109.071	305.946	1	80.21	B	O
ATOM	381	N	ASN	B	181	-56.723	108.476	307.779	1	78.13	B	N
ATOM	382	CA	ASN	B	181	-57.913	108.492	308.654	1	80.27	B	C
ATOM	383	CB	ASN	B	181	-57.602	107.951	310.055	1	80.51	B	C
ATOM	384	CG	ASN	B	181	-56.424	108.657	310.704	1	90.22	B	C
ATOM	385	OD1	ASN	B	181	-55.288	108.508	310.249	1	94.47	B	O
ATOM	386	ND2	ASN	B	181	-56.681	109.432	311.764	1	92.29	B	N
ATOM	387	C	ASN	B	181	-58.585	109.871	308.742	1	78.32	B	C
ATOM	388	O	ASN	B	181	-59.807	109.945	308.815	1	80.06	B	O
ATOM	389	N	ILE	B	182	-57.79	110.946	308.708	1	75.43	B	N
ATOM	390	CA	ILE	B	182	-58.328	112.312	308.658	1	77.47	B	C
ATOM	391	CB	ILE	B	182	-57.264	113.385	309.03	1	84.7	B	C
ATOM	392	CG1	ILE	B	182	-57.167	113.568	310.563	1	86.24	B	C
ATOM	393	CD1	ILE	B	182	-55.956	112.902	311.178	1	92.3	B	C
ATOM	394	CG2	ILE	B	182	-57.566	114.738	308.383	1	84.99	B	C
ATOM	395	C	ILE	B	182	-58.93	112.642	307.293	1	78.18	B	C
ATOM	396	O	ILE	B	182	-60.046	113.165	307.208	1	77.19	B	O
ATOM	397	N	ALA	B	183	-58.179	112.383	306.229	1	83.34	B	N
ATOM	398	CA	ALA	B	183	-58.654	112.678	304.869	1	79.2	B	C
ATOM	399	CB	ALA	B	183	-57.567	112.393	303.849	1	77.57	B	C
ATOM	400	C	ALA	B	183	-59.961	111.939	304.511	1	75.52	B	C
ATOM	401	O	ALA	B	183	-60.795	112.483	303.792	1	79.33	B	O
ATOM	402	N	GLN	B	184	-60.143	110.722	305.025	1	72.74	B	N
ATOM	403	CA	GLN	B	184	-61.413	110.005	304.894	1	69.57	B	C

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ATOM	404	CB	GLN	B	184	-61.448	108.778	305.797	1	78.28	B	C
ATOM	405	CG	GLN	B	184	-60.853	107.501	305.22	1	84.52	B	C
ATOM	406	CD	GLN	B	184	-61.194	106.284	306.07	1	93.79	B	C
ATOM	407	OE1	GLN	B	184	-61.691	105.285	305.559	1	99.14	B	O
ATOM	408	NE2	GLN	B	184	-60.948	106.369	307.38	1	100.15	B	N
ATOM	409	C	GLN	B	184	-62.549	110.895	305.311	1	68.23	B	C
ATOM	410	O	GLN	B	184	-63.469	111.157	304.551	1	63.6	B	O
ATOM	411	N	MET	B	185	-62.455	111.394	306.534	1	75.99	B	N
ATOM	412	CA	MET	B	185	-63.57	112.119	307.148	1	77.29	B	C
ATOM	413	CB	MET	B	185	-63.242	112.486	308.591	1	77.57	B	C
ATOM	414	CG	MET	B	185	-63.062	111.279	309.497	1	77.35	B	C
ATOM	415	SD	MET	B	185	-62.192	111.781	310.978	1	93.62	B	S
ATOM	416	CE	MET	B	185	-62.038	110.23	311.875	1	100.39	B	C
ATOM	417	C	MET	B	185	-63.963	113.352	306.348	1	75.88	B	C
ATOM	418	O	MET	B	185	-65.146	113.604	306.189	1	79.26	B	O
ATOM	419	N	LEU	B	186	-62.969	114.073	305.817	1	77.76	B	N
ATOM	420	CA	LEU	B	186	-63.188	115.287	305.01	1	75.01	B	C
ATOM	421	CB	LEU	B	186	-61.872	116.009	304.752	1	76.7	B	C
ATOM	422	CG	LEU	B	186	-61.257	116.639	306.003	1	83.14	B	C
ATOM	423	CD1	LEU	B	186	-59.742	116.718	305.93	1	85.01	B	C
ATOM	424	CD2	LEU	B	186	-61.841	118.022	306.209	1	85.21	B	C
ATOM	425	C	LEU	B	186	-63.836	115.008	303.674	1	77.16	B	C
ATOM	426	O	LEU	B	186	-64.838	115.632	303.321	1	80.51	B	O
ATOM	427	N	ALA	B	187	-63.246	114.089	302.92	1	74.18	B	N
ATOM	428	CA	ALA	B	187	-63.726	113.791	301.58	1	75.9	B	C
ATOM	429	CB	ALA	B	187	-62.758	112.855	300.885	1	77.36	B	C
ATOM	430	C	ALA	B	187	-65.143	113.192	301.594	1	79.76	B	C
ATOM	431	O	ALA	B	187	-66.001	113.588	300.804	1	84.89	B	O
ATOM	432	N	PHE	B	188	-65.38	112.268	302.521	1	80.62	B	N
ATOM	433	CA	PHE	B	188	-66.631	111.509	302.596	1	72.21	B	C
ATOM	434	CB	PHE	B	188	-66.311	110.063	302.98	1	64.88	B	C
ATOM	435	CG	PHE	B	188	-65.358	109.41	302.045	1	64.13	B	C
ATOM	436	CD1	PHE	B	188	-65.672	109.297	300.694	1	69.24	B	C
ATOM	437	CE1	PHE	B	188	-64.79	108.697	299.799	1	71.6	B	C
ATOM	438	CZ	PHE	B	188	-63.577	108.216	300.251	1	72.11	B	C
ATOM	439	CE2	PHE	B	188	-63.258	108.327	301.604	1	72.5	B	C
ATOM	440	CD2	PHE	B	188	-64.149	108.919	302.491	1	63.9	B	C
ATOM	441	C	PHE	B	188	-67.682	112.058	303.555	1	70.15	B	C
ATOM	442	O	PHE	B	188	-68.725	111.428	303.724	1	74.08	B	O
ATOM	443	N	CYS	B	189	-67.444	113.208	304.182	1	65.71	B	N
ATOM	444	CA	CYS	B	189	-68.452	113.734	305.084	1	69.93	B	C
ATOM	445	CB	CYS	B	189	-67.915	114.856	305.955	1	70.2	B	C
ATOM	446	SG	CYS	B	189	-67.326	116.296	305.056	1	80.13	B	S
ATOM	447	C	CYS	B	189	-69.66	114.221	304.294	1	69.46	B	C
ATOM	448	O	CYS	B	189	-69.55	114.552	303.114	1	68.16	B	O

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ATOM	449	N	ASP	B	190	-70.809	114.266	304.957	1	69.74	B	N
ATOM	450	CA	ASP	B	190	-72.005	114.818	304.35	1	74.21	B	C
ATOM	451	CB	ASP	B	190	-72.856	113.692	303.749	1	72.21	B	C
ATOM	452	CG	ASP	B	190	-73.313	113.999	302.332	1	74.08	B	C
ATOM	453	OD1	ASP	B	190	-73.596	115.18	302.019	1	68.45	B	O
ATOM	454	OD2	ASP	B	190	-73.381	113.05	301.525	1	69.87	B	O
ATOM	455	C	ASP	B	190	-72.814	115.641	305.35	1	79.89	B	C
ATOM	456	O	ASP	B	190	-72.423	115.786	306.506	1	80.24	B	O
ATOM	457	N	CYS	B	191	-73.916	116.215	304.869	1	83.96	B	N
ATOM	458	CA	CYS	B	191	-74.873	116.929	305.707	1	85.64	B	C
ATOM	459	CB	CYS	B	191	-74.756	118.439	305.494	1	86.63	B	C
ATOM	460	SG	CYS	B	191	-73.095	119.117	305.695	1	91.52	B	S
ATOM	461	C	CYS	B	191	-76.282	116.506	305.352	1	91.42	B	C
ATOM	462	O	CYS	B	191	-76.513	115.892	304.31	1	93.23	B	O
ATOM	463	N	ALA	B	192	-77.217	116.843	306.236	1	101.58	B	N
ATOM	464	CA	ALA	B	192	-78.648	116.759	305.953	1	106.2	B	C
ATOM	465	CB	ALA	B	192	-79.437	116.581	307.236	1	104.55	B	C
ATOM	466	C	ALA	B	192	-79.04	118.058	305.272	1	113.18	B	C
ATOM	467	O	ALA	B	192	-78.356	119.065	305.442	1	119.67	B	O
ATOM	468	N	GLN	B	193	-80.134	118.032	304.512	1	111.91	B	N
ATOM	469	CA	GLN	B	193	-80.621	119.212	303.779	1	107.4	B	C
ATOM	470	CB	GLN	B	193	-81.914	118.883	303.033	1	115.38	B	C
ATOM	471	CG	GLN	B	193	-81.795	117.821	301.941	1	116.94	B	C
ATOM	472	CD	GLN	B	193	-82.971	116.845	301.922	1	113.83	B	C
ATOM	473	OE1	GLN	B	193	-82.789	115.651	301.677	1	119.52	B	O
ATOM	474	NE2	GLN	B	193	-84.18	117.347	302.183	1	104.19	B	N
ATOM	475	C	GLN	B	193	-80.906	120.371	304.733	1	102.35	B	C
ATOM	476	O	GLN	B	193	-80.472	121.495	304.501	1	102.54	B	O
ATOM	477	N	SER	B	194	-81.641	120.067	305.802	1	100.22	B	N
ATOM	478	CA	SER	B	194	-82.042	121.03	306.847	1	96.54	B	C
ATOM	479	CB	SER	B	194	-82.751	120.258	307.956	1	92.99	B	C
ATOM	480	OG	SER	B	194	-81.955	119.138	308.323	1	92.29	B	O
ATOM	481	C	SER	B	194	-80.896	121.838	307.481	1	95.88	B	C
ATOM	482	O	SER	B	194	-81.039	123.033	307.744	1	100.6	B	O
ATOM	483	N	ASP	B	195	-79.776	121.161	307.72	1	92.56	B	N
ATOM	484	CA	ASP	B	195	-78.623	121.691	308.459	1	82.3	B	C
ATOM	485	CB	ASP	B	195	-77.735	120.496	308.845	1	80.83	B	C
ATOM	486	CG	ASP	B	195	-76.653	120.847	309.826	1	81.43	B	C
ATOM	487	OD1	ASP	B	195	-76.373	122.052	310.026	1	85.91	B	O
ATOM	488	OD2	ASP	B	195	-76.078	119.892	310.403	1	72.71	B	O
ATOM	489	C	ASP	B	195	-77.829	122.709	307.633	1	84.31	B	C
ATOM	490	O	ASP	B	195	-76.898	122.339	306.915	1	85.83	B	O
ATOM	491	N	ILE	B	196	-78.182	123.99	307.751	1	91.27	B	N
ATOM	492	CA	ILE	B	196	-77.588	125.049	306.899	1	93.59	B	C
ATOM	493	CB	ILE	B	196	-78.329	126.419	307.005	1	94.28	B	C

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ATOM	494	CG1	ILE	B	196	-79.797	126.293	306.545	1	100.66	B	C
ATOM	495	CD1	ILE	B	196	-80.023	125.949	305.075	1	101.74	B	C
ATOM	496	CG2	ILE	B	196	-77.624	127.513	306.19	1	87.66	B	C
ATOM	497	C	ILE	B	196	-76.081	125.247	307.107	1	90.8	B	C
ATOM	498	O	ILE	B	196	-75.342	125.251	306.117	1	92.09	B	O
ATOM	499	N	PRO	B	197	-75.619	125.421	308.368	1	88.15	B	N
ATOM	500	CA	PRO	B	197	-74.179	125.679	308.529	1	89.35	B	C
ATOM	501	CB	PRO	B	197	-74.035	125.965	310.032	1	86.9	B	C
ATOM	502	CG	PRO	B	197	-75.185	125.265	310.658	1	85.72	B	C
ATOM	503	CD	PRO	B	197	-76.309	125.413	309.672	1	87.03	B	C
ATOM	504	C	PRO	B	197	-73.267	124.527	308.067	1	83.79	B	C
ATOM	505	O	PRO	B	197	-72.124	124.763	307.668	1	86	B	O
ATOM	506	N	CYS	B	198	-73.776	123.302	308.098	1	76.54	B	N
ATOM	507	CA	CYS	B	198	-73.028	122.16	307.606	1	77.7	B	C
ATOM	508	CB	CYS	B	198	-73.702	120.871	308.089	1	76.36	B	C
ATOM	509	SG	CYS	B	198	-72.84	119.325	307.747	1	73.27	B	S
ATOM	510	C	CYS	B	198	-72.88	122.252	306.063	1	76.99	B	C
ATOM	511	O	CYS	B	198	-71.763	122.277	305.548	1	74.17	B	O
ATOM	512	N	GLN	B	199	-73.996	122.317	305.34	1	75.39	B	N
ATOM	513	CA	GLN	B	199	-73.986	122.627	303.897	1	75.18	B	C
ATOM	514	CB	GLN	B	199	-75.38	123.12	303.418	1	85.21	B	C
ATOM	515	CG	GLN	B	199	-76.056	122.254	302.354	1	84.71	B	C
ATOM	516	CD	GLN	B	199	-76.415	120.878	302.866	1	90.21	B	C
ATOM	517	OE1	GLN	B	199	-76.055	119.856	302.266	1	93.28	B	O
ATOM	518	NE2	GLN	B	199	-77.117	120.84	303.992	1	92.1	B	N
ATOM	519	C	GLN	B	199	-72.944	123.682	303.522	1	66.95	B	C
ATOM	520	O	GLN	B	199	-72.257	123.546	302.527	1	67.8	B	O
ATOM	521	N	GLN	B	200	-72.873	124.748	304.312	1	68.89	B	N
ATOM	522	CA	GLN	B	200	-71.863	125.805	304.149	1	70.74	B	C
ATOM	523	CB	GLN	B	200	-72.082	126.909	305.2	1	73.11	B	C
ATOM	524	CG	GLN	B	200	-72.992	128.034	304.733	1	72.34	B	C
ATOM	525	CD	GLN	B	200	-73.771	128.716	305.824	1	69.33	B	C
ATOM	526	OE1	GLN	B	200	-73.503	128.566	307.005	1	62.89	B	O
ATOM	527	NE2	GLN	B	200	-74.751	129.487	305.421	1	76.18	B	N
ATOM	528	C	GLN	B	200	-70.441	125.258	304.263	1	71.16	B	C
ATOM	529	O	GLN	B	200	-69.612	125.488	303.391	1	75.9	B	O
ATOM	530	N	SER	B	201	-70.177	124.53	305.345	1	65.48	B	N
ATOM	531	CA	SER	B	201	-68.887	123.903	305.546	1	61.11	B	C
ATOM	532	CB	SER	B	201	-68.848	123.186	306.885	1	66.49	B	C
ATOM	533	OG	SER	B	201	-68.701	124.135	307.921	1	75.14	B	O
ATOM	534	C	SER	B	201	-68.479	122.935	304.453	1	59.54	B	C
ATOM	535	O	SER	B	201	-67.307	122.805	304.183	1	62.58	B	O
ATOM	536	N	LYS	B	202	-69.43	122.247	303.836	1	63.43	B	N
ATOM	537	CA	LYS	B	202	-69.118	121.272	302.772	1	67.73	B	C
ATOM	538	CB	LYS	B	202	-70.325	120.377	302.512	1	72.6	B	C

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ATOM	539	CG	LYS	B	202	-70.051	119.15	301.663	1	73.91	B	C
ATOM	540	CD	LYS	B	202	-71.337	118.378	301.405	1	75.82	B	C
ATOM	541	CE	LYS	B	202	-72.24	119.109	300.42	1	84.11	B	C
ATOM	542	NZ	LYS	B	202	-73.162	118.171	299.715	1	93.53	B	N
ATOM	543	C	LYS	B	202	-68.69	121.949	301.465	1	65.17	B	C
ATOM	544	O	LYS	B	202	-67.792	121.467	300.771	1	67.39	B	O
ATOM	545	N	GLU	B	203	-69.344	123.054	301.136	1	57.65	B	N
ATOM	546	CA	GLU	B	203	-68.978	123.856	299.986	1	57.23	B	C
ATOM	547	CB	GLU	B	203	-69.905	125.078	299.917	1	61.67	B	C
ATOM	548	CG	GLU	B	203	-69.574	126.12	298.86	1	71.38	B	C
ATOM	549	CD	GLU	B	203	-70.745	127.046	298.557	1	76.67	B	C
ATOM	550	OE1	GLU	B	203	-71.765	126.564	298.005	1	75.52	B	O
ATOM	551	OE2	GLU	B	203	-70.635	128.257	298.865	1	75.36	B	O
ATOM	552	C	GLU	B	203	-67.502	124.261	300.05	1	56.84	B	C
ATOM	553	O	GLU	B	203	-66.803	124.303	299.037	1	56.95	B	O
ATOM	554	N	ALA	B	204	-67.019	124.554	301.248	1	58.72	B	N
ATOM	555	CA	ALA	B	204	-65.652	125.029	301.416	1	57.72	B	C
ATOM	556	CB	ALA	B	204	-65.544	125.788	302.713	1	57.54	B	C
ATOM	557	C	ALA	B	204	-64.651	123.878	301.381	1	57.48	B	C
ATOM	558	O	ALA	B	204	-63.699	123.881	300.6	1	60.97	B	O
ATOM	559	N	LEU	B	205	-64.889	122.897	302.237	1	57.21	B	N
ATOM	560	CA	LEU	B	205	-64.06	121.699	302.347	1	58.2	B	C
ATOM	561	CB	LEU	B	205	-64.724	120.712	303.323	1	59.52	B	C
ATOM	562	CG	LEU	B	205	-64.709	121.062	304.808	1	57.56	B	C
ATOM	563	CD1	LEU	B	205	-65.369	119.945	305.598	1	56.78	B	C
ATOM	564	CD2	LEU	B	205	-63.283	121.276	305.289	1	59.34	B	C
ATOM	565	C	LEU	B	205	-63.801	120.977	301.026	1	55.4	B	C
ATOM	566	O	LEU	B	205	-62.685	120.561	300.766	1	52.06	B	O
ATOM	567	N	HIS	B	206	-64.846	120.844	300.21	1	61.14	B	N
ATOM	568	CA	HIS	B	206	-64.794	120.105	298.936	1	58.92	B	C
ATOM	569	CB	HIS	B	206	-66.094	119.352	298.732	1	55.58	B	C
ATOM	570	CG	HIS	B	206	-66.343	118.328	299.787	1	59.87	B	C
ATOM	571	ND1	HIS	B	206	-67.425	117.478	299.755	1	64.17	B	N
ATOM	572	CE1	HIS	B	206	-67.378	116.675	300.805	1	66.02	B	C
ATOM	573	NE2	HIS	B	206	-66.298	116.967	301.509	1	61.85	B	N
ATOM	574	CD2	HIS	B	206	-65.633	117.995	300.893	1	60.86	B	C
ATOM	575	C	HIS	B	206	-64.491	120.98	297.74	1	57.34	B	C
ATOM	576	O	HIS	B	206	-64.476	120.49	296.619	1	60.09	B	O
ATOM	577	N	SER	B	207	-64.198	122.257	297.992	1	58.87	B	N
ATOM	578	CA	SER	B	207	-63.923	123.246	296.954	1	58.67	B	C
ATOM	579	CB	SER	B	207	-62.494	123.08	296.445	1	60.6	B	C
ATOM	580	OG	SER	B	207	-61.537	123.299	297.484	1	67.45	B	O
ATOM	581	C	SER	B	207	-64.963	123.176	295.828	1	58.9	B	C
ATOM	582	O	SER	B	207	-64.63	123.067	294.659	1	58.6	B	O
ATOM	583	N	LYS	B	208	-66.232	123.18	296.229	1	58.66	B	N

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ATOM	584	CA	LYS	B	208	-67.361	123.204	295.314	1	58.75	B	C
ATOM	585	CB	LYS	B	208	-68.69	123.353	296.09	1	58.82	B	C
ATOM	586	CG	LYS	B	208	-69.36	122.04	296.434	1	63.44	B	C
ATOM	587	CD	LYS	B	208	-70.344	121.671	295.33	1	75.33	B	C
ATOM	588	CE	LYS	B	208	-70.648	120.177	295.285	1	79.8	B	C
ATOM	589	NZ	LYS	B	208	-71.524	119.849	294.122	1	81.33	B	N
ATOM	590	C	LYS	B	208	-67.222	124.332	294.281	1	57.8	B	C
ATOM	591	O	LYS	B	208	-67.28	124.1	293.087	1	66.54	B	O
ATOM	592	N	THR	B	209	-67.031	125.546	294.755	1	56.3	B	N
ATOM	593	CA	THR	B	209	-67.16	126.722	293.925	1	57.41	B	C
ATOM	594	CB	THR	B	209	-67.252	127.988	294.803	1	58.84	B	C
ATOM	595	OG1	THR	B	209	-66.794	127.666	296.125	1	68.76	B	O
ATOM	596	CG2	THR	B	209	-68.679	128.432	294.934	1	61.2	B	C
ATOM	597	C	THR	B	209	-66.03	126.81	292.912	1	58.4	B	C
ATOM	598	O	THR	B	209	-66.248	127.23	291.77	1	66.86	B	O
ATOM	599	N	CYS	B	210	-64.84	126.369	293.307	1	58.81	B	N
ATOM	600	CA	CYS	B	210	-63.656	126.472	292.455	1	57.18	B	C
ATOM	601	CB	CYS	B	210	-62.457	126.819	293.303	1	62.29	B	C
ATOM	602	SG	CYS	B	210	-60.964	127.021	292.316	1	70.92	B	S
ATOM	603	C	CYS	B	210	-63.333	125.201	291.677	1	49.34	B	C
ATOM	604	O	CYS	B	210	-63.187	125.231	290.459	1	52.35	B	O
ATOM	605	N	ALA	B	211	-63.205	124.101	292.394	1	43.12	B	N
ATOM	606	CA	ALA	B	211	-62.691	122.861	291.837	1	47.65	B	C
ATOM	607	CB	ALA	B	211	-61.957	122.055	292.907	1	44.89	B	C
ATOM	608	C	ALA	B	211	-63.739	121.988	291.178	1	51.67	B	C
ATOM	609	O	ALA	B	211	-63.429	121.262	290.238	1	68.25	B	O
ATOM	610	N	VAL	B	212	-64.96	122.027	291.681	1	52.25	B	N
ATOM	611	CA	VAL	B	212	-65.99	121.071	291.286	1	50.89	B	C
ATOM	612	CB	VAL	B	212	-66.847	120.649	292.495	1	50.72	B	C
ATOM	613	CG1	VAL	B	212	-67.961	119.713	292.067	1	50.82	B	C
ATOM	614	CG2	VAL	B	212	-65.972	119.988	293.559	1	50.67	B	C
ATOM	615	C	VAL	B	212	-66.886	121.629	290.188	1	49.73	B	C
ATOM	616	O	VAL	B	212	-67.076	120.955	289.163	1	47.45	B	O
ATOM	617	N	ASN	B	213	-67.455	122.823	290.407	1	46.62	B	N
ATOM	618	CA	ASN	B	213	-68.416	123.366	289.462	1	48.28	B	C
ATOM	619	CB	ASN	B	213	-69.481	124.237	290.118	1	51.59	B	C
ATOM	620	CG	ASN	B	213	-70.053	123.637	291.39	1	54.08	B	C
ATOM	621	OD1	ASN	B	213	-70.006	124.268	292.444	1	58.59	B	O
ATOM	622	ND2	ASN	B	213	-70.608	122.44	291.302	1	55.14	B	N
ATOM	623	C	ASN	B	213	-67.653	124.173	288.449	1	52.52	B	C
ATOM	624	O	ASN	B	213	-66.758	124.92	288.825	1	59.95	B	O
ATOM	625	N	MET	B	214	-67.976	123.944	287.175	1	56.78	B	N
ATOM	626	CA	MET	B	214	-67.628	124.78	286.039	1	60.55	B	C
ATOM	627	CB	MET	B	214	-66.902	123.981	284.957	1	65.75	B	C
ATOM	628	CG	MET	B	214	-65.451	123.688	285.248	1	79.57	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	629	SD	MET	B	214	-64.527	123.353	283.725	1	98.7	B	S
ATOM	630	CE	MET	B	214	-62.996	122.631	284.382	1	83.02	B	C
ATOM	631	C	MET	B	214	-68.923	125.269	285.417	1	63.35	B	C
ATOM	632	O	MET	B	214	-69.991	124.692	285.637	1	62.24	B	O
ATOM	633	N	VAL	B	215	-68.809	126.326	284.616	1	66.71	B	N
ATOM	634	CA	VAL	B	215	-69.892	126.793	283.752	1	67.12	B	C
ATOM	635	CB	VAL	B	215	-70.533	128.104	284.303	1	63.32	B	C
ATOM	636	CG1	VAL	B	215	-71.44	128.774	283.273	1	60.19	B	C
ATOM	637	CG2	VAL	B	215	-71.317	127.821	285.591	1	60.1	B	C
ATOM	638	C	VAL	B	215	-69.275	126.981	282.348	1	70.19	B	C
ATOM	639	O	VAL	B	215	-68.482	127.897	282.162	1	80.44	B	O
ATOM	640	N	PRO	B	216	-69.587	126.131	281.364	1	69.68	B	N
ATOM	641	CA	PRO	B	216	-70.49	124.973	281.459	1	66.75	B	C
ATOM	642	CB	PRO	B	216	-70.99	124.828	280.032	1	66.64	B	C
ATOM	643	CG	PRO	B	216	-69.839	125.281	279.212	1	71.28	B	C
ATOM	644	CD	PRO	B	216	-69.232	126.43	279.969	1	71.91	B	C
ATOM	645	C	PRO	B	216	-69.758	123.698	281.88	1	62.07	B	C
ATOM	646	O	PRO	B	216	-68.573	123.561	281.583	1	66.88	B	O
ATOM	647	N	PRO	B	217	-70.453	122.75	282.534	1	56.55	B	N
ATOM	648	CA	PRO	B	217	-69.741	121.536	282.967	1	55.58	B	C
ATOM	649	CB	PRO	B	217	-70.803	120.761	283.752	1	54.09	B	C
ATOM	650	CG	PRO	B	217	-71.892	121.738	284.027	1	54.7	B	C
ATOM	651	CD	PRO	B	217	-71.883	122.667	282.855	1	55.4	B	C
ATOM	652	C	PRO	B	217	-69.197	120.675	281.809	1	49.56	B	C
ATOM	653	O	PRO	B	217	-69.777	120.656	280.736	1	51.87	B	O
ATOM	654	N	PRO	B	218	-68.082	119.979	282.025	1	46.26	B	N
ATOM	655	CA	PRO	B	218	-67.562	119.131	280.973	1	50	B	C
ATOM	656	CB	PRO	B	218	-66.131	118.877	281.437	1	47.82	B	C
ATOM	657	CG	PRO	B	218	-66.271	118.819	282.911	1	47.03	B	C
ATOM	658	CD	PRO	B	218	-67.266	119.881	283.242	1	46.83	B	C
ATOM	659	C	PRO	B	218	-68.367	117.806	280.85	1	47.35	B	C
ATOM	660	O	PRO	B	218	-68.967	117.35	281.844	1	36.21	B	O
ATOM	661	N	THR	B	219	-68.383	117.221	279.644	1	43.66	B	N
ATOM	662	CA	THR	B	219	-68.908	115.866	279.483	1	45.62	B	C
ATOM	663	CB	THR	B	219	-69.116	115.422	278.02	1	45.19	B	C
ATOM	664	OG1	THR	B	219	-67.865	115.257	277.354	1	40.9	B	O
ATOM	665	CG2	THR	B	219	-70.025	116.386	277.244	1	49.07	B	C
ATOM	666	C	THR	B	219	-67.96	114.872	280.15	1	45.06	B	C
ATOM	667	O	THR	B	219	-66.761	115.02	280.056	1	46.81	B	O
ATOM	668	N	CYS	B	220	-68.489	113.863	280.82	1	45.11	B	N
ATOM	669	CA	CYS	B	220	-67.629	112.91	281.483	1	48.53	B	C
ATOM	670	CB	CYS	B	220	-68.462	111.818	282.152	1	49.97	B	C
ATOM	671	SG	CYS	B	220	-69.67	112.405	283.365	1	56.57	B	S
ATOM	672	C	CYS	B	220	-66.581	112.286	280.529	1	51.1	B	C
ATOM	673	O	CYS	B	220	-65.533	111.864	280.981	1	51.6	B	O

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ATOM	674	N	LEU	B	221	-66.863	112.231	279.227	1	53.57	B	N
ATOM	675	CA	LEU	B	221	-65.851	111.873	278.241	1	60.81	B	C
ATOM	676	CB	LEU	B	221	-66.41	111.884	276.811	1	63.86	B	C
ATOM	677	CG	LEU	B	221	-67.499	110.874	276.422	1	64.78	B	C
ATOM	678	CD1	LEU	B	221	-67.775	111.007	274.929	1	60.21	B	C
ATOM	679	CD2	LEU	B	221	-67.153	109.434	276.801	1	64.42	B	C
ATOM	680	C	LEU	B	221	-64.697	112.857	278.317	1	63.11	B	C
ATOM	681	O	LEU	B	221	-63.571	112.478	278.679	1	66.82	B	O
ATOM	682	N	SER	B	222	-65.004	114.122	278.026	1	56.57	B	N
ATOM	683	CA	SER	B	222	-64.039	115.203	278.053	1	52.82	B	C
ATOM	684	CB	SER	B	222	-64.78	116.536	277.947	1	53.62	B	C
ATOM	685	OG	SER	B	222	-63.892	117.635	278.06	1	64.44	B	O
ATOM	686	C	SER	B	222	-63.142	115.174	279.301	1	52.34	B	C
ATOM	687	O	SER	B	222	-61.95	115.438	279.219	1	56.77	B	O
ATOM	688	N	VAL	B	223	-63.718	114.827	280.445	1	52.22	B	N
ATOM	689	CA	VAL	B	223	-62.99	114.756	281.714	1	49.3	B	C
ATOM	690	CB	VAL	B	223	-63.965	114.598	282.901	1	44.89	B	C
ATOM	691	CG1	VAL	B	223	-63.243	114.274	284.188	1	47.97	B	C
ATOM	692	CG2	VAL	B	223	-64.708	115.891	283.099	1	45.63	B	C
ATOM	693	C	VAL	B	223	-62.004	113.607	281.707	1	52.31	B	C
ATOM	694	O	VAL	B	223	-60.807	113.796	281.915	1	54.8	B	O
ATOM	695	N	ILE	B	224	-62.519	112.408	281.472	1	53.37	B	N
ATOM	696	CA	ILE	B	224	-61.693	111.204	281.519	1	50.91	B	C
ATOM	697	CB	ILE	B	224	-62.552	109.911	281.378	1	47.9	B	C
ATOM	698	CG1	ILE	B	224	-62.246	108.88	282.456	1	49.87	B	C
ATOM	699	CD1	ILE	B	224	-63.292	108.796	283.554	1	50.12	B	C
ATOM	700	CG2	ILE	B	224	-62.383	109.233	280.033	1	50.94	B	C
ATOM	701	C	ILE	B	224	-60.616	111.299	280.423	1	53.35	B	C
ATOM	702	O	ILE	B	224	-59.522	110.8	280.586	1	51.33	B	O
ATOM	703	N	ARG	B	225	-60.937	111.931	279.3	1	56.52	B	N
ATOM	704	CA	ARG	B	225	-60.014	111.958	278.176	1	57.51	B	C
ATOM	705	CB	ARG	B	225	-60.694	112.428	276.873	1	55.16	B	C
ATOM	706	CG	ARG	B	225	-61.218	111.219	276.088	1	54.5	B	C
ATOM	707	CD	ARG	B	225	-62.133	111.564	274.932	1	52.27	B	C
ATOM	708	NE	ARG	B	225	-62.854	110.391	274.454	1	52.97	B	N
ATOM	709	CZ	ARG	B	225	-63.867	110.414	273.582	1	53.31	B	C
ATOM	710	NH1	ARG	B	225	-64.453	109.257	273.222	1	50.5	B	N
ATOM	711	NH2	ARG	B	225	-64.297	111.569	273.059	1	47.5	B	N
ATOM	712	C	ARG	B	225	-58.825	112.799	278.527	1	57.14	B	C
ATOM	713	O	ARG	B	225	-57.691	112.308	278.551	1	62.56	B	O
ATOM	714	N	SER	B	226	-59.098	114.047	278.863	1	55.14	B	N
ATOM	715	CA	SER	B	226	-58.042	114.992	279.172	1	52.97	B	C
ATOM	716	CB	SER	B	226	-58.603	116.377	279.413	1	49.83	B	C
ATOM	717	OG	SER	B	226	-59.008	116.416	280.743	1	45.49	B	O
ATOM	718	C	SER	B	226	-57.3	114.585	280.427	1	52.62	B	C

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ATOM	719	O	SER	B	226	-56.227	115.096	280.687	1	57.71	B	O
ATOM	720	N	CYS	B	227	-57.879	113.708	281.232	1	52.76	B	N
ATOM	721	CA	CYS	B	227	-57.121	113.097	282.301	1	53.5	B	C
ATOM	722	CB	CYS	B	227	-58.029	112.304	283.195	1	53.55	B	C
ATOM	723	SG	CYS	B	227	-57.103	111.642	284.552	1	62.61	B	S
ATOM	724	C	CYS	B	227	-56.006	112.172	281.795	1	59.14	B	C
ATOM	725	O	CYS	B	227	-54.835	112.318	282.18	1	56.67	B	O
ATOM	726	N	GLN	B	228	-56.372	111.229	280.921	1	65.3	B	N
ATOM	727	CA	GLN	B	228	-55.398	110.297	280.327	1	68.45	B	C
ATOM	728	CB	GLN	B	228	-56.018	109.413	279.233	1	66.55	B	C
ATOM	729	CG	GLN	B	228	-57.21	108.546	279.589	1	69.96	B	C
ATOM	730	CD	GLN	B	228	-56.934	107.446	280.607	1	78.51	B	C
ATOM	731	OE1	GLN	B	228	-56.304	107.66	281.663	1	77.3	B	O
ATOM	732	NE2	GLN	B	228	-57.461	106.255	280.319	1	80.68	B	N
ATOM	733	C	GLN	B	228	-54.21	111.075	279.72	1	74.25	B	C
ATOM	734	O	GLN	B	228	-53.051	110.631	279.78	1	71.01	B	O
ATOM	735	N	ASN	B	229	-54.527	112.256	279.182	1	71.05	B	N
ATOM	736	CA	ASN	B	229	-53.595	113.13	278.49	1	63.22	B	C
ATOM	737	CB	ASN	B	229	-54.382	113.901	277.428	1	66.32	B	C
ATOM	738	CG	ASN	B	229	-53.662	113.985	276.131	1	66.27	B	C
ATOM	739	OD1	ASN	B	229	-53.213	112.97	275.607	1	74.88	B	O
ATOM	740	ND2	ASN	B	229	-53.581	115.175	275.574	1	69.39	B	N
ATOM	741	C	ASN	B	229	-52.888	114.131	279.394	1	60.01	B	C
ATOM	742	O	ASN	B	229	-52.601	115.236	278.964	1	64.83	B	O
ATOM	743	N	ASP	B	230	-52.604	113.748	280.634	1	60.6	B	N
ATOM	744	CA	ASP	B	230	-51.86	114.575	281.577	1	63.17	B	C
ATOM	745	CB	ASP	B	230	-52.837	115.452	282.388	1	71.04	B	C
ATOM	746	CG	ASP	B	230	-52.277	115.902	283.744	1	79.67	B	C
ATOM	747	OD1	ASP	B	230	-52.267	115.094	284.727	1	74.26	B	O
ATOM	748	OD2	ASP	B	230	-51.885	117.091	283.825	1	83.71	B	O
ATOM	749	C	ASP	B	230	-51.084	113.604	282.463	1	63.4	B	C
ATOM	750	O	ASP	B	230	-51.677	112.683	283.062	1	48.63	B	O
ATOM	751	N	GLU	B	231	-49.763	113.813	282.514	1	73.96	B	N
ATOM	752	CA	GLU	B	231	-48.848	113.026	283.35	1	77.37	B	C
ATOM	753	CB	GLU	B	231	-47.537	113.805	283.635	1	90.36	B	C
ATOM	754	CG	GLU	B	231	-46.376	113.659	282.622	1	99.88	B	C
ATOM	755	CD	GLU	B	231	-45	114.184	283.148	1	102.39	B	C
ATOM	756	OE1	GLU	B	231	-44.256	114.887	282.4	1	79.77	B	O
ATOM	757	OE2	GLU	B	231	-44.641	113.881	284.319	1	97.87	B	O
ATOM	758	C	GLU	B	231	-49.525	112.656	284.679	1	71.97	B	C
ATOM	759	O	GLU	B	231	-49.743	111.477	284.964	1	59.23	B	O
ATOM	760	N	LEU	B	232	-49.905	113.671	285.457	1	72.84	B	N
ATOM	761	CA	LEU	B	232	-50.33	113.435	286.842	1	76.83	B	C
ATOM	762	CB	LEU	B	232	-50.422	114.729	287.674	1	80.59	B	C
ATOM	763	CG	LEU	B	232	-50.303	114.538	289.217	1	76.5	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	764	CD1	LEU	B	232	-49.702	115.773	289.852	1	81.14	B	C
ATOM	765	CD2	LEU	B	232	-51.608	114.242	289.942	1	72.93	B	C
ATOM	766	C	LEU	B	232	-51.615	112.612	287.022	1	76.14	B	C
ATOM	767	O	LEU	B	232	-51.544	111.604	287.73	1	70.93	B	O
ATOM	768	N	CYS	B	233	-52.776	112.992	286.459	1	73.45	B	N
ATOM	769	CA	CYS	B	233	-53.992	112.177	286.774	1	69.21	B	C
ATOM	770	CB	CYS	B	233	-55.344	112.935	286.764	1	67.53	B	C
ATOM	771	SG	CYS	B	233	-56.122	113.342	285.196	1	74.9	B	S
ATOM	772	C	CYS	B	233	-54.048	110.842	286.041	1	60.4	B	C
ATOM	773	O	CYS	B	233	-54.444	109.856	286.656	1	66.51	B	O
ATOM	774	N	ARG	B	234	-53.579	110.749	284.799	1	57.19	B	N
ATOM	775	CA	ARG	B	234	-53.604	109.437	284.121	1	60.22	B	C
ATOM	776	CB	ARG	B	234	-52.906	109.443	282.749	1	62.48	B	C
ATOM	777	CG	ARG	B	234	-51.4	109.324	282.771	1	74.49	B	C
ATOM	778	CD	ARG	B	234	-50.805	108.745	281.483	1	83.75	B	C
ATOM	779	NE	ARG	B	234	-49.694	107.847	281.827	1	88.38	B	N
ATOM	780	CZ	ARG	B	234	-49.802	106.542	282.113	1	87.46	B	C
ATOM	781	NH1	ARG	B	234	-48.713	105.855	282.442	1	95.05	B	N
ATOM	782	NH2	ARG	B	234	-50.968	105.898	282.059	1	86.99	B	N
ATOM	783	C	ARG	B	234	-53.126	108.276	285.017	1	55.92	B	C
ATOM	784	O	ARG	B	234	-53.61	107.165	284.871	1	59.16	B	O
ATOM	785	N	ARG	B	235	-52.233	108.543	285.964	1	59.07	B	N
ATOM	786	CA	ARG	B	235	-51.71	107.499	286.847	1	67.85	B	C
ATOM	787	CB	ARG	B	235	-50.358	107.883	287.442	1	71.33	B	C
ATOM	788	CG	ARG	B	235	-49.405	108.549	286.475	1	82.03	B	C
ATOM	789	CD	ARG	B	235	-47.949	108.318	286.867	1	97.07	B	C
ATOM	790	NE	ARG	B	235	-47.086	109.417	286.44	1	109.37	B	N
ATOM	791	CZ	ARG	B	235	-46.798	109.737	285.17	1	121.44	B	C
ATOM	792	NH1	ARG	B	235	-45.985	110.77	284.93	1	128.15	B	N
ATOM	793	NH2	ARG	B	235	-47.306	109.058	284.13	1	116.57	B	N
ATOM	794	C	ARG	B	235	-52.644	107.211	287.99	1	69.92	B	C
ATOM	795	O	ARG	B	235	-52.831	106.06	288.391	1	73.18	B	O
ATOM	796	N	HIS	B	236	-53.193	108.279	288.544	1	70.56	B	N
ATOM	797	CA	HIS	B	236	-54.091	108.174	289.679	1	71.22	B	C
ATOM	798	CB	HIS	B	236	-54.2	109.524	290.384	1	75.5	B	C
ATOM	799	CG	HIS	B	236	-52.878	110.048	290.866	1	85.19	B	C
ATOM	800	ND1	HIS	B	236	-52.123	110.945	290.14	1	81.19	B	N
ATOM	801	CE1	HIS	B	236	-51.005	111.207	290.79	1	79.7	B	C
ATOM	802	NE2	HIS	B	236	-51.003	110.509	291.91	1	84.07	B	N
ATOM	803	CD2	HIS	B	236	-52.157	109.767	291.979	1	87.89	B	C
ATOM	804	C	HIS	B	236	-55.446	107.637	289.213	1	68.01	B	C
ATOM	805	O	HIS	B	236	-56.112	106.905	289.976	1	55.76	B	O
ATOM	806	N	TYR	B	237	-55.821	107.969	287.962	1	61.17	B	N
ATOM	807	CA	TYR	B	237	-56.956	107.349	287.326	1	58.7	B	C
ATOM	808	CB	TYR	B	237	-57.278	107.904	285.944	1	58.67	B	C

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ATOM	809	CG	TYR	B	237	-58.562	107.227	285.457	1	72.12	B	C
ATOM	810	CD1	TYR	B	237	-59.763	107.373	286.174	1	74.19	B	C
ATOM	811	CE1	TYR	B	237	-60.919	106.733	285.786	1	76.33	B	C
ATOM	812	CZ	TYR	B	237	-60.902	105.921	284.676	1	76.93	B	C
ATOM	813	OH	TYR	B	237	-62.068	105.288	284.316	1	82.93	B	O
ATOM	814	CE2	TYR	B	237	-59.737	105.741	283.949	1	72.75	B	C
ATOM	815	CD2	TYR	B	237	-58.569	106.375	284.351	1	75.37	B	C
ATOM	816	C	TYR	B	237	-56.793	105.833	287.208	1	64.57	B	C
ATOM	817	O	TYR	B	237	-57.644	105.086	287.733	1	58.02	B	O
ATOM	818	N	ARG	B	238	-55.719	105.402	286.521	1	65.8	B	N
ATOM	819	CA	ARG	B	238	-55.357	103.967	286.365	1	61.07	B	C
ATOM	820	CB	ARG	B	238	-53.933	103.796	285.815	1	66.29	B	C
ATOM	821	CG	ARG	B	238	-53.823	103.169	284.427	1	72.52	B	C
ATOM	822	CD	ARG	B	238	-52.373	102.986	283.955	1	79.88	B	C
ATOM	823	NE	ARG	B	238	-51.419	102.703	285.047	1	91.05	B	N
ATOM	824	CZ	ARG	B	238	-50.578	103.576	285.642	1	94.11	B	C
ATOM	825	NH1	ARG	B	238	-49.79	103.153	286.63	1	98.65	B	N
ATOM	826	NH2	ARG	B	238	-50.484	104.857	285.278	1	88.87	B	N
ATOM	827	C	ARG	B	238	-55.463	103.212	287.683	1	57.17	B	C
ATOM	828	O	ARG	B	238	-56.018	102.121	287.745	1	51.83	B	O
ATOM	829	N	THR	B	239	-54.946	103.823	288.74	1	56.12	B	N
ATOM	830	CA	THR	B	239	-55.033	103.241	290.068	1	58.6	B	C
ATOM	831	CB	THR	B	239	-54.085	103.942	291.067	1	59.06	B	C
ATOM	832	OG1	THR	B	239	-52.798	104.137	290.466	1	59.35	B	O
ATOM	833	CG2	THR	B	239	-53.931	103.108	292.344	1	56.86	B	C
ATOM	834	C	THR	B	239	-56.446	103.276	290.636	1	60.22	B	C
ATOM	835	O	THR	B	239	-56.813	102.371	291.382	1	64.13	B	O
ATOM	836	N	PHE	B	240	-57.214	104.328	290.331	1	59.97	B	N
ATOM	837	CA	PHE	B	240	-58.616	104.453	290.809	1	56.17	B	C
ATOM	838	CB	PHE	B	240	-59.232	105.808	290.417	1	53.9	B	C
ATOM	839	CG	PHE	B	240	-60.699	105.92	290.714	1	49.43	B	C
ATOM	840	CD1	PHE	B	240	-61.173	105.755	292.005	1	51.57	B	C
ATOM	841	CE1	PHE	B	240	-62.529	105.852	292.28	1	49.74	B	C
ATOM	842	CZ	PHE	B	240	-63.422	106.127	291.268	1	45.63	B	C
ATOM	843	CE2	PHE	B	240	-62.963	106.304	289.985	1	45.53	B	C
ATOM	844	CD2	PHE	B	240	-61.609	106.203	289.709	1	47.71	B	C
ATOM	845	C	PHE	B	240	-59.484	103.347	290.263	1	54.62	B	C
ATOM	846	O	PHE	B	240	-60.217	102.694	291.009	1	50.9	B	O
ATOM	847	N	GLN	B	241	-59.374	103.15	288.955	1	54.99	B	N
ATOM	848	CA	GLN	B	241	-60.117	102.118	288.263	1	58.57	B	C
ATOM	849	CB	GLN	B	241	-59.888	102.179	286.747	1	62.4	B	C
ATOM	850	CG	GLN	B	241	-61.092	101.714	285.94	1	63.29	B	C
ATOM	851	CD	GLN	B	241	-60.84	101.792	284.457	1	60.17	B	C
ATOM	852	OE1	GLN	B	241	-61.001	102.833	283.849	1	55.47	B	O
ATOM	853	NE2	GLN	B	241	-60.43	100.679	283.87	1	65.26	B	N

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ATOM	854	C	GLN	B	241	-59.704	100.782	288.796	1	62.06	B	C
ATOM	855	O	GLN	B	241	-60.546	100.026	289.282	1	70.43	B	O
ATOM	856	N	SER	B	242	-58.399	100.514	288.736	1	68.65	B	N
ATOM	857	CA	SER	B	242	-57.82	99.244	289.208	1	67.79	B	C
ATOM	858	CB	SER	B	242	-56.296	99.342	289.229	1	66.42	B	C
ATOM	859	OG	SER	B	242	-55.717	98.337	290.044	1	71.01	B	O
ATOM	860	C	SER	B	242	-58.335	98.83	290.586	1	64.22	B	C
ATOM	861	O	SER	B	242	-58.811	97.704	290.777	1	68.98	B	O
ATOM	862	N	LYS	B	243	-58.27	99.76	291.523	1	62.6	B	N
ATOM	863	CA	LYS	B	243	-58.599	99.473	292.909	1	69.75	B	C
ATOM	864	CB	LYS	B	243	-57.932	100.489	293.826	1	75.63	B	C
ATOM	865	CG	LYS	B	243	-56.417	100.509	293.708	1	79.99	B	C
ATOM	866	CD	LYS	B	243	-55.75	99.433	294.541	1	86.83	B	C
ATOM	867	CE	LYS	B	243	-54.399	99.056	293.951	1	100.5	B	C
ATOM	868	NZ	LYS	B	243	-53.585	98.283	294.926	1	112	B	N
ATOM	869	C	LYS	B	243	-60.101	99.425	293.183	1	71.26	B	C
ATOM	870	O	LYS	B	243	-60.552	98.504	293.869	1	74.75	B	O
ATOM	871	N	CYS	B	244	-60.862	100.394	292.646	1	71.34	B	N
ATOM	872	CA	CYS	B	244	-62.329	100.516	292.884	1	65.89	B	C
ATOM	873	CB	CYS	B	244	-62.743	101.986	292.867	1	65.6	B	C
ATOM	874	SG	CYS	B	244	-61.951	103.004	294.129	1	64.93	B	S
ATOM	875	C	CYS	B	244	-63.202	99.765	291.871	1	60.46	B	C
ATOM	876	O	CYS	B	244	-64.15	99.066	292.243	1	55.63	B	O
ATOM	877	N	TRP	B	245	-62.875	99.926	290.593	1	56.28	B	N
ATOM	878	CA	TRP	B	245	-63.677	99.385	289.497	1	59.76	B	C
ATOM	879	CB	TRP	B	245	-63.964	100.497	288.458	1	63.08	B	C
ATOM	880	CG	TRP	B	245	-64.805	101.588	289.062	1	64.3	B	C
ATOM	881	CD1	TRP	B	245	-64.436	102.874	289.305	1	64.81	B	C
ATOM	882	NE1	TRP	B	245	-65.451	103.548	289.938	1	64.11	B	N
ATOM	883	CE2	TRP	B	245	-66.501	102.693	290.115	1	63.11	B	C
ATOM	884	CD2	TRP	B	245	-66.128	101.449	289.584	1	65.35	B	C
ATOM	885	CE3	TRP	B	245	-67.034	100.389	289.654	1	69.9	B	C
ATOM	886	CZ3	TRP	B	245	-68.268	100.611	290.228	1	68.54	B	C
ATOM	887	CH2	TRP	B	245	-68.608	101.853	290.737	1	71.41	B	C
ATOM	888	CZ2	TRP	B	245	-67.737	102.909	290.693	1	69.16	B	C
ATOM	889	C	TRP	B	245	-62.986	98.177	288.882	1	59.86	B	C
ATOM	890	O	TRP	B	245	-62.848	98.085	287.677	1	55.36	B	O
ATOM	891	N	GLN	B	246	-62.596	97.24	289.747	1	65.23	B	N
ATOM	892	CA	GLN	B	246	-61.849	96.034	289.381	1	64.4	B	C
ATOM	893	CB	GLN	B	246	-61.925	95.008	290.502	1	70.79	B	C
ATOM	894	CG	GLN	B	246	-61.059	95.275	291.726	1	77.01	B	C
ATOM	895	CD	GLN	B	246	-61.069	94.104	292.721	1	81.46	B	C
ATOM	896	OE1	GLN	B	246	-61.498	92.964	292.408	1	83.69	B	O
ATOM	897	NE2	GLN	B	246	-60.588	94.376	293.928	1	77.13	B	N
ATOM	898	C	GLN	B	246	-62.363	95.365	288.124	1	63.83	B	C

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ATOM	899	O	GLN	B	246	-61.616	95.276	287.132	1	63.32	B	O
ATOM	900	N	ARG	B	247	-63.637	94.931	288.157	1	61.56	B	N
ATOM	901	CA	ARG	B	247	-64.209	94.084	287.066	1	63.11	B	C
ATOM	902	CB	ARG	B	247	-65.706	93.697	287.215	1	68.54	B	C
ATOM	903	CG	ARG	B	247	-66.399	93.885	288.572	1	89.13	B	C
ATOM	904	CD	ARG	B	247	-65.864	92.973	289.682	1	101.72	B	C
ATOM	905	NE	ARG	B	247	-66.71	92.929	290.887	1	105.02	B	N
ATOM	906	CZ	ARG	B	247	-66.393	92.318	292.037	1	108.34	B	C
ATOM	907	NH1	ARG	B	247	-65.225	91.685	292.189	1	110.77	B	N
ATOM	908	NH2	ARG	B	247	-67.246	92.352	293.063	1	103.99	B	N
ATOM	909	C	ARG	B	247	-64.013	94.781	285.717	1	58.7	B	C
ATOM	910	O	ARG	B	247	-63.78	94.13	284.7	1	52.42	B	O
ATOM	911	N	VAL	B	248	-64.08	96.111	285.732	1	55.68	B	N
ATOM	912	CA	VAL	B	248	-63.924	96.886	284.52	1	55.52	B	C
ATOM	913	CB	VAL	B	248	-64.243	98.382	284.717	1	54.19	B	C
ATOM	914	CG1	VAL	B	248	-64.133	99.119	283.377	1	53.94	B	C
ATOM	915	CG2	VAL	B	248	-65.626	98.553	285.325	1	52.46	B	C
ATOM	916	C	VAL	B	248	-62.513	96.741	284.001	1	52.38	B	C
ATOM	917	O	VAL	B	248	-62.315	96.339	282.854	1	56.48	B	O
ATOM	918	N	THR	B	249	-61.556	97.092	284.85	1	51.63	B	N
ATOM	919	CA	THR	B	249	-60.147	97.01	284.539	1	55.01	B	C
ATOM	920	CB	THR	B	249	-59.303	97.398	285.76	1	60.67	B	C
ATOM	921	OG1	THR	B	249	-59.542	98.781	286.044	1	60.22	B	O
ATOM	922	CG2	THR	B	249	-57.796	97.163	285.522	1	62.26	B	C
ATOM	923	C	THR	B	249	-59.856	95.596	284.115	1	54.31	B	C
ATOM	924	O	THR	B	249	-59.438	95.373	282.986	1	52.35	B	O
ATOM	925	N	ARG	B	250	-60.163	94.648	284.988	1	52.6	B	N
ATOM	926	CA	ARG	B	250	-60.06	93.219	284.663	1	56.59	B	C
ATOM	927	CB	ARG	B	250	-60.837	92.404	285.705	1	55.53	B	C
ATOM	928	CG	ARG	B	250	-60.728	90.918	285.447	1	59.2	B	C
ATOM	929	CD	ARG	B	250	-60.774	90.095	286.702	1	58.65	B	C
ATOM	930	NE	ARG	B	250	-62.034	90.279	287.408	1	55.82	B	N
ATOM	931	CZ	ARG	B	250	-62.195	90.958	288.539	1	58.95	B	C
ATOM	932	NH1	ARG	B	250	-61.184	91.562	289.163	1	63.86	B	N
ATOM	933	NH2	ARG	B	250	-63.397	91.022	289.074	1	64.53	B	N
ATOM	934	C	ARG	B	250	-60.503	92.785	283.231	1	57.01	B	C
ATOM	935	O	ARG	B	250	-59.845	91.986	282.57	1	57.9	B	O
ATOM	936	N	LYS	B	251	-61.623	93.307	282.773	1	59.77	B	N
ATOM	937	CA	LYS	B	251	-62.16	92.966	281.458	1	59.26	B	C
ATOM	938	CB	LYS	B	251	-63.681	93.146	281.491	1	61.07	B	C
ATOM	939	CG	LYS	B	251	-64.535	92.077	280.842	1	60.19	B	C
ATOM	940	CD	LYS	B	251	-65.779	91.83	281.688	1	63.76	B	C
ATOM	941	CE	LYS	B	251	-67.016	91.667	280.827	1	72.69	B	C
ATOM	942	NZ	LYS	B	251	-68.166	91.236	281.669	1	76.99	B	N
ATOM	943	C	LYS	B	251	-61.557	93.883	280.395	1	61.94	B	C

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ATOM	944	O	LYS	B	251	-61.184	93.414	279.329	1	63.24	B	O
ATOM	945	N	CYS	B	252	-61.44	95.181	280.693	1	66.22	B	N
ATOM	946	CA	CYS	B	252	-61.232	96.195	279.657	1	71	B	C
ATOM	947	CB	CYS	B	252	-62.409	97.157	279.677	1	73.33	B	C
ATOM	948	SG	CYS	B	252	-63.939	96.366	279.185	1	77.39	B	S
ATOM	949	C	CYS	B	252	-59.954	97.007	279.665	1	75.5	B	C
ATOM	950	O	CYS	B	252	-59.577	97.538	278.602	1	79.01	B	O
ATOM	951	N	HIS	B	253	-59.311	97.143	280.828	1	73.17	B	N
ATOM	952	CA	HIS	B	253	-58.163	98.03	280.972	1	77.44	B	C
ATOM	953	CB	HIS	B	253	-57.002	97.567	280.06	1	87.32	B	C
ATOM	954	CG	HIS	B	253	-55.676	97.48	280.74	1	96.06	B	C
ATOM	955	ND1	HIS	B	253	-55.168	98.494	281.523	1	104.47	B	N
ATOM	956	CE1	HIS	B	253	-53.974	98.144	281.966	1	106.44	B	C
ATOM	957	NE2	HIS	B	253	-53.685	96.946	281.488	1	102.46	B	N
ATOM	958	CD2	HIS	B	253	-54.729	96.512	280.711	1	94.91	B	C
ATOM	959	C	HIS	B	253	-58.69	99.44	280.651	1	75.11	B	C
ATOM	960	O	HIS	B	253	-59.27	100.084	281.517	1	73.84	B	O
ATOM	961	N	GLU	B	254	-58.57	99.886	279.404	1	75.21	B	N
ATOM	962	CA	GLU	B	254	-59.049	101.204	279.002	1	77.95	B	C
ATOM	963	CB	GLU	B	254	-57.936	102.219	279.249	1	82.85	B	C
ATOM	964	CG	GLU	B	254	-56.664	101.96	278.435	1	89.44	B	C
ATOM	965	CD	GLU	B	254	-55.408	102.431	279.152	1	91.11	B	C
ATOM	966	OE1	GLU	B	254	-55.253	103.662	279.368	1	75.93	B	O
ATOM	967	OE2	GLU	B	254	-54.581	101.558	279.504	1	98.47	B	O
ATOM	968	C	GLU	B	254	-59.532	101.295	277.548	1	79.8	B	C
ATOM	969	O	GLU	B	254	-59.797	102.396	277.064	1	88.99	B	O
ATOM	970	N	ASP	B	255	-59.665	100.157	276.863	1	80.45	B	N
ATOM	971	CA	ASP	B	255	-60.181	100.11	275.506	1	81.74	B	C
ATOM	972	CB	ASP	B	255	-60.123	98.654	274.984	1	89.43	B	C
ATOM	973	CG	ASP	B	255	-60.719	98.465	273.573	1	100.36	B	C
ATOM	974	OD1	ASP	B	255	-60.413	99.242	272.639	1	110.86	B	O
ATOM	975	OD2	ASP	B	255	-61.481	97.486	273.394	1	106.23	B	O
ATOM	976	C	ASP	B	255	-61.609	100.638	275.626	1	81.45	B	C
ATOM	977	O	ASP	B	255	-62.538	99.896	275.936	1	78.66	B	O
ATOM	978	N	GLU	B	256	-61.758	101.949	275.445	1	73.47	B	N
ATOM	979	CA	GLU	B	256	-63.066	102.602	275.438	1	68.21	B	C
ATOM	980	CB	GLU	B	256	-63.006	103.894	274.632	1	62.35	B	C
ATOM	981	CG	GLU	B	256	-62.699	105.128	275.461	1	55.24	B	C
ATOM	982	CD	GLU	B	256	-62.789	106.4	274.63	1	56.92	B	C
ATOM	983	OE1	GLU	B	256	-62.189	107.42	275.063	1	57.65	B	O
ATOM	984	OE2	GLU	B	256	-63.45	106.392	273.542	1	49.76	B	O
ATOM	985	C	GLU	B	256	-64.182	101.726	274.867	1	71.7	B	C
ATOM	986	O	GLU	B	256	-65.257	101.598	275.475	1	69.77	B	O
ATOM	987	N	ASN	B	257	-63.911	101.117	273.713	1	74.69	B	N
ATOM	988	CA	ASN	B	257	-64.883	100.225	273.069	1	76.5	B	C

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ATOM	989	CB	ASN	B	257	-64.384	99.696	271.726	1	76.92	B	C
ATOM	990	CG	ASN	B	257	-63.806	100.794	270.863	1	88.82	B	C
ATOM	991	OD1	ASN	B	257	-64.511	101.733	270.478	1	87.72	B	O
ATOM	992	ND2	ASN	B	257	-62.501	100.717	270.598	1	99.5	B	N
ATOM	993	C	ASN	B	257	-65.258	99.074	273.99	1	70.67	B	C
ATOM	994	O	ASN	B	257	-66.427	98.715	274.098	1	72.22	B	O
ATOM	995	N	CYS	B	258	-64.27	98.509	274.67	1	66.85	B	N
ATOM	996	CA	CYS	B	258	-64.53	97.431	275.612	1	68.46	B	C
ATOM	997	CB	CYS	B	258	-63.226	96.863	276.199	1	69.51	B	C
ATOM	998	SG	CYS	B	258	-63.497	95.506	277.354	1	83.17	B	S
ATOM	999	C	CYS	B	258	-65.461	97.952	276.705	1	64.19	B	C
ATOM	1000	O	CYS	B	258	-66.422	97.271	277.082	1	61.43	B	O
ATOM	1001	N	ILE	B	259	-65.176	99.169	277.185	1	64.85	B	N
ATOM	1002	CA	ILE	B	259	-65.968	99.803	278.242	1	58.88	B	C
ATOM	1003	CB	ILE	B	259	-65.269	101.012	278.912	1	53.67	B	C
ATOM	1004	CG1	ILE	B	259	-63.942	100.593	279.549	1	51.78	B	C
ATOM	1005	CD1	ILE	B	259	-63.078	101.72	280.077	1	49.51	B	C
ATOM	1006	CG2	ILE	B	259	-66.152	101.568	280.017	1	55.62	B	C
ATOM	1007	C	ILE	B	259	-67.358	100.209	277.746	1	58.84	B	C
ATOM	1008	O	ILE	B	259	-68.312	100.133	278.521	1	60.4	B	O
ATOM	1009	N	SER	B	260	-67.497	100.622	276.489	1	55.95	B	N
ATOM	1010	CA	SER	B	260	-68.839	100.947	275.983	1	62.55	B	C
ATOM	1011	CB	SER	B	260	-68.815	101.542	274.563	1	63.54	B	C
ATOM	1012	OG	SER	B	260	-67.942	100.864	273.678	1	62.27	B	O
ATOM	1013	C	SER	B	260	-69.826	99.772	276.089	1	63.66	B	C
ATOM	1014	O	SER	B	260	-70.936	99.953	276.594	1	69.51	B	O
ATOM	1015	N	THR	B	261	-69.399	98.58	275.687	1	66.76	B	N
ATOM	1016	CA	THR	B	261	-70.292	97.41	275.53	1	75.59	B	C
ATOM	1017	CB	THR	B	261	-69.822	96.539	274.337	1	81.69	B	C
ATOM	1018	OG1	THR	B	261	-68.428	96.243	274.505	1	80.58	B	O
ATOM	1019	CG2	THR	B	261	-70.033	97.248	272.976	1	80.39	B	C
ATOM	1020	C	THR	B	261	-70.274	96.553	276.802	1	76.81	B	C
ATOM	1021	O	THR	B	261	-69.935	95.366	276.757	1	79.36	B	O
ATOM	1022	N	LEU	B	262	-70.657	97.163	277.923	1	72.45	B	N
ATOM	1023	CA	LEU	B	262	-70.253	96.713	279.261	1	69.49	B	C
ATOM	1024	CB	LEU	B	262	-69.073	97.592	279.718	1	74.89	B	C
ATOM	1025	CG	LEU	B	262	-67.849	97.204	280.586	1	73.6	B	C
ATOM	1026	CD1	LEU	B	262	-68.061	97.598	282.037	1	72.63	B	C
ATOM	1027	CD2	LEU	B	262	-67.421	95.743	280.442	1	71.65	B	C
ATOM	1028	C	LEU	B	262	-71.447	96.836	280.183	1	67.72	B	C
ATOM	1029	O	LEU	B	262	-72.07	97.874	280.255	1	64.96	B	O
ATOM	1030	N	SER	B	263	-71.778	95.763	280.882	1	78.45	B	N
ATOM	1031	CA	SER	B	263	-73.117	95.613	281.483	1	79.71	B	C
ATOM	1032	CB	SER	B	263	-73.423	94.119	281.718	1	83.79	B	C
ATOM	1033	OG	SER	B	263	-72.738	93.265	280.799	1	86.14	B	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1034	C	SER	B	263	-73.233	96.415	282.786	1	80.76	B	C
ATOM	1035	O	SER	B	263	-72.424	97.295	283.037	1	82.62	B	O
ATOM	1036	N	LYS	B	264	-74.244	96.125	283.602	1	85.92	B	N
ATOM	1037	CA	LYS	B	264	-74.361	96.714	284.94	1	83.1	B	C
ATOM	1038	CB	LYS	B	264	-75.831	96.977	285.272	1	91.71	B	C
ATOM	1039	CG	LYS	B	264	-76.073	97.666	286.612	1	98.58	B	C
ATOM	1040	CD	LYS	B	264	-77.446	98.327	286.715	1	100.89	B	C
ATOM	1041	CE	LYS	B	264	-78.593	97.342	286.533	1	101.68	B	C
ATOM	1042	NZ	LYS	B	264	-79.147	97.355	285.148	1	102.31	B	N
ATOM	1043	C	LYS	B	264	-73.716	95.852	286.026	1	85.04	B	C
ATOM	1044	O	LYS	B	264	-73.368	96.374	287.087	1	84.77	B	O
ATOM	1045	N	GLN	B	265	-73.536	94.549	285.773	1	85.76	B	N
ATOM	1046	CA	GLN	B	265	-72.879	93.663	286.767	1	88.87	B	C
ATOM	1047	CB	GLN	B	265	-72.989	92.156	286.439	1	97.96	B	C
ATOM	1048	CG	GLN	B	265	-74.211	91.672	285.664	1	102.06	B	C
ATOM	1049	CD	GLN	B	265	-73.987	91.567	284.158	1	101.46	B	C
ATOM	1050	OE1	GLN	B	265	-72.853	91.539	283.675	1	103.73	B	O
ATOM	1051	NE2	GLN	B	265	-75.079	91.501	283.41	1	101.29	B	N
ATOM	1052	C	GLN	B	265	-71.387	94.021	286.924	1	81.15	B	C
ATOM	1053	O	GLN	B	265	-70.774	93.785	287.967	1	71.17	B	O
ATOM	1054	N	ASP	B	266	-70.83	94.61	285.871	1	75.09	B	N
ATOM	1055	CA	ASP	B	266	-69.431	95.001	285.814	1	69.46	B	C
ATOM	1056	CB	ASP	B	266	-69.04	95.254	284.356	1	71.44	B	C
ATOM	1057	CG	ASP	B	266	-69.552	94.161	283.405	1	75.57	B	C
ATOM	1058	OD1	ASP	B	266	-70.751	93.833	283.479	1	88.93	B	O
ATOM	1059	OD2	ASP	B	266	-68.78	93.635	282.582	1	75.75	B	O
ATOM	1060	C	ASP	B	266	-69.138	96.249	286.66	1	67.92	B	C
ATOM	1061	O	ASP	B	266	-67.971	96.564	286.925	1	59.44	B	O
ATOM	1062	N	LEU	B	267	-70.194	96.944	287.095	1	67.06	B	N
ATOM	1063	CA	LEU	B	267	-70.064	98.162	287.874	1	62.68	B	C
ATOM	1064	CB	LEU	B	267	-70.956	99.232	287.282	1	62.32	B	C
ATOM	1065	CG	LEU	B	267	-70.712	99.542	285.819	1	65.65	B	C
ATOM	1066	CD1	LEU	B	267	-71.56	100.756	285.487	1	70.32	B	C
ATOM	1067	CD2	LEU	B	267	-69.243	99.809	285.514	1	65.36	B	C
ATOM	1068	C	LEU	B	267	-70.411	98.004	289.333	1	62.29	B	C
ATOM	1069	O	LEU	B	267	-71.098	98.855	289.896	1	68.4	B	O
ATOM	1070	N	THR	B	268	-69.913	96.942	289.955	1	63.71	B	N
ATOM	1071	CA	THR	B	268	-69.887	96.834	291.415	1	69.58	B	C
ATOM	1072	CB	THR	B	268	-70.075	95.38	291.874	1	77.64	B	C
ATOM	1073	OG1	THR	B	268	-69.348	94.509	290.994	1	82.32	B	O
ATOM	1074	CG2	THR	B	268	-71.583	94.988	291.871	1	79.21	B	C
ATOM	1075	C	THR	B	268	-68.542	97.381	291.884	1	69.26	B	C
ATOM	1076	O	THR	B	268	-67.523	97.172	291.224	1	66.84	B	O
ATOM	1077	N	CYS	B	269	-68.547	98.12	292.991	1	74.36	B	N
ATOM	1078	CA	CYS	B	269	-67.336	98.787	293.471	1	71.08	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1079	CB	CYS	B	269	-67.605	100.218	293.907	1	69.56	B	C
ATOM	1080	SG	CYS	B	269	-66.089	101.082	294.377	1	77.12	B	S
ATOM	1081	C	CYS	B	269	-66.745	98.029	294.628	1	70.63	B	C
ATOM	1082	O	CYS	B	269	-67.458	97.456	295.438	1	71.12	B	O
ATOM	1083	N	SER	B	270	-65.422	98.046	294.7	1	83	B	N
ATOM	1084	CA	SER	B	270	-64.694	97.439	295.809	1	83.38	B	C
ATOM	1085	CB	SER	B	270	-63.192	97.684	295.65	1	79.12	B	C
ATOM	1086	OG	SER	B	270	-62.5	97.273	296.813	1	86.65	B	O
ATOM	1087	C	SER	B	270	-65.186	97.973	297.157	1	84.68	B	C
ATOM	1088	O	SER	B	270	-65.768	97.237	297.951	1	93.6	B	O
ATOM	1089	N	GLY	B	271	-64.972	99.26	297.399	1	83.28	B	N
ATOM	1090	CA	GLY	B	271	-65.248	99.838	298.707	1	88.83	B	C
ATOM	1091	C	GLY	B	271	-64.194	99.498	299.748	1	89.16	B	C
ATOM	1092	O	GLY	B	271	-64.378	99.794	300.927	1	87.55	B	O
ATOM	1093	N	SER	B	272	-63.082	98.902	299.31	1	88.56	B	N
ATOM	1094	CA	SER	B	272	-61.934	98.659	300.165	1	83.97	B	C
ATOM	1095	CB	SER	B	272	-60.899	97.792	299.443	1	80.45	B	C
ATOM	1096	OG	SER	B	272	-60.385	98.457	298.307	1	70.18	B	O
ATOM	1097	C	SER	B	272	-61.286	99.974	300.518	1	84.84	B	C
ATOM	1098	O	SER	B	272	-61.597	101.013	299.943	1	92.7	B	O
ATOM	1099	N	ASP	B	273	-60.355	99.918	301.452	1	87.14	B	N
ATOM	1100	CA	ASP	B	273	-59.63	101.109	301.86	1	88.25	B	C
ATOM	1101	CB	ASP	B	273	-59.076	100.944	303.275	1	87.05	B	C
ATOM	1102	CG	ASP	B	273	-60.185	100.861	304.329	1	91.78	B	C
ATOM	1103	OD1	ASP	B	273	-61.357	101.216	304.027	1	97.33	B	O
ATOM	1104	OD2	ASP	B	273	-59.885	100.441	305.469	1	93.12	B	O
ATOM	1105	C	ASP	B	273	-58.55	101.489	300.856	1	86.61	B	C
ATOM	1106	O	ASP	B	273	-58.114	102.641	300.84	1	97.53	B	O
ATOM	1107	N	ASP	B	274	-58.13	100.538	300.021	1	79.34	B	N
ATOM	1108	CA	ASP	B	274	-57.259	100.846	298.876	1	76.66	B	C
ATOM	1109	CB	ASP	B	274	-56.805	99.562	298.151	1	82.22	B	C
ATOM	1110	CG	ASP	B	274	-55.399	99.131	298.521	1	86.67	B	C
ATOM	1111	OD1	ASP	B	274	-55.029	99.243	299.709	1	97.96	B	O
ATOM	1112	OD2	ASP	B	274	-54.667	98.666	297.619	1	82.53	B	O
ATOM	1113	C	ASP	B	274	-58.011	101.73	297.896	1	74.32	B	C
ATOM	1114	O	ASP	B	274	-57.434	102.624	297.266	1	65.51	B	O
ATOM	1115	N	CYS	B	275	-59.307	101.448	297.761	1	78.62	B	N
ATOM	1116	CA	CYS	B	275	-60.189	102.205	296.883	1	72.49	B	C
ATOM	1117	CB	CYS	B	275	-61.529	101.473	296.737	1	68.72	B	C
ATOM	1118	SG	CYS	B	275	-62.82	102.347	295.841	1	69.62	B	S
ATOM	1119	C	CYS	B	275	-60.338	103.63	297.439	1	68.48	B	C
ATOM	1120	O	CYS	B	275	-59.979	104.612	296.758	1	62.4	B	O
ATOM	1121	N	LYS	B	276	-60.789	103.735	298.69	1	60.4	B	N
ATOM	1122	CA	LYS	B	276	-60.887	105.031	299.373	1	60.08	B	C
ATOM	1123	CB	LYS	B	276	-61.071	104.825	300.869	1	61.4	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1124	CG	LYS	B	276	-62.454	104.397	301.29	1	61.53	B	C
ATOM	1125	CD	LYS	B	276	-62.706	104.722	302.755	1	66.97	B	C
ATOM	1126	CE	LYS	B	276	-64.197	104.839	303.075	1	73.34	B	C
ATOM	1127	NZ	LYS	B	276	-64.504	104.933	304.537	1	73.95	B	N
ATOM	1128	C	LYS	B	276	-59.648	105.912	299.14	1	58.86	B	C
ATOM	1129	O	LYS	B	276	-59.753	107.048	298.703	1	55.7	B	O
ATOM	1130	N	ALA	B	277	-58.477	105.354	299.409	1	57.39	B	N
ATOM	1131	CA	ALA	B	277	-57.226	106.049	299.166	1	58.3	B	C
ATOM	1132	CB	ALA	B	277	-56.063	105.19	299.627	1	58.85	B	C
ATOM	1133	C	ALA	B	277	-57.043	106.425	297.694	1	59.9	B	C
ATOM	1134	O	ALA	B	277	-56.511	107.497	297.384	1	58.87	B	O
ATOM	1135	N	ALA	B	278	-57.451	105.536	296.79	1	64.1	B	N
ATOM	1136	CA	ALA	B	278	-57.376	105.824	295.351	1	62.52	B	C
ATOM	1137	CB	ALA	B	278	-57.624	104.579	294.522	1	66.13	B	C
ATOM	1138	C	ALA	B	278	-58.35	106.894	294.96	1	61	B	C
ATOM	1139	O	ALA	B	278	-58.035	107.692	294.094	1	62.97	B	O
ATOM	1140	N	TYR	B	279	-59.527	106.908	295.592	1	60.79	B	N
ATOM	1141	CA	TYR	B	279	-60.48	107.998	295.381	1	62.89	B	C
ATOM	1142	CB	TYR	B	279	-61.851	107.7	295.989	1	64.53	B	C
ATOM	1143	CG	TYR	B	279	-62.725	108.898	295.82	1	66.67	B	C
ATOM	1144	CD1	TYR	B	279	-63.07	109.337	294.547	1	63.56	B	C
ATOM	1145	CE1	TYR	B	279	-63.834	110.476	294.375	1	68.59	B	C
ATOM	1146	CZ	TYR	B	279	-64.241	111.215	295.485	1	66.88	B	C
ATOM	1147	OH	TYR	B	279	-64.997	112.344	295.291	1	69.83	B	O
ATOM	1148	CE2	TYR	B	279	-63.896	110.815	296.757	1	67.06	B	C
ATOM	1149	CD2	TYR	B	279	-63.123	109.666	296.921	1	70.55	B	C
ATOM	1150	C	TYR	B	279	-59.966	109.36	295.888	1	60.89	B	C
ATOM	1151	O	TYR	B	279	-60.106	110.371	295.197	1	64.01	B	O
ATOM	1152	N	ILE	B	280	-59.375	109.381	297.08	1	59.69	B	N
ATOM	1153	CA	ILE	B	280	-58.628	110.57	297.567	1	58.18	B	C
ATOM	1154	CB	ILE	B	280	-57.87	110.341	298.915	1	58.48	B	C
ATOM	1155	CG1	ILE	B	280	-58.727	109.689	300.032	1	62.93	B	C
ATOM	1156	CD1	ILE	B	280	-60.106	110.275	300.25	1	64.89	B	C
ATOM	1157	CG2	ILE	B	280	-57.338	111.654	299.458	1	57.05	B	C
ATOM	1158	C	ILE	B	280	-57.595	111.094	296.542	1	57.1	B	C
ATOM	1159	O	ILE	B	280	-57.501	112.305	296.342	1	64.62	B	O
ATOM	1160	N	ASP	B	281	-56.839	110.214	295.885	1	54.15	B	N
ATOM	1161	CA	ASP	B	281	-55.78	110.672	294.971	1	57.84	B	C
ATOM	1162	CB	ASP	B	281	-54.825	109.537	294.589	1	69.28	B	C
ATOM	1163	CG	ASP	B	281	-53.822	109.229	295.667	1	76.47	B	C
ATOM	1164	OD1	ASP	B	281	-53.381	110.201	296.308	1	83.29	B	O
ATOM	1165	OD2	ASP	B	281	-53.474	108.026	295.86	1	80.11	B	O
ATOM	1166	C	ASP	B	281	-56.261	111.323	293.682	1	57.56	B	C
ATOM	1167	O	ASP	B	281	-55.446	111.96	292.985	1	52.68	B	O
ATOM	1168	N	ILE	B	282	-57.536	111.143	293.328	1	55.37	B	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1169	CA	ILE	B	282	-58.051	111.763	292.098	1	59.75	B	C
ATOM	1170	CB	ILE	B	282	-59.098	110.879	291.324	1	62.18	B	C
ATOM	1171	CG1	ILE	B	282	-60.536	111.044	291.862	1	58.89	B	C
ATOM	1172	CD1	ILE	B	282	-61.51	110.07	291.248	1	56.13	B	C
ATOM	1173	CG2	ILE	B	282	-58.671	109.407	291.288	1	57.65	B	C
ATOM	1174	C	ILE	B	282	-58.569	113.174	292.419	1	60.94	B	C
ATOM	1175	O	ILE	B	282	-58.723	114.008	291.51	1	57.67	B	O
ATOM	1176	N	LEU	B	283	-58.793	113.456	293.708	1	56.29	B	N
ATOM	1177	CA	LEU	B	283	-59.192	114.808	294.12	1	53.17	B	C
ATOM	1178	CB	LEU	B	283	-59.605	114.857	295.586	1	47.4	B	C
ATOM	1179	CG	LEU	B	283	-60.706	113.861	295.994	1	46.83	B	C
ATOM	1180	CD1	LEU	B	283	-60.946	113.884	297.5	1	49.4	B	C
ATOM	1181	CD2	LEU	B	283	-61.986	114.151	295.263	1	43.23	B	C
ATOM	1182	C	LEU	B	283	-58.042	115.767	293.831	1	55.14	B	C
ATOM	1183	O	LEU	B	283	-56.87	115.439	294.033	1	63.4	B	O
ATOM	1184	N	GLY	B	284	-58.392	116.936	293.325	1	55.16	B	N
ATOM	1185	CA	GLY	B	284	-57.423	117.89	292.833	1	55.33	B	C
ATOM	1186	C	GLY	B	284	-57.049	117.68	291.381	1	56.25	B	C
ATOM	1187	O	GLY	B	284	-56.073	118.272	290.913	1	59.64	B	O
ATOM	1188	N	THR	B	285	-57.831	116.863	290.665	1	51.5	B	N
ATOM	1189	CA	THR	B	285	-57.643	116.626	289.244	1	46.47	B	C
ATOM	1190	CB	THR	B	285	-57.289	115.158	288.977	1	47.97	B	C
ATOM	1191	OG1	THR	B	285	-58.423	114.335	289.27	1	46.8	B	O
ATOM	1192	CG2	THR	B	285	-56.11	114.706	289.843	1	51.67	B	C
ATOM	1193	C	THR	B	285	-58.929	116.915	288.499	1	49.26	B	C
ATOM	1194	O	THR	B	285	-59.995	117.162	289.106	1	52.67	B	O
ATOM	1195	N	VAL	B	286	-58.832	116.833	287.172	1	44.89	B	N
ATOM	1196	CA	VAL	B	286	-59.944	117.081	286.299	1	43.13	B	C
ATOM	1197	CB	VAL	B	286	-59.52	116.914	284.815	1	43.81	B	C
ATOM	1198	CG1	VAL	B	286	-59.365	115.455	284.456	1	48.59	B	C
ATOM	1199	CG2	VAL	B	286	-60.495	117.588	283.856	1	43.23	B	C
ATOM	1200	C	VAL	B	286	-61.096	116.163	286.721	1	47.68	B	C
ATOM	1201	O	VAL	B	286	-62.234	116.578	286.719	1	55.05	B	O
ATOM	1202	N	LEU	B	287	-60.783	114.949	287.175	1	48.59	B	N
ATOM	1203	CA	LEU	B	287	-61.785	113.939	287.575	1	45.21	B	C
ATOM	1204	CB	LEU	B	287	-61.095	112.593	287.912	1	47.1	B	C
ATOM	1205	CG	LEU	B	287	-60.079	111.958	286.943	1	45.22	B	C
ATOM	1206	CD1	LEU	B	287	-59.545	110.691	287.533	1	42.19	B	C
ATOM	1207	CD2	LEU	B	287	-60.728	111.693	285.593	1	48.76	B	C
ATOM	1208	C	LEU	B	287	-62.618	114.318	288.786	1	45.25	B	C
ATOM	1209	O	LEU	B	287	-63.426	113.517	289.233	1	42.64	B	O
ATOM	1210	N	GLN	B	288	-62.375	115.482	289.382	1	47.75	B	N
ATOM	1211	CA	GLN	B	288	-63.179	115.935	290.511	1	49.78	B	C
ATOM	1212	CB	GLN	B	288	-62.277	116.615	291.542	1	54.27	B	C
ATOM	1213	CG	GLN	B	288	-62.918	116.787	292.908	1	56.55	B	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1214	CD	GLN	B	288	-62.141	117.698	293.866	1	62.39	B	C
ATOM	1215	OE1	GLN	B	288	-61.065	118.241	293.548	1	65.45	B	O
ATOM	1216	NE2	GLN	B	288	-62.712	117.895	295.054	1	64.86	B	N
ATOM	1217	C	GLN	B	288	-64.271	116.893	290.036	1	46.19	B	C
ATOM	1218	O	GLN	B	288	-65.277	117.04	290.72	1	52.13	B	O
ATOM	1219	N	VAL	B	289	-64.073	117.503	288.867	1	37.71	B	N
ATOM	1220	CA	VAL	B	289	-64.966	118.497	288.312	1	37.32	B	C
ATOM	1221	CB	VAL	B	289	-64.412	119.148	287.008	1	39.57	B	C
ATOM	1222	CG1	VAL	B	289	-65.359	120.199	286.446	1	40.25	B	C
ATOM	1223	CG2	VAL	B	289	-63.034	119.77	287.2	1	40.59	B	C
ATOM	1224	C	VAL	B	289	-66.215	117.728	287.922	1	39.85	B	C
ATOM	1225	O	VAL	B	289	-66.125	116.809	287.114	1	36.85	B	O
ATOM	1226	N	GLN	B	290	-67.363	118.126	288.486	1	43.56	B	N
ATOM	1227	CA	GLN	B	290	-68.666	117.518	288.201	1	46.74	B	C
ATOM	1228	CB	GLN	B	290	-69.779	118.312	288.869	1	50.37	B	C
ATOM	1229	CG	GLN	B	290	-71.136	117.646	288.777	1	53.18	B	C
ATOM	1230	CD	GLN	B	290	-71.546	117.003	290.077	1	60.42	B	C
ATOM	1231	OE1	GLN	B	290	-71.518	117.643	291.135	1	72.36	B	O
ATOM	1232	NE2	GLN	B	290	-71.962	115.746	290.011	1	59.35	B	N
ATOM	1233	C	GLN	B	290	-68.931	117.489	286.7	1	46.72	B	C
ATOM	1234	O	GLN	B	290	-68.903	118.538	286.055	1	45.16	B	O
ATOM	1235	N	CYS	B	291	-69.19	116.294	286.165	1	47.23	B	N
ATOM	1236	CA	CYS	B	291	-69.424	116.128	284.735	1	49.68	B	C
ATOM	1237	CB	CYS	B	291	-68.472	115.091	284.144	1	47.85	B	C
ATOM	1238	SG	CYS	B	291	-68.626	113.44	284.814	1	45.13	B	S
ATOM	1239	C	CYS	B	291	-70.879	115.804	284.381	1	51.79	B	C
ATOM	1240	O	CYS	B	291	-71.668	115.382	285.23	1	55.86	B	O
ATOM	1241	N	THR	B	292	-71.225	116.028	283.117	1	53.44	B	N
ATOM	1242	CA	THR	B	292	-72.571	115.75	282.624	1	57.36	B	C
ATOM	1243	CB	THR	B	292	-73.334	117.043	282.345	1	56.45	B	C
ATOM	1244	OG1	THR	B	292	-74.729	116.754	282.306	1	67.52	B	O
ATOM	1245	CG2	THR	B	292	-72.902	117.684	281.05	1	61.08	B	C
ATOM	1246	C	THR	B	292	-72.484	114.858	281.391	1	56.71	B	C
ATOM	1247	O	THR	B	292	-71.38	114.639	280.867	1	56.17	B	O
ATOM	1248	N	CYS	B	293	-73.609	114.277	280.973	1	50.59	B	N
ATOM	1249	CA	CYS	B	293	-73.616	113.554	279.694	1	51.83	B	C
ATOM	1250	CB	CYS	B	293	-74.037	112.085	279.822	1	52.23	B	C
ATOM	1251	SG	CYS	B	293	-72.751	110.945	280.465	1	68.46	B	S
ATOM	1252	C	CYS	B	293	-74.414	114.296	278.635	1	50.56	B	C
ATOM	1253	O	CYS	B	293	-74.471	113.82	277.499	1	49.2	B	O
ATOM	1254	N	ARG	B	294	-74.973	115.478	278.945	1	45.45	B	N
ATOM	1255	CA	ARG	B	294	-75.613	116.211	277.874	1	44.26	B	C
ATOM	1256	CB	ARG	B	294	-76.564	117.304	278.327	1	43.5	B	C
ATOM	1257	CG	ARG	B	294	-76.095	118.578	278.942	1	38.92	B	C
ATOM	1258	CD	ARG	B	294	-77.268	119.581	278.94	1	39.9	B	C

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ATOM	1259	NE	ARG	B	294	-77.003	120.79	278.149	1	43.8	B	N
ATOM	1260	CZ	ARG	B	294	-77.91	121.695	277.774	1	48.03	B	C
ATOM	1261	NH1	ARG	B	294	-77.516	122.727	277.05	1	51.71	B	N
ATOM	1262	NH2	ARG	B	294	-79.205	121.598	278.098	1	51.78	B	N
ATOM	1263	C	ARG	B	294	-74.584	116.702	276.953	1	45.95	B	C
ATOM	1264	O	ARG	B	294	-73.465	116.954	277.378	1	58.87	B	O
ATOM	1265	N	THR	B	295	-74.975	116.859	275.694	1	48.95	B	N
ATOM	1266	CA	THR	B	295	-74.084	117.149	274.578	1	47.73	B	C
ATOM	1267	CB	THR	B	295	-72.9	118.009	275.05	1	50.97	B	C
ATOM	1268	OG1	THR	B	295	-73.393	119.346	275.174	1	47.55	B	O
ATOM	1269	CG2	THR	B	295	-71.701	117.918	274.133	1	58.38	B	C
ATOM	1270	C	THR	B	295	-73.662	115.893	273.851	1	46.44	B	C
ATOM	1271	O	THR	B	295	-73.543	115.927	272.641	1	43.37	B	O
ATOM	1272	N	ILE	B	296	-73.49	114.79	274.584	1	47.27	B	N
ATOM	1273	CA	ILE	B	296	-72.964	113.547	274.046	1	45.56	B	C
ATOM	1274	CB	ILE	B	296	-72.619	112.572	275.176	1	47.89	B	C
ATOM	1275	CG1	ILE	B	296	-71.47	113.123	276.047	1	47.17	B	C
ATOM	1276	CD1	ILE	B	296	-70.22	113.521	275.298	1	46.2	B	C
ATOM	1277	CG2	ILE	B	296	-72.237	111.201	274.648	1	52.52	B	C
ATOM	1278	C	ILE	B	296	-73.918	112.874	273.078	1	50.83	B	C
ATOM	1279	O	ILE	B	296	-75.148	112.852	273.248	1	55.81	B	O
ATOM	1280	N	THR	B	297	-73.317	112.293	272.053	1	53.8	B	N
ATOM	1281	CA	THR	B	297	-74.056	111.748	270.949	1	51.23	B	C
ATOM	1282	CB	THR	B	297	-73.16	111.629	269.736	1	51.38	B	C
ATOM	1283	OG1	THR	B	297	-72.183	110.611	269.969	1	54.71	B	O
ATOM	1284	CG2	THR	B	297	-72.464	112.962	269.446	1	51.47	B	C
ATOM	1285	C	THR	B	297	-74.518	110.359	271.301	1	55.37	B	C
ATOM	1286	O	THR	B	297	-73.969	109.736	272.222	1	48.55	B	O
ATOM	1287	N	GLN	B	298	-75.49	109.856	270.538	1	58.67	B	N
ATOM	1288	CA	GLN	B	298	-76.052	108.509	270.783	1	56.97	B	C
ATOM	1289	CB	GLN	B	298	-77.161	108.2	269.785	1	56.92	B	C
ATOM	1290	CG	GLN	B	298	-78.404	109.017	270.055	1	58.54	B	C
ATOM	1291	CD	GLN	B	298	-79.32	109.165	268.866	1	59.26	B	C
ATOM	1292	OE1	GLN	B	298	-80.467	108.72	268.908	1	64.77	B	O
ATOM	1293	NE2	GLN	B	298	-78.844	109.822	267.818	1	60.2	B	N
ATOM	1294	C	GLN	B	298	-74.989	107.405	270.767	1	55.27	B	C
ATOM	1295	O	GLN	B	298	-75.086	106.478	271.549	1	58.45	B	O
ATOM	1296	N	SER	B	299	-73.982	107.527	269.897	1	52.27	B	N
ATOM	1297	CA	SER	B	299	-72.843	106.609	269.868	1	52.69	B	C
ATOM	1298	CB	SER	B	299	-71.913	106.929	268.704	1	52.79	B	C
ATOM	1299	OG	SER	B	299	-71.532	108.303	268.708	1	53.16	B	O
ATOM	1300	C	SER	B	299	-72.049	106.631	271.174	1	54.29	B	C
ATOM	1301	O	SER	B	299	-71.896	105.588	271.824	1	65.31	B	O
ATOM	1302	N	GLU	B	300	-71.574	107.803	271.589	1	49.94	B	N
ATOM	1303	CA	GLU	B	300	-70.741	107.881	272.814	1	51.31	B	C

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ATOM	1304	CB	GLU	B	300	-69.907	109.16	272.872	1	58.34	B	C
ATOM	1305	CG	GLU	B	300	-69.363	109.763	271.568	1	62.84	B	C
ATOM	1306	CD	GLU	B	300	-67.871	109.611	271.415	1	62.17	B	C
ATOM	1307	OE1	GLU	B	300	-67.195	110.623	271.134	1	57.62	B	O
ATOM	1308	OE2	GLU	B	300	-67.388	108.471	271.59	1	69.88	B	O
ATOM	1309	C	GLU	B	300	-71.579	107.77	274.114	1	48.13	B	C
ATOM	1310	O	GLU	B	300	-71.069	107.456	275.17	1	46.6	B	O
ATOM	1311	N	GLU	B	301	-72.877	108.008	273.999	1	50.28	B	N
ATOM	1312	CA	GLU	B	301	-73.843	108	275.107	1	48.69	B	C
ATOM	1313	CB	GLU	B	301	-75.233	107.8	274.533	1	49.47	B	C
ATOM	1314	CG	GLU	B	301	-76.359	108.131	275.487	1	55.62	B	C
ATOM	1315	CD	GLU	B	301	-77.687	107.612	274.988	1	54.06	B	C
ATOM	1316	OE1	GLU	B	301	-78.287	106.731	275.669	1	50.48	B	O
ATOM	1317	OE2	GLU	B	301	-78.095	108.087	273.9	1	53.37	B	O
ATOM	1318	C	GLU	B	301	-73.659	106.976	276.195	1	49.21	B	C
ATOM	1319	O	GLU	B	301	-73.907	107.255	277.364	1	55.95	B	O
ATOM	1320	N	SER	B	302	-73.279	105.774	275.808	1	53.26	B	N
ATOM	1321	CA	SER	B	302	-73.26	104.631	276.721	1	49.6	B	C
ATOM	1322	CB	SER	B	302	-73.349	103.351	275.909	1	51.31	B	C
ATOM	1323	OG	SER	B	302	-73.965	102.34	276.661	1	58.95	B	O
ATOM	1324	C	SER	B	302	-71.984	104.644	277.515	1	51.52	B	C
ATOM	1325	O	SER	B	302	-71.968	104.338	278.713	1	50.99	B	O
ATOM	1326	N	LEU	B	303	-70.9	104.979	276.816	1	53.67	B	N
ATOM	1327	CA	LEU	B	303	-69.596	105.138	277.417	1	49.28	B	C
ATOM	1328	CB	LEU	B	303	-68.587	105.51	276.341	1	50.56	B	C
ATOM	1329	CG	LEU	B	303	-67.1	105.664	276.661	1	51.46	B	C
ATOM	1330	CD1	LEU	B	303	-66.55	104.493	277.467	1	53.45	B	C
ATOM	1331	CD2	LEU	B	303	-66.338	105.805	275.363	1	47.15	B	C
ATOM	1332	C	LEU	B	303	-69.695	106.231	278.459	1	50.12	B	C
ATOM	1333	O	LEU	B	303	-69.389	106.015	279.636	1	49.66	B	O
ATOM	1334	N	CYS	B	304	-70.186	107.386	278.037	1	50.97	B	N
ATOM	1335	CA	CYS	B	304	-70.293	108.538	278.934	1	55.21	B	C
ATOM	1336	CB	CYS	B	304	-71.008	109.701	278.248	1	57.57	B	C
ATOM	1337	SG	CYS	B	304	-71.021	111.192	279.259	1	61.3	B	S
ATOM	1338	C	CYS	B	304	-70.979	108.194	280.25	1	50.14	B	C
ATOM	1339	O	CYS	B	304	-70.413	108.437	281.321	1	46.27	B	O
ATOM	1340	N	LYS	B	305	-72.167	107.595	280.159	1	49.79	B	N
ATOM	1341	CA	LYS	B	305	-72.913	107.15	281.354	1	49.05	B	C
ATOM	1342	CB	LYS	B	305	-74.249	106.482	280.987	1	50.9	B	C
ATOM	1343	CG	LYS	B	305	-75.352	107.468	280.563	1	55.84	B	C
ATOM	1344	CD	LYS	B	305	-76.759	106.827	280.478	1	61.98	B	C
ATOM	1345	CE	LYS	B	305	-77.391	106.997	279.074	1	66.9	B	C
ATOM	1346	NZ	LYS	B	305	-78.543	106.13	278.639	1	60.54	B	N
ATOM	1347	C	LYS	B	305	-72.085	106.256	282.279	1	44.51	B	C
ATOM	1348	O	LYS	B	305	-72.084	106.455	283.478	1	41.75	B	O

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ATOM	1349	N	ILE	B	306	-71.34	105.305	281.728	1	45.04	B	N
ATOM	1350	CA	ILE	B	306	-70.448	104.477	282.559	1	43.79	B	C
ATOM	1351	CB	ILE	B	306	-69.856	103.299	281.738	1	46.3	B	C
ATOM	1352	CG1	ILE	B	306	-70.979	102.295	281.402	1	50.38	B	C
ATOM	1353	CD1	ILE	B	306	-70.738	101.444	280.16	1	51.76	B	C
ATOM	1354	CG2	ILE	B	306	-68.728	102.575	282.468	1	42.97	B	C
ATOM	1355	C	ILE	B	306	-69.362	105.317	283.286	1	43.04	B	C
ATOM	1356	O	ILE	B	306	-69.128	105.123	284.481	1	41.37	B	O
ATOM	1357	N	PHE	B	307	-68.733	106.278	282.612	1	42.22	B	N
ATOM	1358	CA	PHE	B	307	-67.769	107.132	283.317	1	41.99	B	C
ATOM	1359	CB	PHE	B	307	-67.012	108.061	282.366	1	43.36	B	C
ATOM	1360	CG	PHE	B	307	-66.049	107.357	281.446	1	43.67	B	C
ATOM	1361	CD1	PHE	B	307	-65.181	106.385	281.917	1	44.15	B	C
ATOM	1362	CE1	PHE	B	307	-64.292	105.752	281.059	1	45.46	B	C
ATOM	1363	CZ	PHE	B	307	-64.258	106.097	279.716	1	46.4	B	C
ATOM	1364	CE2	PHE	B	307	-65.122	107.054	279.223	1	44.9	B	C
ATOM	1365	CD2	PHE	B	307	-66.002	107.686	280.091	1	47.28	B	C
ATOM	1366	C	PHE	B	307	-68.465	107.933	284.415	1	42.2	B	C
ATOM	1367	O	PHE	B	307	-68.042	107.901	285.582	1	40.5	B	O
ATOM	1368	N	GLN	B	308	-69.567	108.598	284.066	1	43.18	B	N
ATOM	1369	CA	GLN	B	308	-70.349	109.307	285.073	1	44.44	B	C
ATOM	1370	CB	GLN	B	308	-71.673	109.767	284.523	1	49.62	B	C
ATOM	1371	CG	GLN	B	308	-72.318	110.85	285.376	1	54	B	C
ATOM	1372	CD	GLN	B	308	-73.684	111.244	284.882	1	55.05	B	C
ATOM	1373	OE1	GLN	B	308	-74.44	110.409	284.396	1	63.82	B	O
ATOM	1374	NE2	GLN	B	308	-74.014	112.512	285.009	1	59.2	B	N
ATOM	1375	C	GLN	B	308	-70.599	108.444	286.301	1	43.46	B	C
ATOM	1376	O	GLN	B	308	-70.447	108.893	287.417	1	42.05	B	O
ATOM	1377	N	HIS	B	309	-70.946	107.185	286.079	1	47.79	B	N
ATOM	1378	CA	HIS	B	309	-71.175	106.273	287.173	1	46.82	B	C
ATOM	1379	CB	HIS	B	309	-71.736	104.946	286.678	1	43.83	B	C
ATOM	1380	CG	HIS	B	309	-72.041	104.001	287.793	1	47.55	B	C
ATOM	1381	ND1	HIS	B	309	-73.225	104.035	288.49	1	49.19	B	N
ATOM	1382	CE1	HIS	B	309	-73.202	103.12	289.442	1	52.63	B	C
ATOM	1383	NE2	HIS	B	309	-72.029	102.515	289.41	1	52.83	B	N
ATOM	1384	CD2	HIS	B	309	-71.287	103.045	288.383	1	50.6	B	C
ATOM	1385	C	HIS	B	309	-69.901	106.064	288.009	1	50.31	B	C
ATOM	1386	O	HIS	B	309	-69.926	106.162	289.245	1	52.98	B	O
ATOM	1387	N	MET	B	310	-68.789	105.784	287.349	1	49.13	B	N
ATOM	1388	CA	MET	B	310	-67.577	105.391	288.085	1	50.25	B	C
ATOM	1389	CB	MET	B	310	-66.537	104.843	287.118	1	51.98	B	C
ATOM	1390	CG	MET	B	310	-66.977	103.513	286.549	1	55.1	B	C
ATOM	1391	SD	MET	B	310	-65.752	102.712	285.527	1	55.29	B	S
ATOM	1392	CE	MET	B	310	-65.496	103.995	284.31	1	55.31	B	C
ATOM	1393	C	MET	B	310	-66.986	106.537	288.878	1	47.22	B	C

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ATOM	1394	O	MET	B	310	-66.624	106.38	290.033	1	43.62	B	O
ATOM	1395	N	LEU	B	311	-66.949	107.696	288.233	1	47.16	B	N
ATOM	1396	CA	LEU	B	311	-66.448	108.929	288.812	1	44.06	B	C
ATOM	1397	CB	LEU	B	311	-66.414	110.012	287.74	1	43.28	B	C
ATOM	1398	CG	LEU	B	311	-65.418	109.798	286.601	1	46.39	B	C
ATOM	1399	CD1	LEU	B	311	-65.849	110.546	285.346	1	47.41	B	C
ATOM	1400	CD2	LEU	B	311	-64.036	110.233	287.047	1	45.58	B	C
ATOM	1401	C	LEU	B	311	-67.259	109.458	290.004	1	44.63	B	C
ATOM	1402	O	LEU	B	311	-66.752	110.295	290.741	1	46.22	B	O
ATOM	1403	N	HIS	B	312	-68.502	109.02	290.2	1	43.42	B	N
ATOM	1404	CA	HIS	B	312	-69.3	109.586	291.265	1	43.6	B	C
ATOM	1405	CB	HIS	B	312	-70.786	109.575	290.921	1	41.52	B	C
ATOM	1406	CG	HIS	B	312	-71.621	110.266	291.941	1	41.76	B	C
ATOM	1407	ND1	HIS	B	312	-71.533	111.626	292.166	1	46.84	B	N
ATOM	1408	CE1	HIS	B	312	-72.341	111.96	293.163	1	44.38	B	C
ATOM	1409	NE2	HIS	B	312	-72.946	110.865	293.589	1	42.94	B	N
ATOM	1410	CD2	HIS	B	312	-72.514	109.79	292.841	1	41.24	B	C
ATOM	1411	C	HIS	B	312	-68.991	108.819	292.545	1	53.42	B	C
ATOM	1412	O	HIS	B	312	-69.225	107.608	292.616	1	52.46	B	O
ATOM	1413	N	ARG	B	313	-68.486	109.526	293.566	1	62.92	B	N
ATOM	1414	CA	ARG	B	313	-67.948	108.869	294.777	1	66.53	B	C
ATOM	1415	CB	ARG	B	313	-67.252	109.858	295.711	1	71.79	B	C
ATOM	1416	CG	ARG	B	313	-68.143	110.637	296.67	1	81.64	B	C
ATOM	1417	CD	ARG	B	313	-67.291	111.472	297.619	1	83.04	B	C
ATOM	1418	NE	ARG	B	313	-68.057	112.433	298.42	1	88.82	B	N
ATOM	1419	CZ	ARG	B	313	-68.842	112.128	299.463	1	91.53	B	C
ATOM	1420	NH1	ARG	B	313	-69.028	110.857	299.865	1	86.19	B	N
ATOM	1421	NH2	ARG	B	313	-69.461	113.117	300.114	1	85.88	B	N
ATOM	1422	C	ARG	B	313	-68.989	108.124	295.556	1	64.76	B	C
ATOM	1423	O	ARG	B	313	-68.653	107.232	296.312	1	71.01	B	O
ATOM	1424	N	LYS	B	314	-70.245	108.52	295.388	1	66.45	B	N
ATOM	1425	CA	LYS	B	314	-71.379	107.813	295.985	1	62.21	B	C
ATOM	1426	CB	LYS	B	314	-72.623	108.697	295.977	1	67.76	B	C
ATOM	1427	CG	LYS	B	314	-73.285	108.913	297.32	1	70.94	B	C
ATOM	1428	CD	LYS	B	314	-72.807	110.201	297.971	1	71.59	B	C
ATOM	1429	CE	LYS	B	314	-73.104	110.179	299.456	1	78.76	B	C
ATOM	1430	NZ	LYS	B	314	-72.601	111.405	300.111	1	80.24	B	N
ATOM	1431	C	LYS	B	314	-71.696	106.512	295.272	1	58.47	B	C
ATOM	1432	O	LYS	B	314	-72.475	105.733	295.798	1	57.19	B	O
ATOM	1433	N	SER	B	315	-71.133	106.274	294.085	1	57.73	B	N
ATOM	1434	CA	SER	B	315	-71.232	104.944	293.471	1	63.31	B	C
ATOM	1435	CB	SER	B	315	-70.765	104.926	292.016	1	61.45	B	C
ATOM	1436	OG	SER	B	315	-71.635	105.685	291.204	1	60.75	B	O
ATOM	1437	C	SER	B	315	-70.506	103.846	294.235	1	68.09	B	C
ATOM	1438	O	SER	B	315	-70.864	102.682	294.073	1	73.66	B	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1439	N	CYS	B	316	-69.504	104.19	295.048	1	72.62	B	N
ATOM	1440	CA	CYS	B	316	-68.813	103.186	295.874	1	79.6	B	C
ATOM	1441	CB	CYS	B	316	-67.304	103.425	295.881	1	82.58	B	C
ATOM	1442	SG	CYS	B	316	-66.53	103.078	294.291	1	96.89	B	S
ATOM	1443	C	CYS	B	316	-69.32	103.159	297.299	1	82.55	B	C
ATOM	1444	O	CYS	B	316	-69.819	102.136	297.763	1	89.96	B	O
ATOM	1445	N	PHE	B	317	-69.199	104.299	297.976	1	85.18	B	N
ATOM	1446	CA	PHE	B	317	-69.368	104.38	299.427	1	83.73	B	C
ATOM	1447	CB	PHE	B	317	-68.068	104.83	300.151	1	86.92	B	C
ATOM	1448	CG	PHE	B	317	-66.842	104.849	299.284	1	81.44	B	C
ATOM	1449	CD1	PHE	B	317	-66.51	105.98	298.554	1	81.57	B	C
ATOM	1450	CE1	PHE	B	317	-65.387	106.006	297.739	1	81.57	B	C
ATOM	1451	CZ	PHE	B	317	-64.573	104.898	297.661	1	79.46	B	C
ATOM	1452	CE2	PHE	B	317	-64.89	103.768	298.394	1	82.69	B	C
ATOM	1453	CD2	PHE	B	317	-66.018	103.749	299.205	1	82.02	B	C
ATOM	1454	C	PHE	B	317	-70.447	105.393	299.747	1	78.25	B	C
ATOM	1455	O	PHE	B	317	-70.414	106.486	299.215	1	71.93	B	O
ATOM	1456	N	ASN	B	318	-71.391	105.012	300.608	1	83.85	B	N
ATOM	1457	CA	ASN	B	318	-72.211	105.97	301.364	1	86.39	B	C
ATOM	1458	CB	ASN	B	318	-73.335	106.585	300.501	1	91.72	B	C
ATOM	1459	CG	ASN	B	318	-74.17	105.55	299.743	1	90.66	B	C
ATOM	1460	OD1	ASN	B	318	-74.07	104.339	299.966	1	91.62	B	O
ATOM	1461	ND2	ASN	B	318	-75.016	106.043	298.838	1	82.91	B	N
ATOM	1462	C	ASN	B	318	-72.77	105.383	302.668	1	82.93	B	C
ATOM	1463	O	ASN	B	318	-72.234	105.643	303.75	1	79.66	B	O
TER	1464		ASN	B	318							
ATOM	1465	N	GLN	H	1	-78.593	128.411	261.256	1	104.77	AZ	00 N
ATOM	1466	CA	GLN	H	1	-78.813	128	262.68	1	109.07	AZ	00 C
ATOM	1467	CB	GLN	H	1	-79.634	129.055	263.431	1	102.09	AZ	00 C
ATOM	1468	C	GLN	H	1	-79.501	126.63	262.78	1	113.77	AZ	00 C
ATOM	1469	O	GLN	H	1	-80.063	126.13	261.791	1	108.83	AZ	00 O
ATOM	1470	N	ILE	H	2	-79.456	126.047	263.984	1	106.02	AZ	00 N
ATOM	1471	CA	ILE	H	2	-80.021	124.704	264.237	1	98.37	AZ	00 C
ATOM	1472	CB	ILE	H	2	-79.384	123.916	265.454	1	104.26	AZ	00 C
ATOM	1473	CG1	ILE	H	2	-80.436	123.174	266.307	1	100.55	AZ	00 C
ATOM	1474	CD1	ILE	H	2	-81.069	121.984	265.627	1	96.54	AZ	00 C
ATOM	1475	CG2	ILE	H	2	-78.561	124.79	266.404	1	107.28	AZ	00 C
ATOM	1476	C	ILE	H	2	-81.533	124.85	264.362	1	88.79	AZ	00 C
ATOM	1477	O	ILE	H	2	-81.998	125.697	265.113	1	84.91	AZ	00 O
ATOM	1478	N	GLN	H	3	-82.279	124.025	263.619	1	86.9	AZ	00 N
ATOM	1479	CA	GLN	H	3	-83.741	124.021	263.655	1	80.03	AZ	00 C
ATOM	1480	CB	GLN	H	3	-84.256	125.009	262.623	1	79.23	AZ	00 C
ATOM	1481	CG	GLN	H	3	-85.677	125.469	262.868	1	84.32	AZ	00 C
ATOM	1482	CD	GLN	H	3	-86.126	126.54	261.884	1	94.19	AZ	00 C
ATOM	1483	OE1	GLN	H	3	-85.425	126.851	260.91	1	100.27	AZ	00 O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1484	NE2	GLN	H	3	-87.298	127.118	262.136	1	98.46	AZ	00 N
ATOM	1485	C	GLN	H	3	-84.321	122.624	263.389	1	74.37	AZ	00 C
ATOM	1486	O	GLN	H	3	-83.69	121.815	262.714	1	80.63	AZ	00 O
ATOM	1487	N	LEU	H	4	-85.495	122.345	263.953	1	66.9	AZ	00 N
ATOM	1488	CA	LEU	H	4	-86.292	121.174	263.602	1	73.66	AZ	00 C
ATOM	1489	CB	LEU	H	4	-86.532	120.236	264.783	1	75.32	AZ	00 C
ATOM	1490	CG	LEU	H	4	-85.447	119.974	265.82	1	79.84	AZ	00 C
ATOM	1491	CD1	LEU	H	4	-86.022	118.989	266.833	1	83.8	AZ	00 C
ATOM	1492	CD2	LEU	H	4	-84.149	119.441	265.236	1	78.83	AZ	00 C
ATOM	1493	C	LEU	H	4	-87.648	121.659	263.144	1	80.64	AZ	00 C
ATOM	1494	O	LEU	H	4	-88.311	122.391	263.878	1	74.01	AZ	00 O
ATOM	1495	N	VAL	H	5	-88.076	121.24	261.952	1	87.34	AZ	00 N
ATOM	1496	CA	VAL	H	5	-89.334	121.728	261.395	1	89.74	AZ	00 C
ATOM	1497	CB	VAL	H	5	-89.142	122.443	260.047	1	90.83	AZ	00 C
ATOM	1498	CG1	VAL	H	5	-90.297	123.423	259.826	1	86.36	AZ	00 C
ATOM	1499	CG2	VAL	H	5	-87.783	123.141	259.981	1	91.23	AZ	00 C
ATOM	1500	C	VAL	H	5	-90.301	120.588	261.188	1	88.02	AZ	00 C
ATOM	1501	O	VAL	H	5	-89.905	119.515	260.723	1	84.1	AZ	00 O
ATOM	1502	N	GLN	H	6	-91.567	120.85	261.501	1	81.12	AZ	00 N
ATOM	1503	CA	GLN	H	6	-92.604	119.838	261.462	1	80.38	AZ	00 C
ATOM	1504	CB	GLN	H	6	-93.359	119.85	262.787	1	77.91	AZ	00 C
ATOM	1505	CG	GLN	H	6	-92.501	119.49	263.992	1	74.6	AZ	00 C
ATOM	1506	CD	GLN	H	6	-93.265	119.5	265.307	1	75.9	AZ	00 C
ATOM	1507	OE1	GLN	H	6	-92.746	119.965	266.31	1	83.15	AZ	00 O
ATOM	1508	NE2	GLN	H	6	-94.498	118.993	265.313	1	75.59	AZ	00 N
ATOM	1509	C	GLN	H	6	-93.594	120.014	260.308	1	84.92	AZ	00 C
ATOM	1510	O	GLN	H	6	-93.567	121.011	259.596	1	77.58	AZ	00 O
ATOM	1511	N	SER	H	7	-94.463	119.017	260.138	1	95.64	AZ	00 N
ATOM	1512	CA	SER	H	7	-95.515	119.049	259.12	1	91.86	AZ	00 C
ATOM	1513	CB	SER	H	7	-96.076	117.643	258.837	1	89.06	AZ	00 C
ATOM	1514	OG	SER	H	7	-97.085	117.271	259.771	1	89.9	AZ	00 O
ATOM	1515	C	SER	H	7	-96.641	119.98	259.551	1	92.24	AZ	00 C
ATOM	1516	O	SER	H	7	-96.811	120.278	260.743	1	98.64	AZ	00 O
ATOM	1517	N	GLY	H	8	-97.415	120.416	258.56	1	86.99	AZ	00 N
ATOM	1518	CA	GLY	H	8	-98.512	121.343	258.762	1	76.44	AZ	00 C
ATOM	1519	C	GLY	H	8	-99.653	120.683	259.497	1	77.25	AZ	00 C
ATOM	1520	O	GLY	H	8	-99.629	119.458	259.708	1	76.34	AZ	00 O
ATOM	1521	N	PRO	H	9	-100.664	121.487	259.896	1	78.24	AZ	00 N
ATOM	1522	CA	PRO	H	9	-101.78	120.982	260.719	1	73.84	AZ	00 C
ATOM	1523	CB	PRO	H	9	-102.591	122.244	261.054	1	74.14	AZ	00 C
ATOM	1524	CG	PRO	H	9	-101.752	123.411	260.636	1	75.31	AZ	00 C
ATOM	1525	CD	PRO	H	9	-100.824	122.92	259.569	1	73.57	AZ	00 C
ATOM	1526	C	PRO	H	9	-102.648	119.967	259.981	1	75.28	AZ	00 C
ATOM	1527	O	PRO	H	9	-102.597	119.883	258.751	1	72.67	AZ	00 O
ATOM	1528	N	GLU	H	10	-103.444	119.219	260.738	1	75.09	AZ	00 N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1529	CA	GLU	H	10	-104.13	118.052	260.216	1	80.56	AZ	00 C
ATOM	1530	CB	GLU	H	10	-103.378	116.769	260.623	1	79.42	AZ	00 C
ATOM	1531	CG	GLU	H	10	-101.956	116.605	260.042	1	82.29	AZ	00 C
ATOM	1532	CD	GLU	H	10	-101.887	116.045	258.619	1	84.01	AZ	00 C
ATOM	1533	OE1	GLU	H	10	-100.816	116.165	257.965	1	80.71	AZ	00 O
ATOM	1534	OE2	GLU	H	10	-102.892	115.474	258.148	1	90.79	AZ	00 O
ATOM	1535	C	GLU	H	10	-105.583	117.998	260.692	1	84.47	AZ	00 C
ATOM	1536	O	GLU	H	10	-105.86	118.137	261.877	1	83.27	AZ	00 O
ATOM	1537	N	LEU	H	11	-106.506	117.833	259.742	1	93.93	AZ	00 N
ATOM	1538	CA	LEU	H	11	-107.89	117.477	260.035	1	95.02	AZ	00 C
ATOM	1539	CB	LEU	H	11	-108.853	118.372	259.253	1	97.14	AZ	00 C
ATOM	1540	CG	LEU	H	11	-110.361	118.129	259.445	1	99.18	AZ	00 C
ATOM	1541	CD1	LEU	H	11	-110.825	118.527	260.837	1	91.73	AZ	00 C
ATOM	1542	CD2	LEU	H	11	-111.161	118.876	258.383	1	100.43	AZ	00 C
ATOM	1543	C	LEU	H	11	-108.035	116.023	259.615	1	90.66	AZ	00 C
ATOM	1544	O	LEU	H	11	-107.53	115.638	258.565	1	87.81	AZ	00 O
ATOM	1545	N	LYS	H	12	-108.705	115.225	260.44	1	83.77	AZ	00 N
ATOM	1546	CA	LYS	H	12	-108.798	113.777	260.219	1	88.82	AZ	00 C
ATOM	1547	CB	LYS	H	12	-107.462	113.059	260.515	1	80.99	AZ	00 C
ATOM	1548	CG	LYS	H	12	-106.527	112.892	259.322	1	71.81	AZ	00 C
ATOM	1549	C	LYS	H	12	-109.886	113.231	261.13	1	98.4	AZ	00 C
ATOM	1550	O	LYS	H	12	-109.797	113.387	262.347	1	98.63	AZ	00 O
ATOM	1551	N	LYS	H	13	-110.901	112.594	260.538	1	108.78	AZ	00 N
ATOM	1552	CA	LYS	H	13	-112.109	112.193	261.27	1	107.16	AZ	00 C
ATOM	1553	CB	LYS	H	13	-113.304	111.968	260.318	1	125.11	AZ	00 C
ATOM	1554	CG	LYS	H	13	-113.868	113.23	259.658	1	134.1	AZ	00 C
ATOM	1555	CD	LYS	H	13	-113.122	113.667	258.403	1	131.71	AZ	00 C
ATOM	1556	CE	LYS	H	13	-113.879	114.771	257.676	1	133.7	AZ	00 C
ATOM	1557	NZ	LYS	H	13	-114.008	116.014	258.488	1	129.76	AZ	00 N
ATOM	1558	C	LYS	H	13	-111.818	110.934	262.074	1	91.63	AZ	00 C
ATOM	1559	O	LYS	H	13	-110.889	110.205	261.734	1	88.59	AZ	00 O
ATOM	1560	N	PRO	H	14	-112.599	110.673	263.145	1	87.78	AZ	00 N
ATOM	1561	CA	PRO	H	14	-112.324	109.541	264.067	1	89.82	AZ	00 C
ATOM	1562	CB	PRO	H	14	-113.607	109.455	264.906	1	87.67	AZ	00 C
ATOM	1563	CG	PRO	H	14	-114.052	110.879	265.003	1	87.44	AZ	00 C
ATOM	1564	CD	PRO	H	14	-113.655	111.55	263.694	1	88.55	AZ	00 C
ATOM	1565	C	PRO	H	14	-112.003	108.191	263.428	1	85.54	AZ	00 C
ATOM	1566	O	PRO	H	14	-112.164	108.017	262.216	1	94.2	AZ	00 O
ATOM	1567	N	GLY	H	15	-111.498	107.263	264.242	1	81.64	AZ	00 N
ATOM	1568	CA	GLY	H	15	-111.068	105.934	263.771	1	72.85	AZ	00 C
ATOM	1569	C	GLY	H	15	-109.965	105.846	262.709	1	69.57	AZ	00 C
ATOM	1570	O	GLY	H	15	-109.375	104.78	262.564	1	60.16	AZ	00 O
ATOM	1571	N	GLU	H	16	-109.685	106.933	261.968	1	75.48	AZ	00 N
ATOM	1572	CA	GLU	H	16	-108.676	106.931	260.895	1	84.72	AZ	00 C
ATOM	1573	CB	GLU	H	16	-108.836	108.161	259.977	1	88.91	AZ	00 C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1574	CG	GLU	H	16	-110.173	108.364	259.284	1	96.48	AZ	00 C
ATOM	1575	CD	GLU	H	16	-110.209	109.684	258.499	1	102.68	AZ	00 C
ATOM	1576	OE1	GLU	H	16	-109.335	109.917	257.623	1	100.99	AZ	00 O
ATOM	1577	OE2	GLU	H	16	-111.11	110.505	258.759	1	94.16	AZ	00 O
ATOM	1578	C	GLU	H	16	-107.254	106.959	261.49	1	87.52	AZ	00 C
ATOM	1579	O	GLU	H	16	-107.072	106.855	262.708	1	84.09	AZ	00 O
ATOM	1580	N	THR	H	17	-106.255	107.104	260.618	1	87.23	AZ	00 N
ATOM	1581	CA	THR	H	17	-104.868	107.326	261.018	1	79.2	AZ	00 C
ATOM	1582	CB	THR	H	17	-103.996	106.176	260.507	1	73.24	AZ	00 C
ATOM	1583	OG1	THR	H	17	-103.648	106.421	259.138	1	71.84	AZ	00 O
ATOM	1584	CG2	THR	H	17	-104.731	104.839	260.661	1	67.9	AZ	00 C
ATOM	1585	C	THR	H	17	-104.306	108.667	260.49	1	80.71	AZ	00 C
ATOM	1586	O	THR	H	17	-104.986	109.388	259.758	1	80.82	AZ	00 O
ATOM	1587	N	VAL	H	18	-103.069	108.985	260.893	1	87.17	AZ	00 N
ATOM	1588	CA	VAL	H	18	-102.333	110.219	260.477	1	86.13	AZ	00 C
ATOM	1589	CB	VAL	H	18	-102.858	111.52	261.162	1	82.79	AZ	00 C
ATOM	1590	CG1	VAL	H	18	-102.92	111.364	262.673	1	86.03	AZ	00 C
ATOM	1591	CG2	VAL	H	18	-102.007	112.74	260.807	1	77.5	AZ	00 C
ATOM	1592	C	VAL	H	18	-100.839	110.056	260.774	1	79.07	AZ	00 C
ATOM	1593	O	VAL	H	18	-100.479	109.386	261.754	1	69.03	AZ	00 O
ATOM	1594	N	LYS	H	19	-100.008	110.673	259.921	1	74.14	AZ	00 N
ATOM	1595	CA	LYS	H	19	-98.556	110.519	259.922	1	73.57	AZ	00 C
ATOM	1596	CB	LYS	H	19	-98.11	109.729	258.676	1	77.51	AZ	00 C
ATOM	1597	CG	LYS	H	19	-96.653	109.266	258.652	1	79.73	AZ	00 C
ATOM	1598	CD	LYS	H	19	-96.458	107.959	259.412	1	85.72	AZ	00 C
ATOM	1599	CE	LYS	H	19	-96.317	106.743	258.503	1	90.24	AZ	00 C
ATOM	1600	NZ	LYS	H	19	-94.929	106.612	257.967	1	96.4	AZ	00 N
ATOM	1601	C	LYS	H	19	-97.942	111.904	259.901	1	73.13	AZ	00 C
ATOM	1602	O	LYS	H	19	-98.024	112.59	258.889	1	71.11	AZ	00 O
ATOM	1603	N	ILE	H	20	-97.318	112.298	261.016	1	79.94	AZ	00 N
ATOM	1604	CA	ILE	H	20	-96.712	113.641	261.199	1	79.17	AZ	00 C
ATOM	1605	CB	ILE	H	20	-97.094	114.226	262.58	1	82.11	AZ	00 C
ATOM	1606	CG1	ILE	H	20	-98.616	114.337	262.731	1	81.3	AZ	00 C
ATOM	1607	CD1	ILE	H	20	-99.084	114.342	264.172	1	78.83	AZ	00 C
ATOM	1608	CG2	ILE	H	20	-96.455	115.594	262.8	1	86.36	AZ	00 C
ATOM	1609	C	ILE	H	20	-95.185	113.54	261.105	1	71.49	AZ	00 C
ATOM	1610	O	ILE	H	20	-94.615	112.505	261.462	1	65.98	AZ	00 O
ATOM	1611	N	SER	H	21	-94.539	114.615	260.649	1	64.23	AZ	00 N
ATOM	1612	CA	SER	H	21	-93.098	114.619	260.407	1	70.94	AZ	00 C
ATOM	1613	CB	SER	H	21	-92.79	114.841	258.924	1	74.92	AZ	00 C
ATOM	1614	OG	SER	H	21	-93.138	113.691	258.179	1	86.79	AZ	00 O
ATOM	1615	C	SER	H	21	-92.389	115.679	261.22	1	72.87	AZ	00 C
ATOM	1616	O	SER	H	21	-93.018	116.579	261.759	1	76.25	AZ	00 O
ATOM	1617	N	CYS	H	22	-91.072	115.53	261.299	1	67.01	AZ	00 N
ATOM	1618	CA	CYS	H	22	-90.19	116.458	261.959	1	69.26	AZ	00 C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1619	CB	CYS	H	22	-90.02	116.086	263.458	1	69.6	AZ	00 C
ATOM	1620	SG	CYS	H	22	-88.909	117.151	264.47	1	72.02	AZ	00 S
ATOM	1621	C	CYS	H	22	-88.879	116.314	261.189	1	77.19	AZ	00 C
ATOM	1622	O	CYS	H	22	-88.331	115.202	261.148	1	81.32	AZ	00 O
ATOM	1623	N	LYS	H	23	-88.413	117.394	260.546	1	70.42	AZ	00 N
ATOM	1624	CA	LYS	H	23	-87.167	117.372	259.801	1	72.5	AZ	00 C
ATOM	1625	CB	LYS	H	23	-87.364	117.835	258.346	1	80.7	AZ	00 C
ATOM	1626	CG	LYS	H	23	-86.061	117.895	257.522	1	86.58	AZ	00 C
ATOM	1627	CD	LYS	H	23	-86.278	118.271	256.067	1	93.41	AZ	00 C
ATOM	1628	CE	LYS	H	23	-86.75	117.083	255.231	1	99.23	AZ	00 C
ATOM	1629	NZ	LYS	H	23	-87.583	117.494	254.063	1	98.38	AZ	00 N
ATOM	1630	C	LYS	H	23	-86.134	118.254	260.484	1	73.42	AZ	00 C
ATOM	1631	O	LYS	H	23	-86.348	119.454	260.669	1	82.29	AZ	00 O
ATOM	1632	N	ALA	H	24	-84.99	117.653	260.782	1	70.94	AZ	00 N
ATOM	1633	CA	ALA	H	24	-83.895	118.305	261.478	1	76.97	AZ	00 C
ATOM	1634	CB	ALA	H	24	-83.158	117.29	262.333	1	78.82	AZ	00 C
ATOM	1635	C	ALA	H	24	-82.924	118.924	260.503	1	87.54	AZ	00 C
ATOM	1636	O	ALA	H	24	-82.757	118.435	259.381	1	105.68	AZ	00 O
ATOM	1637	N	SER	H	25	-82.245	119.974	260.955	1	85.49	AZ	00 N
ATOM	1638	CA	SER	H	25	-81.358	120.749	260.09	1	84.59	AZ	00 C
ATOM	1639	CB	SER	H	25	-82.185	121.655	259.143	1	79.68	AZ	00 C
ATOM	1640	OG	SER	H	25	-83.578	121.665	259.47	1	71.96	AZ	00 O
ATOM	1641	C	SER	H	25	-80.398	121.567	260.942	1	83.55	AZ	00 C
ATOM	1642	O	SER	H	25	-80.838	122.344	261.788	1	92.86	AZ	00 O
ATOM	1643	N	GLY	H	26	-79.1	121.388	260.718	1	74.9	AZ	00 N
ATOM	1644	CA	GLY	H	26	-78.068	122.114	261.457	1	78.98	AZ	00 C
ATOM	1645	C	GLY	H	26	-77.069	121.277	262.253	1	82.16	AZ	00 C
ATOM	1646	O	GLY	H	26	-76.253	121.836	263.011	1	85.95	AZ	00 O
ATOM	1647	N	TYR	H	27	-77.114	119.954	262.095	1	70.24	AZ	00 N
ATOM	1648	CA	TYR	H	27	-76.226	119.055	262.835	1	67.53	AZ	00 C
ATOM	1649	CB	TYR	H	27	-76.603	119.023	264.333	1	64.95	AZ	00 C
ATOM	1650	CG	TYR	H	27	-77.981	118.461	264.613	1	60.31	AZ	00 C
ATOM	1651	CD1	TYR	H	27	-79.118	119.259	264.505	1	55.5	AZ	00 C
ATOM	1652	CE1	TYR	H	27	-80.383	118.742	264.752	1	56.27	AZ	00 C
ATOM	1653	CZ	TYR	H	27	-80.524	117.412	265.112	1	64.07	AZ	00 C
ATOM	1654	OH	TYR	H	27	-81.78	116.907	265.37	1	71.98	AZ	00 O
ATOM	1655	CE2	TYR	H	27	-79.408	116.592	265.23	1	63.61	AZ	00 C
ATOM	1656	CD2	TYR	H	27	-78.147	117.12	264.986	1	61.95	AZ	00 C
ATOM	1657	C	TYR	H	27	-76.322	117.656	262.242	1	62.95	AZ	00 C
ATOM	1658	O	TYR	H	27	-77.145	117.419	261.393	1	61.19	AZ	00 O
ATOM	1659	N	THR	H	28	-75.518	116.715	262.709	1	65.1	AZ	00 N
ATOM	1660	CA	THR	H	28	-75.601	115.367	262.172	1	68.67	AZ	00 C
ATOM	1661	CB	THR	H	28	-74.325	114.551	262.438	1	76.84	AZ	00 C
ATOM	1662	OG1	THR	H	28	-73.158	115.354	262.182	1	87.98	AZ	00 O
ATOM	1663	CG2	THR	H	28	-74.303	113.302	261.577	1	82.09	AZ	00 C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1664	C	THR	H	28	-76.816	114.663	262.768	1	74.79	AZ	00 C
ATOM	1665	O	THR	H	28	-76.767	114.1	263.872	1	78.42	AZ	00 O
ATOM	1666	N	PHE	H	29	-77.915	114.701	262.027	1	74	AZ	00 N
ATOM	1667	CA	PHE	H	29	-79.13	113.94	262.359	1	71.47	AZ	00 C
ATOM	1668	CB	PHE	H	29	-79.869	113.582	261.07	1	67.54	AZ	00 C
ATOM	1669	CG	PHE	H	29	-81.166	112.881	261.297	1	60.36	AZ	00 C
ATOM	1670	CD1	PHE	H	29	-82.274	113.594	261.68	1	60.09	AZ	00 C
ATOM	1671	CE1	PHE	H	29	-83.483	112.968	261.892	1	66.18	AZ	00 C
ATOM	1672	CZ	PHE	H	29	-83.59	111.601	261.73	1	70.18	AZ	00 C
ATOM	1673	CE2	PHE	H	29	-82.482	110.873	261.34	1	70.63	AZ	00 C
ATOM	1674	CD2	PHE	H	29	-81.274	111.517	261.12	1	64.95	AZ	00 C
ATOM	1675	C	PHE	H	29	-78.924	112.649	263.176	1	73.17	AZ	00 C
ATOM	1676	O	PHE	H	29	-79.693	112.384	264.115	1	69.13	AZ	00 O
ATOM	1677	N	THR	H	30	-77.923	111.844	262.809	1	70.61	AZ	00 N
ATOM	1678	CA	THR	H	30	-77.687	110.582	263.511	1	78.35	AZ	00 C
ATOM	1679	CB	THR	H	30	-76.796	109.59	262.715	1	82.12	AZ	00 C
ATOM	1680	OG1	THR	H	30	-75.513	110.173	262.466	1	88.64	AZ	00 O
ATOM	1681	CG2	THR	H	30	-77.443	109.202	261.409	1	85.14	AZ	00 C
ATOM	1682	C	THR	H	30	-77.084	110.748	264.915	1	74.31	AZ	00 C
ATOM	1683	O	THR	H	30	-77.046	109.774	265.68	1	71.3	AZ	00 O
ATOM	1684	N	ASP	H	31	-76.592	111.933	265.281	1	69.46	AZ	00 N
ATOM	1685	CA	ASP	H	31	-75.929	112.016	266.593	1	73.5	AZ	00 C
ATOM	1686	CB	ASP	H	31	-74.494	112.605	266.53	1	75.95	AZ	00 C
ATOM	1687	CG	ASP	H	31	-74.416	113.983	265.986	1	74.97	AZ	00 C
ATOM	1688	OD1	ASP	H	31	-75.369	114.77	266.169	1	86.55	AZ	00 O
ATOM	1689	OD2	ASP	H	31	-73.342	114.279	265.417	1	62.94	AZ	00 O
ATOM	1690	C	ASP	H	31	-76.794	112.482	267.781	1	62.41	AZ	00 C
ATOM	1691	O	ASP	H	31	-76.363	112.383	268.919	1	60.97	AZ	00 O
ATOM	1692	N	TYR	H	32	-78.036	112.875	267.516	1	56.55	AZ	00 N
ATOM	1693	CA	TYR	H	32	-79.035	113.107	268.556	1	50.12	AZ	00 C
ATOM	1694	CB	TYR	H	32	-79.133	114.589	268.841	1	48.99	AZ	00 C
ATOM	1695	CG	TYR	H	32	-77.83	115.223	269.279	1	51.65	AZ	00 C
ATOM	1696	CD1	TYR	H	32	-77.118	114.718	270.359	1	53.52	AZ	00 C
ATOM	1697	CE1	TYR	H	32	-75.927	115.29	270.764	1	53.12	AZ	00 C
ATOM	1698	CZ	TYR	H	32	-75.447	116.418	270.107	1	49.46	AZ	00 C
ATOM	1699	OH	TYR	H	32	-74.281	117.014	270.511	1	41.36	AZ	00 O
ATOM	1700	CE2	TYR	H	32	-76.151	116.951	269.056	1	49.86	AZ	00 C
ATOM	1701	CD2	TYR	H	32	-77.33	116.351	268.644	1	51.91	AZ	00 C
ATOM	1702	C	TYR	H	32	-80.43	112.581	268.191	1	49.14	AZ	00 C
ATOM	1703	O	TYR	H	32	-80.984	112.887	267.137	1	52.09	AZ	00 O
ATOM	1704	N	GLY	H	33	-81.014	111.816	269.101	1	50.73	AZ	00 N
ATOM	1705	CA	GLY	H	33	-82.361	111.314	268.938	1	47.55	AZ	00 C
ATOM	1706	C	GLY	H	33	-83.396	112.408	268.991	1	46.9	AZ	00 C
ATOM	1707	O	GLY	H	33	-83.087	113.578	269.203	1	42.44	AZ	00 O
ATOM	1708	N	VAL	H	34	-84.64	112.001	268.798	1	49.11	AZ	00 N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1709	CA	VAL	H	34	-85.754	112.9	268.734	1	49.21	AZ	00 C
ATOM	1710	CB	VAL	H	34	-86.314	112.975	267.315	1	52.82	AZ	00 C
ATOM	1711	CG1	VAL	H	34	-87.51	113.932	267.272	1	56.02	AZ	00 C
ATOM	1712	CG2	VAL	H	34	-85.225	113.428	266.349	1	53.73	AZ	00 C
ATOM	1713	C	VAL	H	34	-86.85	112.409	269.657	1	51.7	AZ	00 C
ATOM	1714	O	VAL	H	34	-87.293	111.276	269.552	1	55.24	AZ	00 O
ATOM	1715	N	ILE	H	35	-87.296	113.31	270.527	1	54.11	AZ	00 N
ATOM	1716	CA	ILE	H	35	-88.365	113.089	271.498	1	51.99	AZ	00 C
ATOM	1717	CB	ILE	H	35	-88.052	113.884	272.784	1	49.97	AZ	00 C
ATOM	1718	CG1	ILE	H	35	-86.717	113.399	273.366	1	50.37	AZ	00 C
ATOM	1719	CD1	ILE	H	35	-85.939	114.476	274.065	1	54.42	AZ	00 C
ATOM	1720	CG2	ILE	H	35	-89.156	113.742	273.825	1	47.28	AZ	00 C
ATOM	1721	C	ILE	H	35	-89.695	113.542	270.909	1	55.53	AZ	00 C
ATOM	1722	O	ILE	H	35	-89.757	114.526	270.155	1	58.09	AZ	00 O
ATOM	1723	N	TRP	H	36	-90.755	112.812	271.235	1	53.61	AZ	00 N
ATOM	1724	CA	TRP	H	36	-92.105	113.239	270.887	1	54.31	AZ	00 C
ATOM	1725	CB	TRP	H	36	-92.862	112.132	270.136	1	57.01	AZ	00 C
ATOM	1726	CG	TRP	H	36	-92.353	111.982	268.758	1	52.99	AZ	00 C
ATOM	1727	CD1	TRP	H	36	-91.493	111.05	268.315	1	56.51	AZ	00 C
ATOM	1728	NE1	TRP	H	36	-91.225	111.248	266.982	1	60.33	AZ	00 N
ATOM	1729	CE2	TRP	H	36	-91.915	112.35	266.564	1	55.63	AZ	00 C
ATOM	1730	CD2	TRP	H	36	-92.642	112.827	267.659	1	50.44	AZ	00 C
ATOM	1731	CE3	TRP	H	36	-93.45	113.943	267.495	1	54	AZ	00 C
ATOM	1732	CZ3	TRP	H	36	-93.509	114.541	266.266	1	56	AZ	00 C
ATOM	1733	CH2	TRP	H	36	-92.771	114.043	265.185	1	60.69	AZ	00 C
ATOM	1734	CZ2	TRP	H	36	-91.966	112.95	265.316	1	59.19	AZ	00 C
ATOM	1735	C	TRP	H	36	-92.829	113.635	272.148	1	50.57	AZ	00 C
ATOM	1736	O	TRP	H	36	-92.882	112.858	273.088	1	43.99	AZ	00 O
ATOM	1737	N	VAL	H	37	-93.368	114.852	272.167	1	52.21	AZ	00 N
ATOM	1738	CA	VAL	H	37	-94.166	115.346	273.292	1	53.11	AZ	00 C
ATOM	1739	CB	VAL	H	37	-93.492	116.549	273.979	1	54.12	AZ	00 C
ATOM	1740	CG1	VAL	H	37	-94.148	116.868	275.312	1	51.81	AZ	00 C
ATOM	1741	CG2	VAL	H	37	-92.009	116.274	274.202	1	57.24	AZ	00 C
ATOM	1742	C	VAL	H	37	-95.528	115.766	272.76	1	53.45	AZ	00 C
ATOM	1743	O	VAL	H	37	-95.611	116.358	271.673	1	55.56	AZ	00 O
ATOM	1744	N	LYS	H	38	-96.574	115.468	273.534	1	50.94	AZ	00 N
ATOM	1745	CA	LYS	H	38	-97.948	115.826	273.205	1	56.09	AZ	00 C
ATOM	1746	CB	LYS	H	38	-98.85	114.588	273.321	1	64.21	AZ	00 C
ATOM	1747	CG	LYS	H	38	-100.35	114.834	273.199	1	66.97	AZ	00 C
ATOM	1748	CD	LYS	H	38	-101.16	113.602	273.549	1	70.54	AZ	00 C
ATOM	1749	CE	LYS	H	38	-102.626	113.967	273.798	1	73.53	AZ	00 C
ATOM	1750	NZ	LYS	H	38	-103.444	112.822	274.297	1	70.48	AZ	00 N
ATOM	1751	C	LYS	H	38	-98.448	116.865	274.183	1	56.92	AZ	00 C
ATOM	1752	O	LYS	H	38	-98.331	116.664	275.397	1	59.44	AZ	00 O
ATOM	1753	N	GLN	H	39	-99.032	117.94	273.65	1	55.26	AZ	00 N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1754	CA	GLN	H	39	-99.728	118.962	274.44	1	56.19	AZ	00 C
ATOM	1755	CB	GLN	H	39	-99.142	120.376	274.189	1	56.28	AZ	00 C
ATOM	1756	CG	GLN	H	39	-99.604	121.436	275.197	1	52.02	AZ	00 C
ATOM	1757	CD	GLN	H	39	-98.636	122.618	275.346	1	56.47	AZ	00 C
ATOM	1758	OE1	GLN	H	39	-98.112	123.165	274.356	1	51.15	AZ	00 O
ATOM	1759	NE2	GLN	H	39	-98.403	123.034	276.599	1	57.58	AZ	00 N
ATOM	1760	C	GLN	H	39	-101.226	118.982	274.117	1	60.31	AZ	00 C
ATOM	1761	O	GLN	H	39	-101.643	119.405	273.025	1	62.7	AZ	00 O
ATOM	1762	N	ALA	H	40	-102.012	118.572	275.102	1	59.09	AZ	00 N
ATOM	1763	CA	ALA	H	40	-103.463	118.685	275.105	1	63.37	AZ	00 C
ATOM	1764	CB	ALA	H	40	-103.974	118.161	276.456	1	63.15	AZ	00 C
ATOM	1765	C	ALA	H	40	-104.046	120.094	274.865	1	70.52	AZ	00 C
ATOM	1766	O	ALA	H	40	-103.325	121.043	274.602	1	71.73	AZ	00 O
ATOM	1767	N	PRO	H	41	-105.39	120.206	274.905	1	88.33	AZ	00 N
ATOM	1768	CA	PRO	H	41	-106.103	121.408	275.364	1	86.49	AZ	00 C
ATOM	1769	CB	PRO	H	41	-107.515	121.196	274.812	1	90.99	AZ	00 C
ATOM	1770	CG	PRO	H	41	-107.658	119.708	274.71	1	88.05	AZ	00 C
ATOM	1771	CD	PRO	H	41	-106.31	119.264	274.232	1	88.39	AZ	00 C
ATOM	1772	C	PRO	H	41	-106.151	121.449	276.899	1	82.03	AZ	00 C
ATOM	1773	O	PRO	H	41	-106.516	120.459	277.535	1	83.27	AZ	00 O
ATOM	1774	N	GLY	H	42	-105.789	122.582	277.488	1	77.92	AZ	00 N
ATOM	1775	CA	GLY	H	42	-105.55	122.657	278.936	1	77.68	AZ	00 C
ATOM	1776	C	GLY	H	42	-104.055	122.711	279.09	1	85.21	AZ	00 C
ATOM	1777	O	GLY	H	42	-103.525	123.27	280.047	1	86.35	AZ	00 O
ATOM	1778	N	LYS	H	43	-103.382	122.072	278.137	1	95.53	AZ	00 N
ATOM	1779	CA	LYS	H	43	-101.988	122.298	277.821	1	90.51	AZ	00 C
ATOM	1780	CB	LYS	H	43	-101.665	123.808	277.743	1	90.82	AZ	00 C
ATOM	1781	CG	LYS	H	43	-102.463	124.558	276.669	1	92.22	AZ	00 C
ATOM	1782	CD	LYS	H	43	-102.038	126.028	276.535	1	93.94	AZ	00 C
ATOM	1783	CE	LYS	H	43	-100.748	126.214	275.726	1	94.2	AZ	00 C
ATOM	1784	NZ	LYS	H	43	-99.793	127.212	276.314	1	88.8	AZ	00 N
ATOM	1785	C	LYS	H	43	-101.023	121.498	278.72	1	85.55	AZ	00 C
ATOM	1786	O	LYS	H	43	-99.812	121.711	278.638	1	93.59	AZ	00 O
ATOM	1787	N	ALA	H	44	-101.531	120.542	279.512	1	74.22	AZ	00 N
ATOM	1788	CA	ALA	H	44	-100.65	119.645	280.277	1	73.64	AZ	00 C
ATOM	1789	CB	ALA	H	44	-101.432	118.679	281.153	1	74.9	AZ	00 C
ATOM	1790	C	ALA	H	44	-99.815	118.878	279.278	1	69.6	AZ	00 C
ATOM	1791	O	ALA	H	44	-100.346	118.389	278.287	1	74.37	AZ	00 O
ATOM	1792	N	LEU	H	45	-98.51	118.799	279.531	1	64.86	AZ	00 N
ATOM	1793	CA	LEU	H	45	-97.556	118.21	278.584	1	53.26	AZ	00 C
ATOM	1794	CB	LEU	H	45	-96.275	119.032	278.54	1	48.55	AZ	00 C
ATOM	1795	CG	LEU	H	45	-96.295	120.206	277.581	1	45.36	AZ	00 C
ATOM	1796	CD1	LEU	H	45	-95.067	121.048	277.802	1	45.01	AZ	00 C
ATOM	1797	CD2	LEU	H	45	-96.309	119.736	276.136	1	44.22	AZ	00 C
ATOM	1798	C	LEU	H	45	-97.236	116.767	278.933	1	52.06	AZ	00 C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1799	O	LEU	H	45	-97.222	116.375	280.103	1	45.32	AZ	00 O
ATOM	1800	N	LYS	H	46	-96.955	115.983	277.897	1	56.46	AZ	00 N
ATOM	1801	CA	LYS	H	46	-96.834	114.535	278.037	1	53.85	AZ	00 C
ATOM	1802	CB	LYS	H	46	-98.18	113.9	277.712	1	54.39	AZ	00 C
ATOM	1803	CG	LYS	H	46	-98.207	112.395	277.866	1	56.7	AZ	00 C
ATOM	1804	CD	LYS	H	46	-99.437	111.897	278.61	1	56.18	AZ	00 C
ATOM	1805	CE	LYS	H	46	-99.409	110.38	278.752	1	59.01	AZ	00 C
ATOM	1806	NZ	LYS	H	46	-98.878	109.664	277.544	1	57.43	AZ	00 N
ATOM	1807	C	LYS	H	46	-95.755	113.963	277.142	1	49.05	AZ	00 C
ATOM	1808	O	LYS	H	46	-95.746	114.225	275.943	1	49.71	AZ	00 O
ATOM	1809	N	TRP	H	47	-94.868	113.173	277.737	1	47.67	AZ	00 N
ATOM	1810	CA	TRP	H	47	-93.736	112.557	277.021	1	49.08	AZ	00 C
ATOM	1811	CB	TRP	H	47	-92.583	112.313	277.998	1	49.99	AZ	00 C
ATOM	1812	CG	TRP	H	47	-91.347	111.674	277.461	1	48.12	AZ	00 C
ATOM	1813	CD1	TRP	H	47	-90.351	112.287	276.797	1	49.9	AZ	00 C
ATOM	1814	NE1	TRP	H	47	-89.352	111.392	276.509	1	53.3	AZ	00 N
ATOM	1815	CE2	TRP	H	47	-89.701	110.166	277	1	50.43	AZ	00 C
ATOM	1816	CD2	TRP	H	47	-90.953	110.305	277.612	1	50.88	AZ	00 C
ATOM	1817	CE3	TRP	H	47	-91.558	109.17	278.186	1	50.37	AZ	00 C
ATOM	1818	CZ3	TRP	H	47	-90.888	107.961	278.129	1	48.4	AZ	00 C
ATOM	1819	CH2	TRP	H	47	-89.623	107.855	277.507	1	48.58	AZ	00 C
ATOM	1820	CZ2	TRP	H	47	-89.023	108.942	276.94	1	51.7	AZ	00 C
ATOM	1821	C	TRP	H	47	-94.197	111.251	276.44	1	46.32	AZ	00 C
ATOM	1822	O	TRP	H	47	-94.638	110.373	277.169	1	44.66	AZ	00 O
ATOM	1823	N	MET	H	48	-94.097	111.152	275.124	1	52.78	AZ	00 N
ATOM	1824	CA	MET	H	48	-94.598	110.018	274.334	1	56.86	AZ	00 C
ATOM	1825	CB	MET	H	48	-94.811	110.438	272.87	1	64.49	AZ	00 C
ATOM	1826	CG	MET	H	48	-95.583	111.724	272.59	1	66.6	AZ	00 C
ATOM	1827	SD	MET	H	48	-97.339	111.472	272.609	1	74.13	AZ	00 S
ATOM	1828	CE	MET	H	48	-97.631	111.194	274.361	1	63.16	AZ	00 C
ATOM	1829	C	MET	H	48	-93.578	108.891	274.286	1	60.71	AZ	00 C
ATOM	1830	O	MET	H	48	-93.933	107.706	274.223	1	63.5	AZ	00 O
ATOM	1831	N	GLY	H	49	-92.305	109.283	274.287	1	58.13	AZ	00 N
ATOM	1832	CA	GLY	H	49	-91.212	108.408	273.964	1	51.67	AZ	00 C
ATOM	1833	C	GLY	H	49	-90.326	109.148	272.996	1	45.96	AZ	00 C
ATOM	1834	O	GLY	H	49	-90.46	110.338	272.796	1	47.5	AZ	00 O
ATOM	1835	N	TRP	H	50	-89.415	108.431	272.389	1	42.42	AZ	00 N
ATOM	1836	CA	TRP	H	50	-88.472	109.042	271.506	1	45.36	AZ	00 C
ATOM	1837	CB	TRP	H	50	-87.34	109.671	272.326	1	43.56	AZ	00 C
ATOM	1838	CG	TRP	H	50	-86.547	108.691	273.095	1	45.57	AZ	00 C
ATOM	1839	CD1	TRP	H	50	-86.94	108.029	274.196	1	50.52	AZ	00 C
ATOM	1840	NE1	TRP	H	50	-85.931	107.187	274.639	1	54.7	AZ	00 N
ATOM	1841	CE2	TRP	H	50	-84.87	107.307	273.789	1	47.51	AZ	00 C
ATOM	1842	CD2	TRP	H	50	-85.216	108.249	272.813	1	44.1	AZ	00 C
ATOM	1843	CE3	TRP	H	50	-84.296	108.558	271.83	1	48.11	AZ	00 C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1844	CZ3	TRP	H	50	-83.08	107.943	271.855	1	52.56	AZ	00 C
ATOM	1845	CH2	TRP	H	50	-82.761	107.023	272.845	1	53.39	AZ	00 C
ATOM	1846	CZ2	TRP	H	50	-83.649	106.699	273.826	1	49.82	AZ	00 C
ATOM	1847	C	TRP	H	50	-87.942	107.98	270.55	1	46.77	AZ	00 C
ATOM	1848	O	TRP	H	50	-88.184	106.771	270.73	1	46.92	AZ	00 O
ATOM	1849	N	ILE	H	51	-87.197	108.44	269.559	1	43.56	AZ	00 N
ATOM	1850	CA	ILE	H	51	-86.592	107.551	268.617	1	46.87	AZ	00 C
ATOM	1851	CB	ILE	H	51	-87.34	107.59	267.273	1	47.72	AZ	00 C
ATOM	1852	CG1	ILE	H	51	-86.899	106.404	266.402	1	51.91	AZ	00 C
ATOM	1853	CD1	ILE	H	51	-87.946	105.933	265.411	1	51.6	AZ	00 C
ATOM	1854	CG2	ILE	H	51	-87.126	108.915	266.555	1	45.77	AZ	00 C
ATOM	1855	C	ILE	H	51	-85.089	107.827	268.483	1	48.2	AZ	00 C
ATOM	1856	O	ILE	H	51	-84.659	108.952	268.301	1	50.81	AZ	00 O
ATOM	1857	N	ASN	H	52	-84.297	106.772	268.596	1	52.48	AZ	00 N
ATOM	1858	CA	ASN	H	52	-82.844	106.868	268.537	1	54.68	AZ	00 C
ATOM	1859	CB	ASN	H	52	-82.255	105.686	269.306	1	56.98	AZ	00 C
ATOM	1860	CG	ASN	H	52	-80.756	105.557	269.163	1	56.25	AZ	00 C
ATOM	1861	OD1	ASN	H	52	-80.158	105.899	268.146	1	58.45	AZ	00 O
ATOM	1862	ND2	ASN	H	52	-80.147	105.009	270.175	1	56.9	AZ	00 N
ATOM	1863	C	ASN	H	52	-82.447	106.822	267.074	1	57.04	AZ	00 C
ATOM	1864	O	ASN	H	52	-82.718	105.826	266.411	1	62.56	AZ	00 O
ATOM	1865	N	THR	H	53	-81.808	107.877	266.574	1	57.48	AZ	00 N
ATOM	1866	CA	THR	H	53	-81.591	108.049	265.122	1	60.89	AZ	00 C
ATOM	1867	CB	THR	H	53	-81.522	109.53	264.729	1	63.14	AZ	00 C
ATOM	1868	OG1	THR	H	53	-80.309	110.127	265.245	1	57.4	AZ	00 O
ATOM	1869	CG2	THR	H	53	-82.788	110.264	265.216	1	61.2	AZ	00 C
ATOM	1870	C	THR	H	53	-80.34	107.388	264.559	1	64.14	AZ	00 C
ATOM	1871	O	THR	H	53	-80.169	107.319	263.332	1	76.12	AZ	00 O
ATOM	1872	N	TYR	H	54	-79.467	106.943	265.458	1	64.16	AZ	00 N
ATOM	1873	CA	TYR	H	54	-78.262	106.164	265.13	1	62.4	AZ	00 C
ATOM	1874	CB	TYR	H	54	-77.236	106.433	266.222	1	61.87	AZ	00 C
ATOM	1875	CG	TYR	H	54	-75.882	105.802	266.068	1	57.74	AZ	00 C
ATOM	1876	CD1	TYR	H	54	-75.016	106.211	265.068	1	50.21	AZ	00 C
ATOM	1877	CE1	TYR	H	54	-73.756	105.663	264.956	1	56.3	AZ	00 C
ATOM	1878	CZ	TYR	H	54	-73.331	104.69	265.874	1	64.43	AZ	00 C
ATOM	1879	OH	TYR	H	54	-72.077	104.119	265.776	1	64.59	AZ	00 O
ATOM	1880	CE2	TYR	H	54	-74.168	104.292	266.908	1	66.16	AZ	00 C
ATOM	1881	CD2	TYR	H	54	-75.433	104.852	267.004	1	59.75	AZ	00 C
ATOM	1882	C	TYR	H	54	-78.545	104.651	265.037	1	60.13	AZ	00 C
ATOM	1883	O	TYR	H	54	-77.885	103.959	264.271	1	60.36	AZ	00 O
ATOM	1884	N	THR	H	55	-79.503	104.159	265.83	1	55.49	AZ	00 N
ATOM	1885	CA	THR	H	55	-79.91	102.747	265.842	1	55.54	AZ	00 C
ATOM	1886	CB	THR	H	55	-79.788	102.119	267.256	1	52.2	AZ	00 C
ATOM	1887	OG1	THR	H	55	-80.901	102.491	268.079	1	49.74	AZ	00 O
ATOM	1888	CG2	THR	H	55	-78.511	102.524	267.924	1	53.92	AZ	00 C

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ATOM	1889	C	THR	H	55	-81.347	102.474	265.349	1	59.37	AZ	00 C
ATOM	1890	O	THR	H	55	-81.74	101.306	265.237	1	57.3	AZ	00 O
ATOM	1891	N	GLY	H	56	-82.131	103.522	265.087	1	61.16	AZ	00 N
ATOM	1892	CA	GLY	H	56	-83.539	103.378	264.703	1	59.78	AZ	00 C
ATOM	1893	C	GLY	H	56	-84.507	102.952	265.805	1	63.5	AZ	00 C
ATOM	1894	O	GLY	H	56	-85.718	103.049	265.623	1	65.27	AZ	00 O
ATOM	1895	N	GLU	H	57	-84	102.488	266.944	1	63.51	AZ	00 N
ATOM	1896	CA	GLU	H	57	-84.83	101.869	267.968	1	68.31	AZ	00 C
ATOM	1897	CB	GLU	H	57	-83.9	101.237	269.02	1	77.12	AZ	00 C
ATOM	1898	CG	GLU	H	57	-84.572	100.388	270.092	1	90.34	AZ	00 C
ATOM	1899	CD	GLU	H	57	-85.315	99.172	269.542	1	100.48	AZ	00 C
ATOM	1900	OE1	GLU	H	57	-86.312	98.765	270.179	1	104.21	AZ	00 O
ATOM	1901	OE2	GLU	H	57	-84.913	98.622	268.486	1	97.89	AZ	00 O
ATOM	1902	C	GLU	H	57	-85.772	102.927	268.608	1	67.9	AZ	00 C
ATOM	1903	O	GLU	H	57	-85.302	103.948	269.101	1	73.24	AZ	00 O
ATOM	1904	N	PRO	H	58	-87.1	102.709	268.568	1	63.37	AZ	00 N
ATOM	1905	CA	PRO	H	58	-87.991	103.62	269.254	1	57.96	AZ	00 C
ATOM	1906	CB	PRO	H	58	-89.288	103.481	268.451	1	60.19	AZ	00 C
ATOM	1907	CG	PRO	H	58	-89.321	102.054	268.086	1	59.55	AZ	00 C
ATOM	1908	CD	PRO	H	58	-87.872	101.677	267.846	1	65.33	AZ	00 C
ATOM	1909	C	PRO	H	58	-88.235	103.164	270.671	1	53.34	AZ	00 C
ATOM	1910	O	PRO	H	58	-88.186	101.981	270.946	1	50.92	AZ	00 O
ATOM	1911	N	THR	H	59	-88.529	104.101	271.559	1	52.81	AZ	00 N
ATOM	1912	CA	THR	H	59	-88.975	103.769	272.904	1	49.62	AZ	00 C
ATOM	1913	CB	THR	H	59	-88.003	104.299	273.952	1	44.12	AZ	00 C
ATOM	1914	OG1	THR	H	59	-86.677	103.812	273.667	1	40.4	AZ	00 O
ATOM	1915	CG2	THR	H	59	-88.445	103.858	275.317	1	42.75	AZ	00 C
ATOM	1916	C	THR	H	59	-90.318	104.415	273.1	1	51.76	AZ	00 C
ATOM	1917	O	THR	H	59	-90.525	105.489	272.607	1	56.66	AZ	00 O
ATOM	1918	N	TYR	H	60	-91.226	103.752	273.81	1	54.92	AZ	00 N
ATOM	1919	CA	TYR	H	60	-92.616	104.223	273.952	1	53.11	AZ	00 C
ATOM	1920	CB	TYR	H	60	-93.617	103.294	273.246	1	50.95	AZ	00 C
ATOM	1921	CG	TYR	H	60	-93.384	103.161	271.757	1	51.75	AZ	00 C
ATOM	1922	CD1	TYR	H	60	-93.443	104.259	270.928	1	51.6	AZ	00 C
ATOM	1923	CE1	TYR	H	60	-93.234	104.136	269.564	1	55.37	AZ	00 C
ATOM	1924	CZ	TYR	H	60	-92.944	102.904	269.01	1	54.94	AZ	00 C
ATOM	1925	OH	TYR	H	60	-92.715	102.782	267.657	1	59.97	AZ	00 O
ATOM	1926	CE2	TYR	H	60	-92.87	101.797	269.813	1	55.2	AZ	00 C
ATOM	1927	CD2	TYR	H	60	-93.093	101.926	271.18	1	56.94	AZ	00 C
ATOM	1928	C	TYR	H	60	-92.984	104.308	275.405	1	52.44	AZ	00 C
ATOM	1929	O	TYR	H	60	-92.475	103.548	276.233	1	49.74	AZ	00 O
ATOM	1930	N	ALA	H	61	-93.874	105.245	275.706	1	52.34	AZ	00 N
ATOM	1931	CA	ALA	H	61	-94.344	105.435	277.054	1	55.65	AZ	00 C
ATOM	1932	CB	ALA	H	61	-94.974	106.796	277.196	1	55.93	AZ	00 C
ATOM	1933	C	ALA	H	61	-95.359	104.345	277.309	1	65.38	AZ	00 C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1934	O	ALA	H	61	-96.039	103.924	276.38	1	71.02	AZ	00 O
ATOM	1935	N	ASP	H	62	-95.463	103.895	278.558	1	75.77	AZ	00 N
ATOM	1936	CA	ASP	H	62	-96.248	102.698	278.89	1	81.08	AZ	00 C
ATOM	1937	CB	ASP	H	62	-96.178	102.378	280.401	1	79.82	AZ	00 C
ATOM	1938	CG	ASP	H	62	-94.942	101.525	280.775	1	87.98	AZ	00 C
ATOM	1939	OD1	ASP	H	62	-93.935	101.482	280.013	1	82.15	AZ	00 O
ATOM	1940	OD2	ASP	H	62	-94.988	100.871	281.84	1	95.5	AZ	00 O
ATOM	1941	C	ASP	H	62	-97.693	102.759	278.373	1	84.75	AZ	00 C
ATOM	1942	O	ASP	H	62	-98.025	102.104	277.381	1	87.63	AZ	00 O
ATOM	1943	N	ASP	H	63	-98.52	103.576	279.007	1	90.71	AZ	00 N
ATOM	1944	CA	ASP	H	63	-99.946	103.716	278.649	1	100.31	AZ	00 C
ATOM	1945	CB	ASP	H	63	-100.517	105.019	279.255	1	108.39	AZ	00 C
ATOM	1946	CG	ASP	H	63	-99.769	106.294	278.793	1	111.81	AZ	00 C
ATOM	1947	OD1	ASP	H	63	-98.567	106.215	278.442	1	114.38	AZ	00 O
ATOM	1948	OD2	ASP	H	63	-100.389	107.388	278.804	1	109.88	AZ	00 O
ATOM	1949	C	ASP	H	63	-100.339	103.649	277.155	1	99.06	AZ	00 C
ATOM	1950	O	ASP	H	63	-101.358	103.05	276.817	1	109.48	AZ	00 O
ATOM	1951	N	LEU	H	64	-99.549	104.258	276.272	1	96.55	AZ	00 N
ATOM	1952	CA	LEU	H	64	-100.014	104.518	274.906	1	93.96	AZ	00 C
ATOM	1953	CB	LEU	H	64	-99.336	105.755	274.305	1	94.54	AZ	00 C
ATOM	1954	CG	LEU	H	64	-97.84	105.915	274.071	1	91.99	AZ	00 C
ATOM	1955	CD1	LEU	H	64	-97.311	104.947	273.023	1	92.65	AZ	00 C
ATOM	1956	CD2	LEU	H	64	-97.606	107.357	273.638	1	91.14	AZ	00 C
ATOM	1957	C	LEU	H	64	-99.969	103.32	273.962	1	91.3	AZ	00 C
ATOM	1958	O	LEU	H	64	-100.557	103.383	272.886	1	82.78	AZ	00 O
ATOM	1959	N	LYS	H	65	-99.256	102.262	274.358	1	97.89	AZ	00 N
ATOM	1960	CA	LYS	H	65	-99.421	100.892	273.811	1	92.69	AZ	00 C
ATOM	1961	CB	LYS	H	65	-100.84	100.375	274.163	1	93.61	AZ	00 C
ATOM	1962	CG	LYS	H	65	-102.005	100.698	273.217	1	99.57	AZ	00 C
ATOM	1963	CD	LYS	H	65	-103.352	100.643	273.925	1	109.72	AZ	00 C
ATOM	1964	CE	LYS	H	65	-103.573	99.34	274.694	1	107.84	AZ	00 C
ATOM	1965	NZ	LYS	H	65	-103.075	99.372	276.102	1	105.64	AZ	00 N
ATOM	1966	C	LYS	H	65	-99.011	100.67	272.317	1	85.21	AZ	00 C
ATOM	1967	O	LYS	H	65	-98.03	101.281	271.831	1	84.7	AZ	00 O
ATOM	1968	N	GLY	H	66	-99.687	99.737	271.643	1	70.3	AZ	00 N
ATOM	1969	CA	GLY	H	66	-99.606	99.555	270.198	1	68.99	AZ	00 C
ATOM	1970	C	GLY	H	66	-100.124	100.636	269.259	1	63.15	AZ	00 C
ATOM	1971	O	GLY	H	66	-99.663	100.699	268.125	1	63.13	AZ	00 O
ATOM	1972	N	ARG	H	67	-101.044	101.494	269.695	1	58.86	AZ	00 N
ATOM	1973	CA	ARG	H	67	-101.64	102.53	268.788	1	63.26	AZ	00 C
ATOM	1974	CB	ARG	H	67	-102.76	103.313	269.509	1	66.65	AZ	00 C
ATOM	1975	CG	ARG	H	67	-104.155	102.729	269.296	1	71.56	AZ	00 C
ATOM	1976	CD	ARG	H	67	-105.209	103.362	270.199	1	72.36	AZ	00 C
ATOM	1977	NE	ARG	H	67	-105.225	104.815	270.041	1	72.34	AZ	00 N
ATOM	1978	CZ	ARG	H	67	-105.063	105.72	271.008	1	71.69	AZ	00 C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	1979	NH1	ARG	H	67	-105.085	107.007	270.681	1	70.38	AZ	00 N
ATOM	1980	NH2	ARG	H	67	-104.891	105.378	272.288	1	73.12	AZ	00 N
ATOM	1981	C	ARG	H	67	-100.705	103.54	268.052	1	62.24	AZ	00 C
ATOM	1982	O	ARG	H	67	-101.151	104.206	267.123	1	59.63	AZ	00 O
ATOM	1983	N	PHE	H	68	-99.437	103.645	268.458	1	69.49	AZ	00 N
ATOM	1984	CA	PHE	H	68	-98.491	104.66	267.956	1	65.98	AZ	00 C
ATOM	1985	CB	PHE	H	68	-98.072	105.637	269.082	1	72.1	AZ	00 C
ATOM	1986	CG	PHE	H	68	-99.212	106.377	269.741	1	64.8	AZ	00 C
ATOM	1987	CD1	PHE	H	68	-100.065	105.73	270.609	1	64.64	AZ	00 C
ATOM	1988	CE1	PHE	H	68	-101.109	106.396	271.216	1	69.51	AZ	00 C
ATOM	1989	CZ	PHE	H	68	-101.29	107.742	270.982	1	72.42	AZ	00 C
ATOM	1990	CE2	PHE	H	68	-100.429	108.408	270.134	1	70.64	AZ	00 C
ATOM	1991	CD2	PHE	H	68	-99.391	107.726	269.525	1	66.85	AZ	00 C
ATOM	1992	C	PHE	H	68	-97.212	104.002	267.49	1	61.81	AZ	00 C
ATOM	1993	O	PHE	H	68	-96.783	102.983	268.045	1	60.17	AZ	00 O
ATOM	1994	N	ALA	H	69	-96.553	104.609	266.52	1	61.79	AZ	00 N
ATOM	1995	CA	ALA	H	69	-95.25	104.09	266.105	1	62.11	AZ	00 C
ATOM	1996	CB	ALA	H	69	-95.436	102.982	265.095	1	60.56	AZ	00 C
ATOM	1997	C	ALA	H	69	-94.369	105.191	265.538	1	65.16	AZ	00 C
ATOM	1998	O	ALA	H	69	-94.816	105.944	264.653	1	65.17	AZ	00 O
ATOM	1999	N	PHE	H	70	-93.138	105.294	266.061	1	61.01	AZ	00 N
ATOM	2000	CA	PHE	H	70	-92.187	106.308	265.598	1	59.98	AZ	00 C
ATOM	2001	CB	PHE	H	70	-91.268	106.827	266.712	1	60.93	AZ	00 C
ATOM	2002	CG	PHE	H	70	-91.97	107.214	267.983	1	52.72	AZ	00 C
ATOM	2003	CD1	PHE	H	70	-93.139	107.942	267.956	1	51.28	AZ	00 C
ATOM	2004	CE1	PHE	H	70	-93.771	108.302	269.119	1	52.96	AZ	00 C
ATOM	2005	CZ	PHE	H	70	-93.227	107.939	270.337	1	53.99	AZ	00 C
ATOM	2006	CE2	PHE	H	70	-92.051	107.226	270.372	1	53.43	AZ	00 C
ATOM	2007	CD2	PHE	H	70	-91.422	106.877	269.202	1	50.42	AZ	00 C
ATOM	2008	C	PHE	H	70	-91.32	105.672	264.552	1	58.79	AZ	00 C
ATOM	2009	O	PHE	H	70	-90.98	104.503	264.671	1	63.1	AZ	00 O
ATOM	2010	N	SER	H	71	-90.906	106.466	263.579	1	61.04	AZ	00 N
ATOM	2011	CA	SER	H	71	-90.193	105.972	262.409	1	66.97	AZ	00 C
ATOM	2012	CB	SER	H	71	-91.196	105.816	261.257	1	72.73	AZ	00 C
ATOM	2013	OG	SER	H	71	-92.085	106.924	261.178	1	76.62	AZ	00 O
ATOM	2014	C	SER	H	71	-89.082	106.949	262.042	1	68.85	AZ	00 C
ATOM	2015	O	SER	H	71	-88.963	107.987	262.691	1	74.6	AZ	00 O
ATOM	2016	N	LEU	H	72	-88.285	106.62	261.017	1	68.55	AZ	00 N
ATOM	2017	CA	LEU	H	72	-87.251	107.53	260.47	1	71.33	AZ	00 C
ATOM	2018	CB	LEU	H	72	-85.85	107.153	260.959	1	69.6	AZ	00 C
ATOM	2019	CG	LEU	H	72	-85.59	107.125	262.455	1	74.18	AZ	00 C
ATOM	2020	CD1	LEU	H	72	-84.264	106.43	262.709	1	73.96	AZ	00 C
ATOM	2021	CD2	LEU	H	72	-85.586	108.531	263.04	1	77.37	AZ	00 C
ATOM	2022	C	LEU	H	72	-87.18	107.535	258.951	1	77.61	AZ	00 C
ATOM	2023	O	LEU	H	72	-87.693	106.647	258.282	1	96.99	AZ	00 O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	2024	N	GLU	H	73	-86.512	108.556	258.433	1	80.56	AZ	00 N
ATOM	2025	CA	GLU	H	73	-86.167	108.687	257.034	1	76.83	AZ	00 C
ATOM	2026	CB	GLU	H	73	-87.133	109.662	256.34	1	82.59	AZ	00 C
ATOM	2027	CG	GLU	H	73	-88.603	109.251	256.36	1	91.03	AZ	00 C
ATOM	2028	CD	GLU	H	73	-89.333	109.643	257.639	1	97.37	AZ	00 C
ATOM	2029	OE1	GLU	H	73	-89.921	108.742	258.297	1	90.43	AZ	00 O
ATOM	2030	OE2	GLU	H	73	-89.311	110.85	257.989	1	101.18	AZ	00 O
ATOM	2031	C	GLU	H	73	-84.741	109.239	257.015	1	76.96	AZ	00 C
ATOM	2032	O	GLU	H	73	-84.484	110.326	256.501	1	74.12	AZ	00 O
ATOM	2033	N	THR	H	74	-83.815	108.484	257.598	1	84.55	AZ	00 N
ATOM	2034	CA	THR	H	74	-82.427	108.951	257.823	1	92.3	AZ	00 C
ATOM	2035	CB	THR	H	74	-81.494	107.797	258.295	1	91.93	AZ	00 C
ATOM	2036	OG1	THR	H	74	-82.005	106.533	257.85	1	98.22	AZ	00 O
ATOM	2037	CG2	THR	H	74	-81.392	107.757	259.818	1	95.07	AZ	00 C
ATOM	2038	C	THR	H	74	-81.784	109.7	256.634	1	99.16	AZ	00 C
ATOM	2039	O	THR	H	74	-81.043	110.66	256.843	1	107.13	AZ	00 O
ATOM	2040	N	SER	H	75	-82.076	109.27	255.405	1	106.57	AZ	00 N
ATOM	2041	CA	SER	H	75	-81.62	109.971	254.188	1	102.8	AZ	00 C
ATOM	2042	CB	SER	H	75	-82.057	109.201	252.936	1	102.52	AZ	00 C
ATOM	2043	OG	SER	H	75	-83.438	108.874	252.998	1	98.55	AZ	00 O
ATOM	2044	C	SER	H	75	-82.126	111.415	254.102	1	101.52	AZ	00 C
ATOM	2045	O	SER	H	75	-81.398	112.297	253.649	1	100.57	AZ	00 O
ATOM	2046	N	ALA	H	76	-83.363	111.639	254.551	1	102.27	AZ	00 N
ATOM	2047	CA	ALA	H	76	-84.023	112.958	254.523	1	103.5	AZ	00 C
ATOM	2048	CB	ALA	H	76	-85.448	112.788	253.997	1	105.07	AZ	00 C
ATOM	2049	C	ALA	H	76	-84.052	113.719	255.874	1	97.52	AZ	00 C
ATOM	2050	O	ALA	H	76	-84.924	114.58	256.071	1	90.08	AZ	00 O
ATOM	2051	N	SER	H	77	-83.113	113.414	256.784	1	87.48	AZ	00 N
ATOM	2052	CA	SER	H	77	-83.009	114.08	258.107	1	77.89	AZ	00 C
ATOM	2053	CB	SER	H	77	-82.336	115.468	257.985	1	73.52	AZ	00 C
ATOM	2054	OG	SER	H	77	-80.928	115.361	257.879	1	71.67	AZ	00 O
ATOM	2055	C	SER	H	77	-84.362	114.209	258.832	1	74	AZ	00 C
ATOM	2056	O	SER	H	77	-84.731	115.29	259.297	1	67.97	AZ	00 O
ATOM	2057	N	SER	H	78	-85.104	113.114	258.925	1	68.62	AZ	00 N
ATOM	2058	CA	SER	H	78	-86.466	113.221	259.405	1	75.26	AZ	00 C
ATOM	2059	CB	SER	H	78	-87.426	113.393	258.223	1	79.66	AZ	00 C
ATOM	2060	OG	SER	H	78	-87.238	114.662	257.607	1	84.47	AZ	00 O
ATOM	2061	C	SER	H	78	-86.908	112.069	260.279	1	73.49	AZ	00 C
ATOM	2062	O	SER	H	78	-86.417	110.953	260.151	1	68.23	AZ	00 O
ATOM	2063	N	ALA	H	79	-87.835	112.379	261.184	1	68.67	AZ	00 N
ATOM	2064	CA	ALA	H	79	-88.475	111.396	262.034	1	66.83	AZ	00 C
ATOM	2065	CB	ALA	H	79	-88.057	111.583	263.478	1	67.03	AZ	00 C
ATOM	2066	C	ALA	H	79	-89.94	111.641	261.89	1	70.19	AZ	00 C
ATOM	2067	O	ALA	H	79	-90.343	112.752	261.537	1	78.6	AZ	00 O
ATOM	2068	N	SER	H	80	-90.734	110.613	262.171	1	69.63	AZ	00 N

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ATOM	2069	CA	SER	H	80	-92.173	110.695	262.015	1	69.89	AZ	00 C
ATOM	2070	CB	SER	H	80	-92.556	110.102	260.648	1	75.37	AZ	00 C
ATOM	2071	OG	SER	H	80	-91.735	110.62	259.6	1	68.52	AZ	00 O
ATOM	2072	C	SER	H	80	-92.921	109.989	263.152	1	69.75	AZ	00 C
ATOM	2073	O	SER	H	80	-92.413	109.038	263.751	1	75.77	AZ	00 O
ATOM	2074	N	LEU	H	81	-94.123	110.471	263.446	1	68.57	AZ	00 N
ATOM	2075	CA	LEU	H	81	-94.97	109.914	264.51	1	69.84	AZ	00 C
ATOM	2076	CB	LEU	H	81	-95.02	110.91	265.682	1	67.2	AZ	00 C
ATOM	2077	CG	LEU	H	81	-96.036	110.877	266.845	1	68.05	AZ	00 C
ATOM	2078	CD1	LEU	H	81	-97.164	111.875	266.67	1	69.63	AZ	00 C
ATOM	2079	CD2	LEU	H	81	-96.631	109.512	267.135	1	72.45	AZ	00 C
ATOM	2080	C	LEU	H	81	-96.368	109.567	263.942	1	71.29	AZ	00 C
ATOM	2081	O	LEU	H	81	-97.037	110.429	263.369	1	73.64	AZ	00 O
ATOM	2082	N	GLN	H	82	-96.781	108.303	264.093	1	70.91	AZ	00 N
ATOM	2083	CA	GLN	H	82	-98.017	107.793	263.512	1	73.18	AZ	00 C
ATOM	2084	CB	GLN	H	82	-97.739	106.58	262.62	1	83.35	AZ	00 C
ATOM	2085	CG	GLN	H	82	-98.949	106.167	261.773	1	91.73	AZ	00 C
ATOM	2086	CD	GLN	H	82	-98.769	104.839	261.06	1	87.8	AZ	00 C
ATOM	2087	OE1	GLN	H	82	-98.495	104.816	259.865	1	89.25	AZ	00 O
ATOM	2088	NE2	GLN	H	82	-98.935	103.73	261.788	1	80.49	AZ	00 N
ATOM	2089	C	GLN	H	82	-98.989	107.361	264.583	1	76.57	AZ	00 C
ATOM	2090	O	GLN	H	82	-98.604	106.617	265.486	1	74.19	AZ	00 O
ATOM	2091	N	ILE	H	83	-100.248	107.792	264.436	1	82.83	AZ	00 N
ATOM	2092	CA	ILE	H	83	-101.358	107.422	265.33	1	86.53	AZ	00 C
ATOM	2093	CB	ILE	H	83	-102.167	108.63	265.865	1	90.91	AZ	00 C
ATOM	2094	CG1	ILE	H	83	-101.321	109.902	266.037	1	95.06	AZ	00 C
ATOM	2095	CD1	ILE	H	83	-100.345	109.882	267.176	1	93.57	AZ	00 C
ATOM	2096	CG2	ILE	H	83	-102.908	108.25	267.146	1	93.94	AZ	00 C
ATOM	2097	C	ILE	H	83	-102.389	106.618	264.544	1	90.49	AZ	00 C
ATOM	2098	O	ILE	H	83	-102.716	106.973	263.415	1	91.21	AZ	00 O
ATOM	2099	N	ASN	H	84	-102.927	105.574	265.17	1	88.66	AZ	00 N
ATOM	2100	CA	ASN	H	84	-103.998	104.764	264.608	1	83.03	AZ	00 C
ATOM	2101	CB	ASN	H	84	-103.542	103.3	264.47	1	79.2	AZ	00 C
ATOM	2102	CG	ASN	H	84	-102.557	103.066	263.315	1	76.58	AZ	00 C
ATOM	2103	OD1	ASN	H	84	-102.301	103.935	262.476	1	76	AZ	00 O
ATOM	2104	ND2	ASN	H	84	-102.006	101.861	263.273	1	75.11	AZ	00 N
ATOM	2105	C	ASN	H	84	-105.207	104.845	265.539	1	86.54	AZ	00 C
ATOM	2106	O	ASN	H	84	-105.05	105.111	266.743	1	88.2	AZ	00 O
ATOM	2107	N	ASN	H	85	-106.396	104.602	264.975	1	84.09	AZ	00 N
ATOM	2108	CA	ASN	H	85	-107.68	104.617	265.707	1	84.92	AZ	00 C
ATOM	2109	CB	ASN	H	85	-107.821	103.387	266.615	1	86.74	AZ	00 C
ATOM	2110	CG	ASN	H	85	-107.814	102.09	265.829	1	96.54	AZ	00 C
ATOM	2111	OD1	ASN	H	85	-108.049	102.08	264.611	1	96.35	AZ	00 O
ATOM	2112	ND2	ASN	H	85	-107.527	100.987	266.514	1	97.08	AZ	00 N
ATOM	2113	C	ASN	H	85	-107.902	105.91	266.475	1	83.11	AZ	00 C

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ATOM	2114	O	ASN	H	85	-108.196	105.913	267.686	1	80.6	AZ	00 O
ATOM	2115	N	LEU	H	86	-107.765	107.007	265.734	1	77.17	AZ	00 N
ATOM	2116	CA	LEU	H	86	-107.784	108.344	266.307	1	81.33	AZ	00 C
ATOM	2117	CB	LEU	H	86	-107.723	109.407	265.198	1	82.33	AZ	00 C
ATOM	2118	CG	LEU	H	86	-106.394	109.556	264.447	1	83.05	AZ	00 C
ATOM	2119	CD1	LEU	H	86	-106.549	110.312	263.121	1	74.72	AZ	00 C
ATOM	2120	CD2	LEU	H	86	-105.377	110.214	265.373	1	82.71	AZ	00 C
ATOM	2121	C	LEU	H	86	-109.011	108.57	267.188	1	82.89	AZ	00 C
ATOM	2122	O	LEU	H	86	-110.086	108.906	266.688	1	94.35	AZ	00 O
ATOM	2123	N	LYS	H	87	-108.853	108.366	268.496	1	77.98	AZ	00 N
ATOM	2124	CA	LYS	H	87	-109.868	108.816	269.454	1	77.22	AZ	00 C
ATOM	2125	CB	LYS	H	87	-109.647	108.219	270.86	1	74.68	AZ	00 C
ATOM	2126	CG	LYS	H	87	-110.175	106.787	271.02	1	82.53	AZ	00 C
ATOM	2127	CD	LYS	H	87	-111.677	106.641	270.671	1	83.9	AZ	00 C
ATOM	2128	CE	LYS	H	87	-112.25	105.251	270.931	1	84.51	AZ	00 C
ATOM	2129	NZ	LYS	H	87	-112.619	105.008	272.362	1	83.09	AZ	00 N
ATOM	2130	C	LYS	H	87	-109.934	110.342	269.485	1	80.79	AZ	00 C
ATOM	2131	O	LYS	H	87	-109.074	111.033	268.923	1	84.27	AZ	00 O
ATOM	2132	N	ASN	H	88	-110.975	110.871	270.115	1	85.81	AZ	00 N
ATOM	2133	CA	ASN	H	88	-111.148	112.321	270.186	1	91.53	AZ	00 C
ATOM	2134	CB	ASN	H	88	-112.641	112.701	270.356	1	94.17	AZ	00 C
ATOM	2135	CG	ASN	H	88	-113.05	112.943	271.799	1	99.19	AZ	00 C
ATOM	2136	OD1	ASN	H	88	-112.372	112.531	272.745	1	104.54	AZ	00 O
ATOM	2137	ND2	ASN	H	88	-114.171	113.627	271.973	1	97.48	AZ	00 N
ATOM	2138	C	ASN	H	88	-110.191	112.915	271.246	1	86.44	AZ	00 C
ATOM	2139	O	ASN	H	88	-109.753	114.063	271.128	1	88.18	AZ	00 O
ATOM	2140	N	GLU	H	89	-109.852	112.104	272.252	1	80.75	AZ	00 N
ATOM	2141	CA	GLU	H	89	-108.736	112.388	273.17	1	83.18	AZ	00 C
ATOM	2142	CB	GLU	H	89	-108.499	111.225	274.151	1	91.43	AZ	00 C
ATOM	2143	CG	GLU	H	89	-109.627	110.949	275.158	1	92.45	AZ	00 C
ATOM	2144	CD	GLU	H	89	-110.431	109.679	274.855	1	92.96	AZ	00 C
ATOM	2145	OE1	GLU	H	89	-111.046	109.591	273.76	1	88.02	AZ	00 O
ATOM	2146	OE2	GLU	H	89	-110.46	108.771	275.72	1	91.97	AZ	00 O
ATOM	2147	C	GLU	H	89	-107.419	112.681	272.448	1	78.08	AZ	00 C
ATOM	2148	O	GLU	H	89	-106.629	113.466	272.937	1	93.82	AZ	00 O
ATOM	2149	N	ASP	H	90	-107.194	112.083	271.28	1	72.47	AZ	00 N
ATOM	2150	CA	ASP	H	90	-106.003	112.371	270.46	1	69.97	AZ	00 C
ATOM	2151	CB	ASP	H	90	-105.867	111.343	269.327	1	68.83	AZ	00 C
ATOM	2152	CG	ASP	H	90	-105.739	109.908	269.834	1	70.48	AZ	00 C
ATOM	2153	OD1	ASP	H	90	-105.787	109.678	271.059	1	66.99	AZ	00 O
ATOM	2154	OD2	ASP	H	90	-105.577	108.983	268.998	1	83.08	AZ	00 O
ATOM	2155	C	ASP	H	90	-105.964	113.784	269.858	1	68.91	AZ	00 C
ATOM	2156	O	ASP	H	90	-105.043	114.13	269.113	1	67.7	AZ	00 O
ATOM	2157	N	THR	H	91	-106.97	114.595	270.143	1	70.96	AZ	00 N
ATOM	2158	CA	THR	H	91	-106.964	115.969	269.687	1	76.01	AZ	00 C

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ATOM	2159	CB	THR	H	91	-108.367	116.613	269.787	1	84.13	AZ	00 C
ATOM	2160	OG1	THR	H	91	-109.355	115.737	269.209	1	85.53	AZ	00 O
ATOM	2161	CG2	THR	H	91	-108.383	117.959	269.065	1	80.24	AZ	00 C
ATOM	2162	C	THR	H	91	-105.961	116.732	270.538	1	66.66	AZ	00 C
ATOM	2163	O	THR	H	91	-106.113	116.793	271.767	1	58.42	AZ	00 O
ATOM	2164	N	ALA	H	92	-104.938	117.285	269.877	1	63.05	AZ	00 N
ATOM	2165	CA	ALA	H	92	-103.833	117.977	270.548	1	59.65	AZ	00 C
ATOM	2166	CB	ALA	H	92	-103.118	117.009	271.497	1	63.86	AZ	00 C
ATOM	2167	C	ALA	H	92	-102.823	118.588	269.556	1	59.78	AZ	00 C
ATOM	2168	O	ALA	H	92	-102.96	118.411	268.342	1	52.8	AZ	00 O
ATOM	2169	N	THR	H	93	-101.818	119.301	270.1	1	63.47	AZ	00 N
ATOM	2170	CA	THR	H	93	-100.601	119.719	269.372	1	62.9	AZ	00 C
ATOM	2171	CB	THR	H	93	-100.203	121.176	269.706	1	66.45	AZ	00 C
ATOM	2172	OG1	THR	H	93	-101.327	122.057	269.509	1	62.79	AZ	00 O
ATOM	2173	CG2	THR	H	93	-98.985	121.64	268.853	1	62.34	AZ	00 C
ATOM	2174	C	THR	H	93	-99.427	118.782	269.724	1	62.18	AZ	00 C
ATOM	2175	O	THR	H	93	-99.117	118.584	270.909	1	61.32	AZ	00 O
ATOM	2176	N	TYR	H	94	-98.793	118.218	268.69	1	59.2	AZ	00 N
ATOM	2177	CA	TYR	H	94	-97.733	117.204	268.834	1	59.15	AZ	00 C
ATOM	2178	CB	TYR	H	94	-98.007	115.939	267.957	1	63.07	AZ	00 C
ATOM	2179	CG	TYR	H	94	-99.188	115.156	268.504	1	63.85	AZ	00 C
ATOM	2180	CD1	TYR	H	94	-100.503	115.5	268.156	1	68.13	AZ	00 C
ATOM	2181	CE1	TYR	H	94	-101.599	114.835	268.696	1	67.57	AZ	00 C
ATOM	2182	CZ	TYR	H	94	-101.394	113.815	269.607	1	68.63	AZ	00 C
ATOM	2183	OH	TYR	H	94	-102.479	113.16	270.172	1	65.16	AZ	00 O
ATOM	2184	CE2	TYR	H	94	-100.092	113.466	269.967	1	69.15	AZ	00 C
ATOM	2185	CD2	TYR	H	94	-99.005	114.14	269.419	1	61.77	AZ	00 C
ATOM	2186	C	TYR	H	94	-96.403	117.862	268.509	1	52.71	AZ	00 C
ATOM	2187	O	TYR	H	94	-96.189	118.35	267.383	1	49.86	AZ	00 O
ATOM	2188	N	PHE	H	95	-95.533	117.901	269.519	1	47.32	AZ	00 N
ATOM	2189	CA	PHE	H	95	-94.239	118.567	269.422	1	46.58	AZ	00 C
ATOM	2190	CB	PHE	H	95	-93.937	119.323	270.701	1	47.39	AZ	00 C
ATOM	2191	CG	PHE	H	95	-94.642	120.613	270.822	1	44.9	AZ	00 C
ATOM	2192	CD1	PHE	H	95	-94.146	121.74	270.181	1	45.84	AZ	00 C
ATOM	2193	CE1	PHE	H	95	-94.804	122.957	270.287	1	50.8	AZ	00 C
ATOM	2194	CZ	PHE	H	95	-95.971	123.05	271.052	1	52.89	AZ	00 C
ATOM	2195	CE2	PHE	H	95	-96.462	121.924	271.712	1	52.04	AZ	00 C
ATOM	2196	CD2	PHE	H	95	-95.786	120.715	271.604	1	47.82	AZ	00 C
ATOM	2197	C	PHE	H	95	-93.167	117.518	269.278	1	45.49	AZ	00 C
ATOM	2198	O	PHE	H	95	-93.271	116.476	269.918	1	45.55	AZ	00 O
ATOM	2199	N	CYS	H	96	-92.142	117.804	268.477	1	43.59	AZ	00 N
ATOM	2200	CA	CYS	H	96	-90.93	117.012	268.465	1	48.84	AZ	00 C
ATOM	2201	CB	CYS	H	96	-90.525	116.625	267.049	1	53.08	AZ	00 C
ATOM	2202	SG	CYS	H	96	-90.063	117.984	265.982	1	57.47	AZ	00 S
ATOM	2203	C	CYS	H	96	-89.842	117.837	269.123	1	48.13	AZ	00 C

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ATOM	2204	O	CYS	H	96	-89.987	119.057	269.199	1	47.41	AZ	00 O
ATOM	2205	N	ALA	H	97	-88.781	117.179	269.614	1	44.81	AZ	00 N
ATOM	2206	CA	ALA	H	97	-87.661	117.878	270.247	1	43.53	AZ	00 C
ATOM	2207	CB	ALA	H	97	-88.044	118.261	271.654	1	44.06	AZ	00 C
ATOM	2208	C	ALA	H	97	-86.325	117.117	270.256	1	42.83	AZ	00 C
ATOM	2209	O	ALA	H	97	-86.294	115.909	270.257	1	42.76	AZ	00 O
ATOM	2210	N	ARG	H	98	-85.224	117.854	270.276	1	41.35	AZ	00 N
ATOM	2211	CA	ARG	H	98	-83.899	117.26	270.269	1	45.04	AZ	00 C
ATOM	2212	CB	ARG	H	98	-82.857	118.243	269.726	1	48.54	AZ	00 C
ATOM	2213	CG	ARG	H	98	-81.453	117.653	269.688	1	52.7	AZ	00 C
ATOM	2214	CD	ARG	H	98	-80.507	118.389	268.743	1	59.16	AZ	00 C
ATOM	2215	NE	ARG	H	98	-79.657	119.386	269.404	1	63.15	AZ	00 N
ATOM	2216	CZ	ARG	H	98	-78.671	120.049	268.806	1	67.85	AZ	00 C
ATOM	2217	NH1	ARG	H	98	-77.96	120.936	269.491	1	72.21	AZ	00 N
ATOM	2218	NH2	ARG	H	98	-78.383	119.824	267.528	1	73.26	AZ	00 N
ATOM	2219	C	ARG	H	98	-83.45	116.734	271.646	1	45.38	AZ	00 C
ATOM	2220	O	ARG	H	98	-83.226	117.47	272.605	1	43.18	AZ	00 O
ATOM	2221	N	ARG	H	99	-83.255	115.44	271.686	1	45.19	AZ	00 N
ATOM	2222	CA	ARG	H	99	-82.713	114.757	272.836	1	48.39	AZ	00 C
ATOM	2223	CB	ARG	H	99	-83.019	113.274	272.656	1	48.06	AZ	00 C
ATOM	2224	CG	ARG	H	99	-82.66	112.421	273.823	1	48.27	AZ	00 C
ATOM	2225	CD	ARG	H	99	-83.068	111.01	273.545	1	47.63	AZ	00 C
ATOM	2226	NE	ARG	H	99	-81.923	110.176	273.808	1	47.99	AZ	00 N
ATOM	2227	CZ	ARG	H	99	-81.721	109.46	274.893	1	49.74	AZ	00 C
ATOM	2228	NH1	ARG	H	99	-80.617	108.759	274.961	1	51.84	AZ	00 N
ATOM	2229	NH2	ARG	H	99	-82.6	109.416	275.896	1	60.15	AZ	00 N
ATOM	2230	C	ARG	H	99	-81.199	114.984	272.927	1	47.32	AZ	00 C
ATOM	2231	O	ARG	H	99	-80.428	114.268	272.29	1	52.47	AZ	00 O
ATOM	2232	N	TYR	H	100	-80.784	115.929	273.758	1	45.04	AZ	00 N
ATOM	2233	CA	TYR	H	100	-79.47	116.57	273.636	1	48.37	AZ	00 C
ATOM	2234	CB	TYR	H	100	-79.748	118.094	273.597	1	49.05	AZ	00 C
ATOM	2235	CG	TYR	H	100	-78.521	118.971	273.385	1	48.25	AZ	00 C
ATOM	2236	CD1	TYR	H	100	-77.584	118.674	272.378	1	48.81	AZ	00 C
ATOM	2237	CE1	TYR	H	100	-76.471	119.467	272.166	1	46.77	AZ	00 C
ATOM	2238	CZ	TYR	H	100	-76.274	120.581	272.944	1	49.2	AZ	00 C
ATOM	2239	OH	TYR	H	100	-75.158	121.365	272.737	1	50.16	AZ	00 O
ATOM	2240	CE2	TYR	H	100	-77.186	120.899	273.946	1	53.55	AZ	00 C
ATOM	2241	CD2	TYR	H	100	-78.305	120.097	274.162	1	48.7	AZ	00 C
ATOM	2242	C	TYR	H	100	-78.379	116.334	274.709	1	47.98	AZ	00 C
ATOM	2243	O	TYR	H	100	-78.054	117.267	275.445	1	51.94	AZ	00 O
ATOM	2244	N	GLY	H	101	-77.802	115.155	274.885	1	44.32	AZ	00 N
ATOM	2245	CA	GLY	H	101	-78.293	113.9	274.498	1	44.59	AZ	00 C
ATOM	2246	C	GLY	H	101	-79.14	113.261	275.578	1	41.34	AZ	00 C
ATOM	2247	O	GLY	H	101	-80.324	113.548	275.654	1	48.34	AZ	00 O
ATOM	2248	N	PRO	H	102	-78.559	112.378	276.399	1	37.55	AZ	00 N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	2249	CA	PRO	H	102	-79.396	111.314	276.989	1	38.69	AZ	00 C
ATOM	2250	CB	PRO	H	102	-78.387	110.367	277.657	1	37.22	AZ	00 C
ATOM	2251	CG	PRO	H	102	-77.13	111.119	277.726	1	39.04	AZ	00 C
ATOM	2252	CD	PRO	H	102	-77.138	112.117	276.594	1	38.29	AZ	00 C
ATOM	2253	C	PRO	H	102	-80.483	111.69	277.978	1	40.85	AZ	00 C
ATOM	2254	O	PRO	H	102	-81.449	110.937	278.111	1	46.14	AZ	00 O
ATOM	2255	N	GLU	H	103	-80.332	112.818	278.667	1	41.4	AZ	00 N
ATOM	2256	CA	GLU	H	103	-81.229	113.183	279.766	1	40.72	AZ	00 C
ATOM	2257	CB	GLU	H	103	-80.586	112.869	281.151	1	43.12	AZ	00 C
ATOM	2258	CG	GLU	H	103	-79.361	111.92	281.15	1	53.54	AZ	00 C
ATOM	2259	CD	GLU	H	103	-79.627	110.534	281.735	1	61	AZ	00 C
ATOM	2260	OE1	GLU	H	103	-80.054	110.491	282.913	1	74.19	AZ	00 O
ATOM	2261	OE2	GLU	H	103	-79.385	109.494	281.059	1	55.77	AZ	00 O
ATOM	2262	C	GLU	H	103	-81.648	114.661	279.633	1	37.84	AZ	00 C
ATOM	2263	O	GLU	H	103	-82.004	115.313	280.612	1	32.11	AZ	00 O
ATOM	2264	N	ASP	H	104	-81.636	115.172	278.412	1	38.32	AZ	00 N
ATOM	2265	CA	ASP	H	104	-81.702	116.618	278.187	1	44.5	AZ	00 C
ATOM	2266	CB	ASP	H	104	-80.288	117.21	278.184	1	49.02	AZ	00 C
ATOM	2267	CG	ASP	H	104	-79.771	117.447	279.584	1	53.75	AZ	00 C
ATOM	2268	OD1	ASP	H	104	-80.09	118.505	280.19	1	53.64	AZ	00 O
ATOM	2269	OD2	ASP	H	104	-79.06	116.54	280.078	1	60.12	AZ	00 O
ATOM	2270	C	ASP	H	104	-82.373	116.941	276.884	1	41.81	AZ	00 C
ATOM	2271	O	ASP	H	104	-82.39	116.11	275.989	1	40.45	AZ	00 O
ATOM	2272	N	ILE	H	105	-82.882	118.161	276.773	1	41.82	AZ	00 N
ATOM	2273	CA	ILE	H	105	-83.745	118.527	275.666	1	44.22	AZ	00 C
ATOM	2274	CB	ILE	H	105	-85.168	118.034	275.998	1	47.17	AZ	00 C
ATOM	2275	CG1	ILE	H	105	-86.235	118.648	275.108	1	51.9	AZ	00 C
ATOM	2276	CD1	ILE	H	105	-87.523	117.834	275.133	1	52.39	AZ	00 C
ATOM	2277	CG2	ILE	H	105	-85.515	118.294	277.45	1	51.19	AZ	00 C
ATOM	2278	C	ILE	H	105	-83.621	120.02	275.353	1	45.11	AZ	00 C
ATOM	2279	O	ILE	H	105	-83.992	120.834	276.167	1	49.18	AZ	00 O
ATOM	2280	N	ASP	H	106	-83.057	120.387	274.198	1	48.74	AZ	00 N
ATOM	2281	CA	ASP	H	106	-82.805	121.829	273.883	1	51.27	AZ	00 C
ATOM	2282	CB	ASP	H	106	-81.352	122.106	273.438	1	48.97	AZ	00 C
ATOM	2283	CG	ASP	H	106	-80.892	121.256	272.268	1	51.92	AZ	00 C
ATOM	2284	OD1	ASP	H	106	-81.639	120.358	271.842	1	51.05	AZ	00 O
ATOM	2285	OD2	ASP	H	106	-79.77	121.491	271.749	1	58.65	AZ	00 O
ATOM	2286	C	ASP	H	106	-83.85	122.483	272.932	1	57.09	AZ	00 C
ATOM	2287	O	ASP	H	106	-84.661	123.313	273.378	1	66.39	AZ	00 O
ATOM	2288	N	TYR	H	107	-83.851	122.09	271.66	1	56.1	AZ	00 N
ATOM	2289	CA	TYR	H	107	-84.672	122.719	270.642	1	57.98	AZ	00 C
ATOM	2290	CB	TYR	H	107	-83.934	122.803	269.29	1	58.83	AZ	00 C
ATOM	2291	CG	TYR	H	107	-82.738	123.739	269.299	1	58.08	AZ	00 C
ATOM	2292	CD1	TYR	H	107	-82.878	125.098	269.033	1	56.7	AZ	00 C
ATOM	2293	CE1	TYR	H	107	-81.783	125.95	269.063	1	61.69	AZ	00 C

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ATOM	2294	CZ	TYR	H	107	-80.516	125.437	269.369	1	66.07	AZ	00 C
ATOM	2295	OH	TYR	H	107	-79.385	126.241	269.407	1	60.13	AZ	00 O
ATOM	2296	CE2	TYR	H	107	-80.373	124.092	269.637	1	64.1	AZ	00 C
ATOM	2297	CD2	TYR	H	107	-81.478	123.259	269.601	1	60.68	AZ	00 C
ATOM	2298	C	TYR	H	107	-85.95	121.929	270.486	1	61.32	AZ	00 C
ATOM	2299	O	TYR	H	107	-85.928	120.7	270.399	1	59.59	AZ	00 O
ATOM	2300	N	TRP	H	108	-87.065	122.651	270.452	1	64.01	AZ	00 N
ATOM	2301	CA	TRP	H	108	-88.363	122.069	270.169	1	59.4	AZ	00 C
ATOM	2302	CB	TRP	H	108	-89.402	122.611	271.131	1	56.56	AZ	00 C
ATOM	2303	CG	TRP	H	108	-89.238	122.139	272.485	1	56.33	AZ	00 C
ATOM	2304	CD1	TRP	H	108	-88.176	122.335	273.274	1	55.01	AZ	00 C
ATOM	2305	NE1	TRP	H	108	-88.379	121.746	274.483	1	57.19	AZ	00 N
ATOM	2306	CE2	TRP	H	108	-89.608	121.148	274.497	1	55.45	AZ	00 C
ATOM	2307	CD2	TRP	H	108	-90.181	121.374	273.249	1	59	AZ	00 C
ATOM	2308	CE3	TRP	H	108	-91.458	120.858	272.993	1	59.15	AZ	00 C
ATOM	2309	CZ3	TRP	H	108	-92.112	120.145	274.003	1	58.33	AZ	00 C
ATOM	2310	CH2	TRP	H	108	-91.509	119.937	275.24	1	54.41	AZ	00 C
ATOM	2311	CZ2	TRP	H	108	-90.26	120.429	275.506	1	55.97	AZ	00 C
ATOM	2312	C	TRP	H	108	-88.771	122.431	268.746	1	62.27	AZ	00 C
ATOM	2313	O	TRP	H	108	-88.589	123.568	268.298	1	60.04	AZ	00 O
ATOM	2314	N	GLY	H	109	-89.345	121.462	268.044	1	61.31	AZ	00 N
ATOM	2315	CA	GLY	H	109	-89.977	121.723	266.775	1	59.08	AZ	00 C
ATOM	2316	C	GLY	H	109	-91.049	122.785	266.894	1	59.57	AZ	00 C
ATOM	2317	O	GLY	H	109	-91.504	123.109	267.98	1	57.87	AZ	00 O
ATOM	2318	N	GLN	H	110	-91.46	123.287	265.74	1	68.04	AZ	00 N
ATOM	2319	CA	GLN	H	110	-92.341	124.449	265.599	1	70.87	AZ	00 C
ATOM	2320	CB	GLN	H	110	-92.406	124.847	264.107	1	81.37	AZ	00 C
ATOM	2321	CG	GLN	H	110	-92.88	126.279	263.845	1	89.25	AZ	00 C
ATOM	2322	CD	GLN	H	110	-91.876	127.16	263.077	1	84.97	AZ	00 C
ATOM	2323	OE1	GLN	H	110	-91.718	128.351	263.385	1	82.15	AZ	00 O
ATOM	2324	NE2	GLN	H	110	-91.203	126.584	262.084	1	80.18	AZ	00 N
ATOM	2325	C	GLN	H	110	-93.755	124.233	266.11	1	64.72	AZ	00 C
ATOM	2326	O	GLN	H	110	-94.472	125.197	266.286	1	54.89	AZ	00 O
ATOM	2327	N	GLY	H	111	-94.146	122.972	266.319	1	68.77	AZ	00 N
ATOM	2328	CA	GLY	H	111	-95.523	122.587	266.66	1	76.46	AZ	00 C
ATOM	2329	C	GLY	H	111	-96.261	121.997	265.458	1	78.11	AZ	00 C
ATOM	2330	O	GLY	H	111	-96.076	122.484	264.332	1	84.61	AZ	00 O
ATOM	2331	N	THR	H	112	-97.067	120.945	265.706	1	76.15	AZ	00 N
ATOM	2332	CA	THR	H	112	-98.036	120.363	264.742	1	72.82	AZ	00 C
ATOM	2333	CB	THR	H	112	-97.549	119.006	264.175	1	75	AZ	00 C
ATOM	2334	OG1	THR	H	112	-96.414	119.195	263.325	1	83.39	AZ	00 O
ATOM	2335	CG2	THR	H	112	-98.644	118.316	263.349	1	79.21	AZ	00 C
ATOM	2336	C	THR	H	112	-99.382	120.08	265.42	1	72.51	AZ	00 C
ATOM	2337	O	THR	H	112	-99.443	119.227	266.297	1	73.32	AZ	00 O
ATOM	2338	N	THR	H	113	-100.458	120.754	264.998	1	79.87	AZ	00 N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	2339	CA	THR	H	113	-101.81	120.543	265.59	1	83.7	AZ	00 C
ATOM	2340	CB	THR	H	113	-102.656	121.832	265.596	1	85.99	AZ	00 C
ATOM	2341	OG1	THR	H	113	-102.88	122.26	264.246	1	100.51	AZ	00 O
ATOM	2342	CG2	THR	H	113	-101.955	122.953	266.357	1	88.32	AZ	00 C
ATOM	2343	C	THR	H	113	-102.612	119.459	264.856	1	81.92	AZ	00 C
ATOM	2344	O	THR	H	113	-102.468	119.28	263.646	1	85.28	AZ	00 O
ATOM	2345	N	LEU	H	114	-103.459	118.755	265.603	1	79.24	AZ	00 N
ATOM	2346	CA	LEU	H	114	-104.27	117.656	265.076	1	79.04	AZ	00 C
ATOM	2347	CB	LEU	H	114	-103.641	116.285	265.381	1	82.73	AZ	00 C
ATOM	2348	CG	LEU	H	114	-104.406	115.007	264.958	1	79.29	AZ	00 C
ATOM	2349	CD1	LEU	H	114	-104.322	114.818	263.451	1	74.49	AZ	00 C
ATOM	2350	CD2	LEU	H	114	-103.911	113.759	265.683	1	80.21	AZ	00 C
ATOM	2351	C	LEU	H	114	-105.629	117.692	265.729	1	85.54	AZ	00 C
ATOM	2352	O	LEU	H	114	-105.734	117.613	266.96	1	91.41	AZ	00 O
ATOM	2353	N	THR	H	115	-106.667	117.731	264.897	1	91.83	AZ	00 N
ATOM	2354	CA	THR	H	115	-108.036	117.788	265.379	1	87.85	AZ	00 C
ATOM	2355	CB	THR	H	115	-108.7	119.157	265.07	1	80.61	AZ	00 C
ATOM	2356	OG1	THR	H	115	-110.104	118.976	264.834	1	72.17	AZ	00 O
ATOM	2357	CG2	THR	H	115	-107.99	119.92	263.895	1	72.56	AZ	00 C
ATOM	2358	C	THR	H	115	-108.815	116.553	264.911	1	92.35	AZ	00 C
ATOM	2359	O	THR	H	115	-108.857	116.243	263.714	1	95.8	AZ	00 O
ATOM	2360	N	VAL	H	116	-109.369	115.836	265.894	1	102.37	AZ	00 N
ATOM	2361	CA	VAL	H	116	-110.126	114.592	265.694	1	110.57	AZ	00 C
ATOM	2362	CB	VAL	H	116	-109.665	113.473	266.677	1	111.33	AZ	00 C
ATOM	2363	CG1	VAL	H	116	-110.501	112.204	266.501	1	105.33	AZ	00 C
ATOM	2364	CG2	VAL	H	116	-108.182	113.178	266.49	1	112.25	AZ	00 C
ATOM	2365	C	VAL	H	116	-111.62	114.868	265.898	1	114.47	AZ	00 C
ATOM	2366	O	VAL	H	116	-112.139	114.75	267.02	1	111.47	AZ	00 O
ATOM	2367	N	SER	H	117	-112.296	115.245	264.809	1	116.98	AZ	00 N
ATOM	2368	CA	SER	H	117	-113.749	115.505	264.825	1	114.3	AZ	00 C
ATOM	2369	CB	SER	H	117	-114.036	116.943	265.296	1	104.98	AZ	00 C
ATOM	2370	OG	SER	H	117	-115.355	117.097	265.798	1	79.01	AZ	00 O
ATOM	2371	C	SER	H	117	-114.374	115.246	263.44	1	119.38	AZ	00 C
ATOM	2372	O	SER	H	117	-113.762	115.538	262.39	1	104.68	AZ	00 O
ATOM	2373	N	SER	H	118	-115.6	114.715	263.465	1	119.31	AZ	00 N
ATOM	2374	CA	SER	H	118	-116.311	114.266	262.259	1	121.12	AZ	00 C
ATOM	2375	CB	SER	H	118	-117.619	113.558	262.644	1	123.13	AZ	00 C
ATOM	2376	OG	SER	H	118	-118.557	114.466	263.201	1	121.26	AZ	00 O
ATOM	2377	C	SER	H	118	-116.617	115.388	261.262	1	113.32	AZ	00 C
ATOM	2378	O	SER	H	118	-116.162	115.33	260.118	1	102.29	AZ	00 O
ATOM	2379	N	ALA	H	119	-117.361	116.4	261.719	1	114.79	AZ	00 N
ATOM	2380	CA	ALA	H	119	-117.925	117.463	260.855	1	124.55	AZ	00 C
ATOM	2381	CB	ALA	H	119	-118.547	118.566	261.703	1	126.74	AZ	00 C
ATOM	2382	C	ALA	H	119	-116.939	118.064	259.833	1	125.7	AZ	00 C
ATOM	2383	O	ALA	H	119	-115.748	118.2	260.108	1	113.67	AZ	00 O

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ATOM	2384	N	SER	H	120	-117.471	118.428	258.663	1	133.38	AZ	00 N
ATOM	2385	CA	SER	H	120	-116.669	118.757	257.468	1	122.35	AZ	00 C
ATOM	2386	CB	SER	H	120	-117.586	118.794	256.226	1	116.15	AZ	00 C
ATOM	2387	OG	SER	H	120	-116.874	119.046	255.024	1	108.85	AZ	00 O
ATOM	2388	C	SER	H	120	-115.923	120.085	257.599	1	110.07	AZ	00 C
ATOM	2389	O	SER	H	120	-116.114	120.824	258.563	1	97.67	AZ	00 O
ATOM	2390	N	THR	H	121	-115.082	120.373	256.608	1	101.99	AZ	00 N
ATOM	2391	CA	THR	H	121	-114.435	121.679	256.454	1	105.18	AZ	00 C
ATOM	2392	CB	THR	H	121	-113.474	121.661	255.227	1	113.09	AZ	00 C
ATOM	2393	OG1	THR	H	121	-112.981	120.332	255.023	1	115.87	AZ	00 O
ATOM	2394	CG2	THR	H	121	-112.267	122.608	255.386	1	115.09	AZ	00 C
ATOM	2395	C	THR	H	121	-115.513	122.774	256.283	1	106.27	AZ	00 C
ATOM	2396	O	THR	H	121	-116.717	122.512	256.421	1	91.88	AZ	00 O
ATOM	2397	N	LYS	H	122	-115.08	124.009	256.039	1	116.28	AZ	00 N
ATOM	2398	CA	LYS	H	122	-115.981	125.082	255.623	1	116.94	AZ	00 C
ATOM	2399	CB	LYS	H	122	-116.699	125.685	256.842	1	105.39	AZ	00 C
ATOM	2400	C	LYS	H	122	-115.239	126.187	254.879	1	125.95	AZ	00 C
ATOM	2401	O	LYS	H	122	-114.009	126.148	254.721	1	117	AZ	00 O
ATOM	2402	N	GLY	H	123	-116.028	127.142	254.391	1	139.78	AZ	00 N
ATOM	2403	CA	GLY	H	123	-115.553	128.467	254.02	1	144.96	AZ	00 C
ATOM	2404	C	GLY	H	123	-115.968	129.403	255.149	1	152.03	AZ	00 C
ATOM	2405	O	GLY	H	123	-117.077	129.277	255.675	1	156	AZ	00 O
ATOM	2406	N	PRO	H	124	-115.081	130.326	255.556	1	154.54	AZ	00 N
ATOM	2407	CA	PRO	H	124	-115.441	131.332	256.565	1	149.78	AZ	00 C
ATOM	2408	CB	PRO	H	124	-114.081	131.766	257.107	1	151.72	AZ	00 C
ATOM	2409	CG	PRO	H	124	-113.144	131.574	255.965	1	151.58	AZ	00 C
ATOM	2410	CD	PRO	H	124	-113.658	130.41	255.174	1	149.03	AZ	00 C
ATOM	2411	C	PRO	H	124	-116.177	132.533	255.959	1	149.77	AZ	00 C
ATOM	2412	O	PRO	H	124	-115.775	133.012	254.895	1	149.28	AZ	00 O
ATOM	2413	N	SER	H	125	-117.234	133.013	256.625	1	150.2	AZ	00 N
ATOM	2414	CA	SER	H	125	-117.981	134.213	256.169	1	148.03	AZ	00 C
ATOM	2415	CB	SER	H	125	-119.471	134.154	256.561	1	142.89	AZ	00 C
ATOM	2416	OG	SER	H	125	-120.209	133.33	255.676	1	136.17	AZ	00 O
ATOM	2417	C	SER	H	125	-117.352	135.504	256.717	1	138.88	AZ	00 C
ATOM	2418	O	SER	H	125	-117.324	135.712	257.933	1	128.52	AZ	00 O
ATOM	2419	N	VAL	H	126	-116.867	136.36	255.812	1	133.75	AZ	00 N
ATOM	2420	CA	VAL	H	126	-116.21	137.632	256.158	1	126.35	AZ	00 C
ATOM	2421	CB	VAL	H	126	-114.954	137.887	255.275	1	116.21	AZ	00 C
ATOM	2422	CG1	VAL	H	126	-114.13	139.042	255.83	1	113.31	AZ	00 C
ATOM	2423	CG2	VAL	H	126	-114.1	136.631	255.152	1	112.23	AZ	00 C
ATOM	2424	C	VAL	H	126	-117.197	138.8	255.977	1	127.57	AZ	00 C
ATOM	2425	O	VAL	H	126	-117.593	139.111	254.85	1	139.29	AZ	00 O
ATOM	2426	N	PHE	H	127	-117.591	139.434	257.082	1	122.27	AZ	00 N
ATOM	2427	CA	PHE	H	127	-118.451	140.621	257.053	1	120.43	AZ	00 C
ATOM	2428	CB	PHE	H	127	-119.733	140.366	257.83	1	116.85	AZ	00 C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	2429	C	PHE	H	127	-117.699	141.81	257.648	1	120.48	AZ	00 C
ATOM	2430	O	PHE	H	127	-117.767	142.043	258.854	1	114.21	AZ	00 O
ATOM	2431	N	PRO	H	128	-116.965	142.559	256.804	1	127.04	AZ	00 N
ATOM	2432	CA	PRO	H	128	-116.12	143.662	257.26	1	126.1	AZ	00 C
ATOM	2433	CB	PRO	H	128	-115.872	144.45	255.973	1	134.16	AZ	00 C
ATOM	2434	CG	PRO	H	128	-115.841	143.403	254.913	1	134.28	AZ	00 C
ATOM	2435	CD	PRO	H	128	-116.76	142.297	255.362	1	130.88	AZ	00 C
ATOM	2436	C	PRO	H	128	-116.72	144.58	258.325	1	118.17	AZ	00 C
ATOM	2437	O	PRO	H	128	-117.929	144.825	258.331	1	103.74	AZ	00 O
ATOM	2438	N	LEU	H	129	-115.842	145.058	259.207	1	126.96	AZ	00 N
ATOM	2439	CA	LEU	H	129	-116.146	146.048	260.249	1	134.51	AZ	00 C
ATOM	2440	CB	LEU	H	129	-115.39	145.687	261.532	1	141.01	AZ	00 C
ATOM	2441	CG	LEU	H	129	-115.788	144.405	262.266	1	142.46	AZ	00 C
ATOM	2442	CD1	LEU	H	129	-114.586	143.787	262.966	1	142.11	AZ	00 C
ATOM	2443	CD2	LEU	H	129	-116.911	144.682	263.257	1	138.53	AZ	00 C
ATOM	2444	C	LEU	H	129	-115.688	147.444	259.798	1	137.56	AZ	00 C
ATOM	2445	O	LEU	H	129	-114.768	147.549	258.977	1	131.81	AZ	00 O
ATOM	2446	N	ALA	H	130	-116.314	148.499	260.341	1	140.11	AZ	00 N
ATOM	2447	CA	ALA	H	130	-115.938	149.904	260.047	1	133.37	AZ	00 C
ATOM	2448	CB	ALA	H	130	-116.628	150.382	258.778	1	134.39	AZ	00 C
ATOM	2449	C	ALA	H	130	-116.236	150.877	261.19	1	119.68	AZ	00 C
ATOM	2450	O	ALA	H	130	-115.871	152.057	261.115	1	110.5	AZ	00 O
ATOM	2451	N	GLY	H	138	-111.926	161.134	270.617	1	107.21	AZ	00 N
ATOM	2452	CA	GLY	H	138	-110.529	160.933	270.241	1	115.17	AZ	00 C
ATOM	2453	C	GLY	H	138	-110.253	161.045	268.747	1	126.32	AZ	00 C
ATOM	2454	O	GLY	H	138	-111.184	161.119	267.931	1	125.14	AZ	00 O
ATOM	2455	N	GLY	H	139	-108.962	161.084	268.404	1	129.04	AZ	00 N
ATOM	2456	CA	GLY	H	139	-108.481	161	267.02	1	128.86	AZ	00 C
ATOM	2457	C	GLY	H	139	-107.993	159.584	266.774	1	132.96	AZ	00 C
ATOM	2458	O	GLY	H	139	-106.825	159.367	266.435	1	135.33	AZ	00 O
ATOM	2459	N	THR	H	140	-108.919	158.631	266.929	1	132.66	AZ	00 N
ATOM	2460	CA	THR	H	140	-108.627	157.186	266.992	1	120.46	AZ	00 C
ATOM	2461	CB	THR	H	140	-108.322	156.754	268.445	1	117.67	AZ	00 C
ATOM	2462	OG1	THR	H	140	-108.804	157.761	269.357	1	109.87	AZ	00 O
ATOM	2463	CG2	THR	H	140	-106.817	156.545	268.638	1	110.38	AZ	00 C
ATOM	2464	C	THR	H	140	-109.795	156.341	266.443	1	105.81	AZ	00 C
ATOM	2465	O	THR	H	140	-110.961	156.581	266.783	1	97.75	AZ	00 O
ATOM	2466	N	ALA	H	141	-109.473	155.346	265.617	1	95.76	AZ	00 N
ATOM	2467	CA	ALA	H	141	-110.494	154.593	264.88	1	95.5	AZ	00 C
ATOM	2468	CB	ALA	H	141	-110.669	155.189	263.489	1	95.02	AZ	00 C
ATOM	2469	C	ALA	H	141	-110.2	153.086	264.774	1	95.07	AZ	00 C
ATOM	2470	O	ALA	H	141	-109.157	152.68	264.256	1	97.56	AZ	00 O
ATOM	2471	N	ALA	H	142	-111.142	152.274	265.255	1	88.57	AZ	00 N
ATOM	2472	CA	ALA	H	142	-111.095	150.828	265.118	1	86.06	AZ	00 C
ATOM	2473	CB	ALA	H	142	-111.772	150.175	266.31	1	88.09	AZ	00 C

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ATOM	2474	C	ALA	H	142	-111.797	150.41	263.833	1	94.53	AZ	00 C
ATOM	2475	O	ALA	H	142	-112.948	150.791	263.599	1	92.31	AZ	00 O
ATOM	2476	N	LEU	H	143	-111.104	149.627	263.01	1	105.68	AZ	00 N
ATOM	2477	CA	LEU	H	143	-111.685	149.016	261.817	1	115.72	AZ	00 C
ATOM	2478	CB	LEU	H	143	-110.863	149.411	260.59	1	126.43	AZ	00 C
ATOM	2479	CG	LEU	H	143	-110.771	150.922	260.312	1	140.78	AZ	00 C
ATOM	2480	CD1	LEU	H	143	-109.855	151.19	259.12	1	144.1	AZ	00 C
ATOM	2481	CD2	LEU	H	143	-112.145	151.551	260.079	1	143.85	AZ	00 C
ATOM	2482	C	LEU	H	143	-111.763	147.497	262.063	1	125.9	AZ	00 C
ATOM	2483	O	LEU	H	143	-112.08	147.105	263.192	1	119.58	AZ	00 O
ATOM	2484	N	GLY	H	144	-111.526	146.649	261.047	1	134.16	AZ	00 N
ATOM	2485	CA	GLY	H	144	-111.541	145.185	261.234	1	128.63	AZ	00 C
ATOM	2486	C	GLY	H	144	-111.962	144.317	260.052	1	124.92	AZ	00 C
ATOM	2487	O	GLY	H	144	-112.272	144.811	258.965	1	129.51	AZ	00 O
ATOM	2488	N	CYS	H	145	-111.923	143.004	260.289	1	125.12	AZ	00 N
ATOM	2489	CA	CYS	H	145	-112.425	141.963	259.379	1	120.83	AZ	00 C
ATOM	2490	CB	CYS	H	145	-111.312	141.398	258.484	1	118.29	AZ	00 C
ATOM	2491	SG	CYS	H	145	-111.045	142.249	256.919	1	128.28	AZ	00 S
ATOM	2492	C	CYS	H	145	-112.981	140.837	260.241	1	119.4	AZ	00 C
ATOM	2493	O	CYS	H	145	-112.262	139.899	260.589	1	108.16	AZ	00 O
ATOM	2494	N	LEU	H	146	-114.251	140.955	260.615	1	128.68	AZ	00 N
ATOM	2495	CA	LEU	H	146	-114.938	139.903	261.373	1	129.41	AZ	00 C
ATOM	2496	CB	LEU	H	146	-116.345	140.355	261.762	1	128.39	AZ	00 C
ATOM	2497	CG	LEU	H	146	-117.31	139.334	262.368	1	134	AZ	00 C
ATOM	2498	CD1	LEU	H	146	-116.841	138.82	263.72	1	139.25	AZ	00 C
ATOM	2499	CD2	LEU	H	146	-118.672	139.982	262.511	1	139.37	AZ	00 C
ATOM	2500	C	LEU	H	146	-115.012	138.624	260.542	1	123.61	AZ	00 C
ATOM	2501	O	LEU	H	146	-115.064	138.693	259.31	1	125.77	AZ	00 O
ATOM	2502	N	VAL	H	147	-114.984	137.47	261.217	1	107.37	AZ	00 N
ATOM	2503	CA	VAL	H	147	-115.053	136.163	260.551	1	100.57	AZ	00 C
ATOM	2504	CB	VAL	H	147	-113.638	135.556	260.414	1	88.4	AZ	00 C
ATOM	2505	CG1	VAL	H	147	-113.693	134.219	259.689	1	85.85	AZ	00 C
ATOM	2506	CG2	VAL	H	147	-112.718	136.527	259.676	1	85.97	AZ	00 C
ATOM	2507	C	VAL	H	147	-116.04	135.197	261.262	1	98.89	AZ	00 C
ATOM	2508	O	VAL	H	147	-115.892	134.905	262.464	1	85.97	AZ	00 O
ATOM	2509	N	LYS	H	148	-117.038	134.7	260.511	1	93.54	AZ	00 N
ATOM	2510	CA	LYS	H	148	-118.126	133.888	261.089	1	89.37	AZ	00 C
ATOM	2511	CB	LYS	H	148	-119.414	134.698	261.192	1	82.92	AZ	00 C
ATOM	2512	CG	LYS	H	148	-120.396	134.145	262.216	1	80.71	AZ	00 C
ATOM	2513	CD	LYS	H	148	-121.329	135.213	262.751	1	81.31	AZ	00 C
ATOM	2514	CE	LYS	H	148	-122.146	135.882	261.651	1	89.91	AZ	00 C
ATOM	2515	NZ	LYS	H	148	-122.843	134.949	260.706	1	94.07	AZ	00 N
ATOM	2516	C	LYS	H	148	-118.424	132.599	260.342	1	95.17	AZ	00 C
ATOM	2517	O	LYS	H	148	-118.265	132.521	259.122	1	105.02	AZ	00 O
ATOM	2518	N	ASP	H	149	-118.854	131.596	261.113	1	95.72	AZ	00 N

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ATOM	2519	CA	ASP	H	149	-119.239	130.281	260.617	1	94.53	AZ	00 C
ATOM	2520	CB	ASP	H	149	-120.594	130.39	259.909	1	94.79	AZ	00 C
ATOM	2521	CG	ASP	H	149	-121.724	130.837	260.873	1	94.07	AZ	00 C
ATOM	2522	OD1	ASP	H	149	-121.817	130.288	262.003	1	84.02	AZ	00 O
ATOM	2523	OD2	ASP	H	149	-122.52	131.739	260.509	1	87.15	AZ	00 O
ATOM	2524	C	ASP	H	149	-118.138	129.621	259.765	1	104.07	AZ	00 C
ATOM	2525	O	ASP	H	149	-118.098	129.762	258.54	1	96.94	AZ	00 O
ATOM	2526	N	TYR	H	150	-117.219	128.935	260.451	1	123.31	AZ	00 N
ATOM	2527	CA	TYR	H	150	-116.06	128.302	259.801	1	133.43	AZ	00 C
ATOM	2528	CB	TYR	H	150	-114.953	129.336	259.53	1	137.59	AZ	00 C
ATOM	2529	CG	TYR	H	150	-114.147	129.766	260.745	1	147.91	AZ	00 C
ATOM	2530	CD1	TYR	H	150	-112.994	129.074	261.135	1	153.93	AZ	00 C
ATOM	2531	CE1	TYR	H	150	-112.255	129.473	262.245	1	149.53	AZ	00 C
ATOM	2532	CZ	TYR	H	150	-112.654	130.591	262.969	1	146.7	AZ	00 C
ATOM	2533	OH	TYR	H	150	-111.946	131.002	264.072	1	131.4	AZ	00 O
ATOM	2534	CE2	TYR	H	150	-113.789	131.289	262.602	1	147.42	AZ	00 C
ATOM	2535	CD2	TYR	H	150	-114.523	130.883	261.493	1	148.7	AZ	00 C
ATOM	2536	C	TYR	H	150	-115.499	127.107	260.583	1	129.81	AZ	00 C
ATOM	2537	O	TYR	H	150	-115.873	126.856	261.741	1	125.03	AZ	00 O
ATOM	2538	N	PHE	H	151	-114.604	126.385	259.906	1	120.72	AZ	00 N
ATOM	2539	CA	PHE	H	151	-113.975	125.154	260.404	1	118.39	AZ	00 C
ATOM	2540	CB	PHE	H	151	-114.987	123.998	260.37	1	116.45	AZ	00 C
ATOM	2541	CG	PHE	H	151	-114.743	122.901	261.386	1	116.83	AZ	00 C
ATOM	2542	CD1	PHE	H	151	-113.796	121.902	261.149	1	110.97	AZ	00 C
ATOM	2543	CE1	PHE	H	151	-113.588	120.876	262.069	1	106.87	AZ	00 C
ATOM	2544	CZ	PHE	H	151	-114.36	120.81	263.221	1	104.54	AZ	00 C
ATOM	2545	CE2	PHE	H	151	-115.329	121.781	263.462	1	110.85	AZ	00 C
ATOM	2546	CD2	PHE	H	151	-115.526	122.814	262.546	1	117.47	AZ	00 C
ATOM	2547	C	PHE	H	151	-112.814	124.877	259.438	1	116.36	AZ	00 C
ATOM	2548	O	PHE	H	151	-112.871	125.355	258.302	1	97.11	AZ	00 O
ATOM	2549	N	PRO	H	152	-111.736	124.199	259.857	1	134.66	AZ	00 N
ATOM	2550	CA	PRO	H	152	-111.381	123.904	261.248	1	135.34	AZ	00 C
ATOM	2551	CB	PRO	H	152	-110.503	122.656	261.089	1	136.42	AZ	00 C
ATOM	2552	CG	PRO	H	152	-109.83	122.843	259.748	1	132.44	AZ	00 C
ATOM	2553	CD	PRO	H	152	-110.617	123.863	258.958	1	132.4	AZ	00 C
ATOM	2554	C	PRO	H	152	-110.556	125.046	261.833	1	135.86	AZ	00 C
ATOM	2555	O	PRO	H	152	-110.515	126.132	261.255	1	159.74	AZ	00 O
ATOM	2556	N	GLU	H	153	-109.914	124.807	262.972	1	129.55	AZ	00 N
ATOM	2557	CA	GLU	H	153	-108.716	125.562	263.326	1	128.03	AZ	00 C
ATOM	2558	CB	GLU	H	153	-108.268	125.266	264.76	1	135.86	AZ	00 C
ATOM	2559	CG	GLU	H	153	-109.248	125.678	265.855	1	130.13	AZ	00 C
ATOM	2560	CD	GLU	H	153	-109.537	127.172	265.895	1	122.54	AZ	00 C
ATOM	2561	OE1	GLU	H	153	-108.727	127.977	265.383	1	121.47	AZ	00 O
ATOM	2562	OE2	GLU	H	153	-110.586	127.545	266.453	1	113.36	AZ	00 O
ATOM	2563	C	GLU	H	153	-107.659	125.067	262.336	1	125.5	AZ	00 C

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ATOM	2564	O	GLU	H	153	-107.573	123.856	262.114	1	126.81	AZ	00 O
ATOM	2565	N	PRO	H	154	-106.824	125.937	261.767	1	123.04	AZ	00 N
ATOM	2566	CA	PRO	H	154	-106.535	127.274	262.248	1	124.37	AZ	00 C
ATOM	2567	CB	PRO	H	154	-105.099	127.463	261.746	1	127.28	AZ	00 C
ATOM	2568	CG	PRO	H	154	-105.108	126.793	260.406	1	126.65	AZ	00 C
ATOM	2569	CD	PRO	H	154	-106.101	125.657	260.51	1	127.84	AZ	00 C
ATOM	2570	C	PRO	H	154	-107.413	128.363	261.643	1	130.75	AZ	00 C
ATOM	2571	O	PRO	H	154	-108.465	128.08	261.082	1	141.51	AZ	00 O
ATOM	2572	N	VAL	H	155	-106.975	129.608	261.813	1	131.92	AZ	00 N
ATOM	2573	CA	VAL	H	155	-107.396	130.744	260.988	1	126.8	AZ	00 C
ATOM	2574	CB	VAL	H	155	-108.647	131.47	261.564	1	132.88	AZ	00 C
ATOM	2575	CG1	VAL	H	155	-109.876	131.199	260.704	1	135.14	AZ	00 C
ATOM	2576	CG2	VAL	H	155	-108.912	131.079	263.02	1	135.91	AZ	00 C
ATOM	2577	C	VAL	H	155	-106.203	131.702	260.865	1	113.93	AZ	00 C
ATOM	2578	O	VAL	H	155	-105.246	131.59	261.626	1	111.95	AZ	00 O
ATOM	2579	N	THR	H	156	-106.245	132.605	259.89	1	103.64	AZ	00 N
ATOM	2580	CA	THR	H	156	-105.218	133.645	259.725	1	99.76	AZ	00 C
ATOM	2581	CB	THR	H	156	-104.308	133.367	258.495	1	101.22	AZ	00 C
ATOM	2582	OG1	THR	H	156	-103.422	132.285	258.787	1	104.12	AZ	00 O
ATOM	2583	CG2	THR	H	156	-103.453	134.59	258.071	1	97.83	AZ	00 C
ATOM	2584	C	THR	H	156	-105.896	134.997	259.554	1	106.71	AZ	00 C
ATOM	2585	O	THR	H	156	-107.044	135.082	259.119	1	112.29	AZ	00 O
ATOM	2586	N	VAL	H	157	-105.182	136.045	259.939	1	111.96	AZ	00 N
ATOM	2587	CA	VAL	H	157	-105.436	137.397	259.46	1	113.13	AZ	00 C
ATOM	2588	CB	VAL	H	157	-106.181	138.249	260.522	1	112.94	AZ	00 C
ATOM	2589	CG1	VAL	H	157	-106.242	139.726	260.135	1	110.08	AZ	00 C
ATOM	2590	CG2	VAL	H	157	-107.588	137.702	260.746	1	108.58	AZ	00 C
ATOM	2591	C	VAL	H	157	-104.073	137.997	259.112	1	117.19	AZ	00 C
ATOM	2592	O	VAL	H	157	-103.032	137.55	259.616	1	120.02	AZ	00 O
ATOM	2593	N	SER	H	158	-104.084	138.964	258.204	1	115.04	AZ	00 N
ATOM	2594	CA	SER	H	158	-102.967	139.894	258.025	1	108.87	AZ	00 C
ATOM	2595	CB	SER	H	158	-102.07	139.446	256.86	1	98.79	AZ	00 C
ATOM	2596	OG	SER	H	158	-101.395	140.523	256.239	1	95.54	AZ	00 O
ATOM	2597	C	SER	H	158	-103.624	141.249	257.806	1	111.79	AZ	00 C
ATOM	2598	O	SER	H	158	-104.857	141.327	257.804	1	108.27	AZ	00 O
ATOM	2599	N	TRP	H	159	-102.83	142.305	257.645	1	115.67	AZ	00 N
ATOM	2600	CA	TRP	H	159	-103.367	143.643	257.345	1	119.16	AZ	00 C
ATOM	2601	CB	TRP	H	159	-103.662	144.399	258.635	1	115.93	AZ	00 C
ATOM	2602	CG	TRP	H	159	-104.988	144.047	259.206	1	110.99	AZ	00 C
ATOM	2603	CD1	TRP	H	159	-105.257	143.079	260.131	1	110.7	AZ	00 C
ATOM	2604	NE1	TRP	H	159	-106.602	143.044	260.403	1	111.78	AZ	00 N
ATOM	2605	CE2	TRP	H	159	-107.229	143.998	259.646	1	109.66	AZ	00 C
ATOM	2606	CD2	TRP	H	159	-106.24	144.644	258.873	1	108.37	AZ	00 C
ATOM	2607	CE3	TRP	H	159	-106.624	145.67	258.002	1	104.13	AZ	00 C
ATOM	2608	CZ3	TRP	H	159	-107.962	146.015	257.933	1	102.46	AZ	00 C

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ATOM	2609	CH2	TRP	H	159	-108.923	145.356	258.716	1	104.18	AZ	00 C
ATOM	2610	CZ2	TRP	H	159	-108.575	144.346	259.576	1	105.67	AZ	00 C
ATOM	2611	C	TRP	H	159	-102.434	144.455	256.452	1	123.61	AZ	00 C
ATOM	2612	O	TRP	H	159	-101.318	144.8	256.854	1	122.28	AZ	00 O
ATOM	2613	N	ASN	H	160	-102.915	144.757	255.244	1	125.69	AZ	00 N
ATOM	2614	CA	ASN	H	160	-102.103	145.339	254.172	1	125.86	AZ	00 C
ATOM	2615	CB	ASN	H	160	-101.713	146.797	254.505	1	124.1	AZ	00 C
ATOM	2616	CG	ASN	H	160	-102.916	147.682	254.843	1	120.45	AZ	00 C
ATOM	2617	OD1	ASN	H	160	-104.062	147.228	254.874	1	114.31	AZ	00 O
ATOM	2618	ND2	ASN	H	160	-102.648	148.962	255.1	1	116.67	AZ	00 N
ATOM	2619	C	ASN	H	160	-100.863	144.487	253.789	1	131.08	AZ	00 C
ATOM	2620	O	ASN	H	160	-99.838	145.038	253.374	1	131.87	AZ	00 O
ATOM	2621	N	SER	H	161	-100.966	143.159	253.948	1	135.66	AZ	00 N
ATOM	2622	CA	SER	H	161	-100.004	142.175	253.403	1	141.41	AZ	00 C
ATOM	2623	CB	SER	H	161	-99.919	142.301	251.872	1	136.6	AZ	00 C
ATOM	2624	OG	SER	H	161	-101.203	142.449	251.302	1	128.72	AZ	00 O
ATOM	2625	C	SER	H	161	-98.593	142.233	254.019	1	145.92	AZ	00 C
ATOM	2626	O	SER	H	161	-97.592	142.321	253.299	1	149.02	AZ	00 O
ATOM	2627	N	GLY	H	162	-98.516	142.157	255.347	1	143.62	AZ	00 N
ATOM	2628	CA	GLY	H	162	-97.236	142.268	256.056	1	144.33	AZ	00 C
ATOM	2629	C	GLY	H	162	-96.671	143.68	255.999	1	141.86	AZ	00 C
ATOM	2630	O	GLY	H	162	-95.55	143.893	255.524	1	128.4	AZ	00 O
ATOM	2631	N	ALA	H	163	-97.472	144.637	256.474	1	135.85	AZ	00 N
ATOM	2632	CA	ALA	H	163	-97.111	146.064	256.502	1	126.12	AZ	00 C
ATOM	2633	CB	ALA	H	163	-97.595	146.763	255.238	1	126.9	AZ	00 C
ATOM	2634	C	ALA	H	163	-97.682	146.752	257.741	1	117.37	AZ	00 C
ATOM	2635	O	ALA	H	163	-96.933	147.356	258.518	1	102.55	AZ	00 O
ATOM	2636	N	LEU	H	164	-99.006	146.674	257.9	1	114.18	AZ	00 N
ATOM	2637	CA	LEU	H	164	-99.683	147.106	259.129	1	118.97	AZ	00 C
ATOM	2638	CB	LEU	H	164	-101.12	147.575	258.841	1	117.78	AZ	00 C
ATOM	2639	CG	LEU	H	164	-101.934	148.089	260.041	1	117.8	AZ	00 C
ATOM	2640	CD1	LEU	H	164	-101.354	149.37	260.64	1	113.79	AZ	00 C
ATOM	2641	CD2	LEU	H	164	-103.376	148.304	259.624	1	121.01	AZ	00 C
ATOM	2642	C	LEU	H	164	-99.682	145.983	260.185	1	117.64	AZ	00 C
ATOM	2643	O	LEU	H	164	-100.593	145.135	260.234	1	102.25	AZ	00 O
ATOM	2644	N	THR	H	165	-98.638	145.997	261.014	1	113.83	AZ	00 N
ATOM	2645	CA	THR	H	165	-98.547	145.172	262.212	1	113.42	AZ	00 C
ATOM	2646	CB	THR	H	165	-97.344	144.205	262.14	1	118.2	AZ	00 C
ATOM	2647	OG1	THR	H	165	-96.137	144.959	261.977	1	127.12	AZ	00 O
ATOM	2648	CG2	THR	H	165	-97.489	143.22	260.974	1	118.98	AZ	00 C
ATOM	2649	C	THR	H	165	-98.402	146.125	263.401	1	105.78	AZ	00 C
ATOM	2650	O	THR	H	165	-97.39	146.106	264.105	1	107.14	AZ	00 O
ATOM	2651	N	SER	H	166	-99.404	146.983	263.587	1	99.85	AZ	00 N
ATOM	2652	CA	SER	H	166	-99.433	147.948	264.703	1	97.1	AZ	00 C
ATOM	2653	CB	SER	H	166	-98.593	149.194	264.389	1	86.09	AZ	00 C

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ATOM	2654	OG	SER	H	166	-98.462	149.403	262.986	1	83.25	AZ	00 O
ATOM	2655	C	SER	H	166	-100.877	148.327	265.059	1	101.64	AZ	00 C
ATOM	2656	O	SER	H	166	-101.63	148.831	264.209	1	99.45	AZ	00 O
ATOM	2657	N	GLY	H	167	-101.243	148.07	266.319	1	98.92	AZ	00 N
ATOM	2658	CA	GLY	H	167	-102.625	148.173	266.792	1	95.61	AZ	00 C
ATOM	2659	C	GLY	H	167	-103.485	146.93	266.575	1	92.41	AZ	00 C
ATOM	2660	O	GLY	H	167	-104.644	146.9	267.012	1	83.83	AZ	00 O
ATOM	2661	N	VAL	H	168	-102.911	145.891	265.958	1	90.33	AZ	00 N
ATOM	2662	CA	VAL	H	168	-103.673	144.736	265.451	1	87.85	AZ	00 C
ATOM	2663	CB	VAL	H	168	-102.929	144.038	264.282	1	88.14	AZ	00 C
ATOM	2664	CG1	VAL	H	168	-103.797	142.932	263.688	1	91.54	AZ	00 C
ATOM	2665	CG2	VAL	H	168	-102.504	145.039	263.214	1	90.78	AZ	00 C
ATOM	2666	C	VAL	H	168	-103.91	143.671	266.528	1	84.73	AZ	00 C
ATOM	2667	O	VAL	H	168	-102.981	142.94	266.869	1	92.47	AZ	00 O
ATOM	2668	N	HIS	H	169	-105.137	143.573	267.046	1	79.78	AZ	00 N
ATOM	2669	CA	HIS	H	169	-105.53	142.473	267.952	1	76.84	AZ	00 C
ATOM	2670	CB	HIS	H	169	-106.271	143.003	269.176	1	75.71	AZ	00 C
ATOM	2671	CG	HIS	H	169	-105.47	143.945	270	1	79.32	AZ	00 C
ATOM	2672	ND1	HIS	H	169	-105.833	145.26	270.176	1	77.2	AZ	00 N
ATOM	2673	CE1	HIS	H	169	-104.945	145.859	270.947	1	81.38	AZ	00 C
ATOM	2674	NE2	HIS	H	169	-104.017	144.979	271.273	1	91.69	AZ	00 N
ATOM	2675	CD2	HIS	H	169	-104.323	143.77	270.695	1	84.8	AZ	00 C
ATOM	2676	C	HIS	H	169	-106.433	141.445	267.277	1	80.02	AZ	00 C
ATOM	2677	O	HIS	H	169	-107.666	141.531	267.398	1	89.54	AZ	00 O
ATOM	2678	N	THR	H	170	-105.835	140.478	266.58	1	73.19	AZ	00 N
ATOM	2679	CA	THR	H	170	-106.584	139.315	266.09	1	75.14	AZ	00 C
ATOM	2680	CB	THR	H	170	-105.781	138.508	265.058	1	77.82	AZ	00 C
ATOM	2681	OG1	THR	H	170	-105.443	139.349	263.952	1	80.55	AZ	00 O
ATOM	2682	CG2	THR	H	170	-106.581	137.302	264.571	1	78.42	AZ	00 C
ATOM	2683	C	THR	H	170	-106.943	138.39	267.259	1	76.13	AZ	00 C
ATOM	2684	O	THR	H	170	-106.068	137.731	267.809	1	82.92	AZ	00 O
ATOM	2685	N	PHE	H	171	-108.226	138.332	267.616	1	75.95	AZ	00 N
ATOM	2686	CA	PHE	H	171	-108.676	137.538	268.759	1	78.65	AZ	00 C
ATOM	2687	CB	PHE	H	171	-110.11	137.913	269.13	1	77.19	AZ	00 C
ATOM	2688	CG	PHE	H	171	-110.227	139.269	269.762	1	82.32	AZ	00 C
ATOM	2689	CD1	PHE	H	171	-110.072	139.408	271.124	1	84.94	AZ	00 C
ATOM	2690	CE1	PHE	H	171	-110.168	140.648	271.738	1	86.05	AZ	00 C
ATOM	2691	CZ	PHE	H	171	-110.43	141.781	270.996	1	86.17	AZ	00 C
ATOM	2692	CE2	PHE	H	171	-110.583	141.661	269.619	1	92.01	AZ	00 C
ATOM	2693	CD2	PHE	H	171	-110.475	140.413	269.007	1	87.36	AZ	00 C
ATOM	2694	C	PHE	H	171	-108.554	136.026	268.537	1	84.28	AZ	00 C
ATOM	2695	O	PHE	H	171	-108.354	135.57	267.412	1	82.57	AZ	00 O
ATOM	2696	N	PRO	H	172	-108.616	135.242	269.626	1	99.27	AZ	00 N
ATOM	2697	CA	PRO	H	172	-108.723	133.795	269.459	1	100.61	AZ	00 C
ATOM	2698	CB	PRO	H	172	-108.286	133.253	270.822	1	104.14	AZ	00 C

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ATOM	2699	CG	PRO	H	172	-108.662	134.326	271.786	1	105.38	AZ	00 C
ATOM	2700	CD	PRO	H	172	-108.448	135.618	271.047	1	106.08	AZ	00 C
ATOM	2701	C	PRO	H	172	-110.167	133.424	269.155	1	96.66	AZ	00 C
ATOM	2702	O	PRO	H	172	-111.084	134.182	269.5	1	93.99	AZ	00 O
ATOM	2703	N	ALA	H	173	-110.362	132.264	268.536	1	92.18	AZ	00 N
ATOM	2704	CA	ALA	H	173	-111.683	131.849	268.047	1	95.14	AZ	00 C
ATOM	2705	CB	ALA	H	173	-111.556	130.612	267.173	1	99.05	AZ	00 C
ATOM	2706	C	ALA	H	173	-112.695	131.6	269.165	1	93.26	AZ	00 C
ATOM	2707	O	ALA	H	173	-112.357	131.616	270.347	1	93.6	AZ	00 O
ATOM	2708	N	VAL	H	174	-113.947	131.406	268.779	1	90.37	AZ	00 N
ATOM	2709	CA	VAL	H	174	-115.001	131.108	269.731	1	99.98	AZ	00 C
ATOM	2710	CB	VAL	H	174	-115.829	132.355	270.105	1	104.84	AZ	00 C
ATOM	2711	CG1	VAL	H	174	-116.516	132.151	271.451	1	109.11	AZ	00 C
ATOM	2712	CG2	VAL	H	174	-114.953	133.598	270.173	1	109.92	AZ	00 C
ATOM	2713	C	VAL	H	174	-115.91	130.063	269.109	1	111.75	AZ	00 C
ATOM	2714	O	VAL	H	174	-116.464	130.285	268.037	1	127.17	AZ	00 O
ATOM	2715	N	LEU	H	175	-116.047	128.923	269.779	1	119.66	AZ	00 N
ATOM	2716	CA	LEU	H	175	-116.901	127.847	269.307	1	130.32	AZ	00 C
ATOM	2717	CB	LEU	H	175	-116.364	126.492	269.798	1	138.31	AZ	00 C
ATOM	2718	CG	LEU	H	175	-116.786	125.188	269.095	1	143.72	AZ	00 C
ATOM	2719	CD1	LEU	H	175	-118.28	124.929	269.259	1	147.39	AZ	00 C
ATOM	2720	CD2	LEU	H	175	-116.381	125.125	267.62	1	137.8	AZ	00 C
ATOM	2721	C	LEU	H	175	-118.33	128.114	269.798	1	128.13	AZ	00 C
ATOM	2722	O	LEU	H	175	-118.596	128.091	271.001	1	123.48	AZ	00 O
ATOM	2723	N	GLN	H	176	-119.243	128.332	268.853	1	127.48	AZ	00 N
ATOM	2724	CA	GLN	H	176	-120.604	128.814	269.159	1	125.58	AZ	00 C
ATOM	2725	CB	GLN	H	176	-121.156	129.78	268.063	1	123.46	AZ	00 C
ATOM	2726	CG	GLN	H	176	-120.412	129.813	266.717	1	124.81	AZ	00 C
ATOM	2727	CD	GLN	H	176	-120.879	130.892	265.73	1	128.08	AZ	00 C
ATOM	2728	OE1	GLN	H	176	-121.855	131.611	265.967	1	127.19	AZ	00 O
ATOM	2729	NE2	GLN	H	176	-120.164	131.005	264.604	1	115.11	AZ	00 N
ATOM	2730	C	GLN	H	176	-121.534	127.624	269.432	1	123.8	AZ	00 C
ATOM	2731	O	GLN	H	176	-121.112	126.466	269.327	1	117.92	AZ	00 O
ATOM	2732	N	SER	H	177	-122.782	127.91	269.818	1	120.31	AZ	00 N
ATOM	2733	CA	SER	H	177	-123.844	126.89	269.864	1	109.92	AZ	00 C
ATOM	2734	CB	SER	H	177	-125.23	127.533	270.016	1	107.22	AZ	00 C
ATOM	2735	OG	SER	H	177	-125.392	128.135	271.291	1	102.16	AZ	00 O
ATOM	2736	C	SER	H	177	-123.812	126.048	268.589	1	109.5	AZ	00 C
ATOM	2737	O	SER	H	177	-123.888	124.819	268.655	1	108.69	AZ	00 O
ATOM	2738	N	SER	H	178	-123.637	126.723	267.446	1	105.18	AZ	00 N
ATOM	2739	CA	SER	H	178	-123.574	126.084	266.117	1	105.48	AZ	00 C
ATOM	2740	CB	SER	H	178	-123.429	127.156	265.008	1	107.46	AZ	00 C
ATOM	2741	OG	SER	H	178	-122.091	127.592	264.835	1	100.19	AZ	00 O
ATOM	2742	C	SER	H	178	-122.513	124.977	265.896	1	102.45	AZ	00 C
ATOM	2743	O	SER	H	178	-122.563	124.288	264.871	1	95.05	AZ	00 O

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ATOM	2744	N	GLY	H	179	-121.556	124.814	266.814	1	103.49	AZ	00 N
ATOM	2745	CA	GLY	H	179	-120.48	123.841	266.626	1	109.24	AZ	00 C
ATOM	2746	C	GLY	H	179	-119.515	124.238	265.516	1	116.07	AZ	00 C
ATOM	2747	O	GLY	H	179	-118.836	123.383	264.942	1	121.01	AZ	00 O
ATOM	2748	N	LEU	H	180	-119.467	125.536	265.214	1	123.34	AZ	00 N
ATOM	2749	CA	LEU	H	180	-118.564	126.11	264.211	1	126.75	AZ	00 C
ATOM	2750	CB	LEU	H	180	-119.327	126.603	262.976	1	116.61	AZ	00 C
ATOM	2751	CG	LEU	H	180	-120.603	125.853	262.599	1	102.81	AZ	00 C
ATOM	2752	CD1	LEU	H	180	-121.434	126.707	261.662	1	99.75	AZ	00 C
ATOM	2753	CD2	LEU	H	180	-120.285	124.493	262.002	1	98.55	AZ	00 C
ATOM	2754	C	LEU	H	180	-117.89	127.288	264.896	1	131.86	AZ	00 C
ATOM	2755	O	LEU	H	180	-118.37	127.76	265.934	1	124.13	AZ	00 O
ATOM	2756	N	TYR	H	181	-116.792	127.765	264.321	1	134.18	AZ	00 N
ATOM	2757	CA	TYR	H	181	-116.011	128.828	264.95	1	140.7	AZ	00 C
ATOM	2758	CB	TYR	H	181	-114.519	128.601	264.733	1	142.41	AZ	00 C
ATOM	2759	CG	TYR	H	181	-113.919	127.506	265.583	1	145.24	AZ	00 C
ATOM	2760	CD1	TYR	H	181	-113.888	127.617	266.973	1	138.48	AZ	00 C
ATOM	2761	CE1	TYR	H	181	-113.325	126.626	267.756	1	139.27	AZ	00 C
ATOM	2762	CZ	TYR	H	181	-112.775	125.506	267.153	1	140	AZ	00 C
ATOM	2763	OH	TYR	H	181	-112.213	124.525	267.933	1	141.09	AZ	00 O
ATOM	2764	CE2	TYR	H	181	-112.789	125.371	265.777	1	141.16	AZ	00 C
ATOM	2765	CD2	TYR	H	181	-113.35	126.371	265	1	147.07	AZ	00 C
ATOM	2766	C	TYR	H	181	-116.394	130.208	264.432	1	147.71	AZ	00 C
ATOM	2767	O	TYR	H	181	-116.904	130.341	263.317	1	163.78	AZ	00 O
ATOM	2768	N	SER	H	182	-116.161	131.221	265.269	1	144	AZ	00 N
ATOM	2769	CA	SER	H	182	-116.236	132.634	264.869	1	136.39	AZ	00 C
ATOM	2770	CB	SER	H	182	-117.625	133.232	265.129	1	136.75	AZ	00 C
ATOM	2771	OG	SER	H	182	-118.064	132.994	266.454	1	139.67	AZ	00 O
ATOM	2772	C	SER	H	182	-115.15	133.44	265.593	1	123.63	AZ	00 C
ATOM	2773	O	SER	H	182	-115.024	133.385	266.819	1	106.16	AZ	00 O
ATOM	2774	N	LEU	H	183	-114.373	134.178	264.805	1	117.25	AZ	00 N
ATOM	2775	CA	LEU	H	183	-113.21	134.936	265.269	1	106.54	AZ	00 C
ATOM	2776	CB	LEU	H	183	-112.058	134.668	264.282	1	101.33	AZ	00 C
ATOM	2777	CG	LEU	H	183	-110.67	135.324	264.337	1	101.25	AZ	00 C
ATOM	2778	CD1	LEU	H	183	-109.573	134.337	263.953	1	93.13	AZ	00 C
ATOM	2779	CD2	LEU	H	183	-110.596	136.563	263.441	1	101.99	AZ	00 C
ATOM	2780	C	LEU	H	183	-113.604	136.422	265.346	1	102.94	AZ	00 C
ATOM	2781	O	LEU	H	183	-114.787	136.765	265.225	1	90.23	AZ	00 O
ATOM	2782	N	SER	H	184	-112.643	137.289	265.638	1	99.41	AZ	00 N
ATOM	2783	CA	SER	H	184	-112.766	138.718	265.352	1	97.46	AZ	00 C
ATOM	2784	CB	SER	H	184	-113.534	139.427	266.469	1	96.4	AZ	00 C
ATOM	2785	OG	SER	H	184	-114.893	139.032	266.502	1	101.55	AZ	00 O
ATOM	2786	C	SER	H	184	-111.369	139.303	265.258	1	94.47	AZ	00 C
ATOM	2787	O	SER	H	184	-110.528	138.966	266.088	1	98.47	AZ	00 O
ATOM	2788	N	SER	H	185	-111.105	140.142	264.255	1	86.41	AZ	00 N

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ATOM	2789	CA	SER	H	185	-109.851	140.918	264.204	1	82.59	AZ	00 C
ATOM	2790	CB	SER	H	185	-108.945	140.44	263.083	1	77.16	AZ	00 C
ATOM	2791	OG	SER	H	185	-107.868	141.351	262.915	1	81.35	AZ	00 O
ATOM	2792	C	SER	H	185	-110.109	142.417	264.051	1	86.93	AZ	00 C
ATOM	2793	O	SER	H	185	-111.067	142.819	263.404	1	107.65	AZ	00 O
ATOM	2794	N	VAL	H	186	-109.25	143.234	264.654	1	83.67	AZ	00 N
ATOM	2795	CA	VAL	H	186	-109.427	144.686	264.661	1	81.09	AZ	00 C
ATOM	2796	CB	VAL	H	186	-110.19	145.191	265.909	1	80.31	AZ	00 C
ATOM	2797	CG1	VAL	H	186	-111.58	144.562	265.995	1	78.94	AZ	00 C
ATOM	2798	CG2	VAL	H	186	-109.387	144.948	267.184	1	78.68	AZ	00 C
ATOM	2799	C	VAL	H	186	-108.086	145.362	264.645	1	82.06	AZ	00 C
ATOM	2800	O	VAL	H	186	-107.061	144.699	264.792	1	88.64	AZ	00 O
ATOM	2801	N	VAL	H	187	-108.105	146.681	264.46	1	82.33	AZ	00 N
ATOM	2802	CA	VAL	H	187	-106.891	147.496	264.538	1	86.08	AZ	00 C
ATOM	2803	CB	VAL	H	187	-105.983	147.309	263.278	1	83.88	AZ	00 C
ATOM	2804	CG1	VAL	H	187	-106.764	147.486	261.981	1	83.08	AZ	00 C
ATOM	2805	CG2	VAL	H	187	-104.775	148.237	263.324	1	84.68	AZ	00 C
ATOM	2806	C	VAL	H	187	-107.239	148.964	264.807	1	84.15	AZ	00 C
ATOM	2807	O	VAL	H	187	-108.143	149.505	264.178	1	82.95	AZ	00 O
ATOM	2808	N	THR	H	188	-106.549	149.58	265.772	1	92.83	AZ	00 N
ATOM	2809	CA	THR	H	188	-106.687	151.022	266.032	1	97.36	AZ	00 C
ATOM	2810	CB	THR	H	188	-106.419	151.422	267.503	1	93.95	AZ	00 C
ATOM	2811	OG1	THR	H	188	-107.15	150.57	268.385	1	96.37	AZ	00 O
ATOM	2812	CG2	THR	H	188	-106.863	152.863	267.767	1	97.63	AZ	00 C
ATOM	2813	C	THR	H	188	-105.717	151.786	265.137	1	103.36	AZ	00 C
ATOM	2814	O	THR	H	188	-104.585	151.341	264.9	1	102.57	AZ	00 O
ATOM	2815	N	VAL	H	189	-106.187	152.935	264.653	1	108.17	AZ	00 N
ATOM	2816	CA	VAL	H	189	-105.445	153.815	263.748	1	106.73	AZ	00 C
ATOM	2817	CB	VAL	H	189	-105.63	153.377	262.269	1	108.43	AZ	00 C
ATOM	2818	CG1	VAL	H	189	-104.757	152.167	261.943	1	108.09	AZ	00 C
ATOM	2819	CG2	VAL	H	189	-107.094	153.101	261.949	1	111.25	AZ	00 C
ATOM	2820	C	VAL	H	189	-105.935	155.256	263.96	1	110.26	AZ	00 C
ATOM	2821	O	VAL	H	189	-106.906	155.471	264.699	1	95.48	AZ	00 O
ATOM	2822	N	PRO	H	190	-105.263	156.249	263.334	1	121.29	AZ	00 N
ATOM	2823	CA	PRO	H	190	-105.759	157.623	263.447	1	118.18	AZ	00 C
ATOM	2824	CB	PRO	H	190	-104.587	158.459	262.916	1	120.71	AZ	00 C
ATOM	2825	CG	PRO	H	190	-103.885	157.544	261.976	1	124.81	AZ	00 C
ATOM	2826	CD	PRO	H	190	-103.937	156.224	262.686	1	125.58	AZ	00 C
ATOM	2827	C	PRO	H	190	-107.013	157.905	262.618	1	108.67	AZ	00 C
ATOM	2828	O	PRO	H	190	-107.218	157.304	261.557	1	103.67	AZ	00 O
ATOM	2829	N	SER	H	191	-107.83	158.822	263.132	1	103.99	AZ	00 N
ATOM	2830	CA	SER	H	191	-108.918	159.44	262.381	1	107.59	AZ	00 C
ATOM	2831	CB	SER	H	191	-109.811	160.255	263.319	1	111.24	AZ	00 C
ATOM	2832	OG	SER	H	191	-110.22	159.494	264.439	1	102.44	AZ	00 O
ATOM	2833	C	SER	H	191	-108.376	160.37	261.283	1	111.47	AZ	00 C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	2834	O	SER	H	191	-109.049	160.581	260.273	1	109.88	AZ	00 O
ATOM	2835	N	SER	H	192	-107.174	160.922	261.505	1	109.99	AZ	00 N
ATOM	2836	CA	SER	H	192	-106.437	161.753	260.533	1	105.68	AZ	00 C
ATOM	2837	CB	SER	H	192	-104.949	161.852	260.928	1	104.91	AZ	00 C
ATOM	2838	OG	SER	H	192	-104.758	162.48	262.186	1	100.8	AZ	00 O
ATOM	2839	C	SER	H	192	-106.533	161.266	259.081	1	114.8	AZ	00 C
ATOM	2840	O	SER	H	192	-107.021	161.996	258.206	1	120.78	AZ	00 O
ATOM	2841	N	SER	H	193	-106.066	160.037	258.842	1	115.95	AZ	00 N
ATOM	2842	CA	SER	H	193	-106.11	159.414	257.516	1	114.02	AZ	00 C
ATOM	2843	CB	SER	H	193	-104.712	158.914	257.125	1	110.7	AZ	00 C
ATOM	2844	OG	SER	H	193	-104.345	157.77	257.877	1	113.44	AZ	00 O
ATOM	2845	C	SER	H	193	-107.135	158.272	257.445	1	111.6	AZ	00 C
ATOM	2846	O	SER	H	193	-106.984	157.355	256.631	1	113.51	AZ	00 O
ATOM	2847	N	LEU	H	194	-108.179	158.335	258.276	1	109.62	AZ	00 N
ATOM	2848	CA	LEU	H	194	-109.258	157.341	258.244	1	117.59	AZ	00 C
ATOM	2849	CB	LEU	H	194	-110.006	157.291	259.581	1	106.95	AZ	00 C
ATOM	2850	C	LEU	H	194	-110.202	157.697	257.091	1	121.27	AZ	00 C
ATOM	2851	O	LEU	H	194	-111.271	158.27	257.304	1	126.53	AZ	00 O
ATOM	2852	N	GLY	H	195	-109.783	157.353	255.872	1	122.25	AZ	00 N
ATOM	2853	CA	GLY	H	195	-110.444	157.799	254.641	1	120.71	AZ	00 C
ATOM	2854	C	GLY	H	195	-109.465	157.826	253.481	1	124.69	AZ	00 C
ATOM	2855	O	GLY	H	195	-109.737	157.258	252.423	1	119.48	AZ	00 O
ATOM	2856	N	THR	H	196	-108.32	158.482	253.689	1	132.08	AZ	00 N
ATOM	2857	CA	THR	H	196	-107.231	158.539	252.692	1	137.5	AZ	00 C
ATOM	2858	CB	THR	H	196	-106.413	159.857	252.805	1	139.42	AZ	00 C
ATOM	2859	OG1	THR	H	196	-106.084	160.117	254.178	1	141.98	AZ	00 O
ATOM	2860	CG2	THR	H	196	-107.192	161.048	252.227	1	128.88	AZ	00 C
ATOM	2861	C	THR	H	196	-106.267	157.326	252.743	1	134.76	AZ	00 C
ATOM	2862	O	THR	H	196	-105.814	156.864	251.691	1	123.28	AZ	00 O
ATOM	2863	N	GLN	H	197	-105.949	156.829	253.948	1	133.23	AZ	00 N
ATOM	2864	CA	GLN	H	197	-105.094	155.628	254.116	1	123.29	AZ	00 C
ATOM	2865	CB	GLN	H	197	-104.516	155.551	255.537	1	109.85	AZ	00 C
ATOM	2866	C	GLN	H	197	-105.88	154.349	253.798	1	120.2	AZ	00 C
ATOM	2867	O	GLN	H	197	-107.074	154.266	254.104	1	113.63	AZ	00 O
ATOM	2868	N	THR	H	198	-105.207	153.368	253.182	1	121.24	AZ	00 N
ATOM	2869	CA	THR	H	198	-105.852	152.122	252.715	1	122.51	AZ	00 C
ATOM	2870	CB	THR	H	198	-105.144	151.537	251.469	1	121.67	AZ	00 C
ATOM	2871	OG1	THR	H	198	-105.238	152.461	250.379	1	118.97	AZ	00 O
ATOM	2872	CG2	THR	H	198	-105.778	150.209	251.035	1	123.22	AZ	00 C
ATOM	2873	C	THR	H	198	-105.868	151.056	253.813	1	126.38	AZ	00 C
ATOM	2874	O	THR	H	198	-104.838	150.796	254.442	1	132.49	AZ	00 O
ATOM	2875	N	TYR	H	199	-107.03	150.424	254.001	1	120.67	AZ	00 N
ATOM	2876	CA	TYR	H	199	-107.254	149.455	255.075	1	113.11	AZ	00 C
ATOM	2877	CB	TYR	H	199	-108.1	150.104	256.175	1	106.76	AZ	00 C
ATOM	2878	C	TYR	H	199	-107.956	148.199	254.545	1	117.19	AZ	00 C

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ATOM	2879	O	TYR	H	199	-109.177	148.212	254.335	1	111.74	AZ	00 O
ATOM	2880	N	ILE	H	200	-107.181	147.13	254.318	1	120.87	AZ	00 N
ATOM	2881	CA	ILE	H	200	-107.707	145.819	253.867	1	126.51	AZ	00 C
ATOM	2882	CB	ILE	H	200	-107.618	145.657	252.314	1	129.69	AZ	00 C
ATOM	2883	CG1	ILE	H	200	-108.435	146.764	251.622	1	134.42	AZ	00 C
ATOM	2884	CD1	ILE	H	200	-108.784	146.531	250.162	1	133.17	AZ	00 C
ATOM	2885	CG2	ILE	H	200	-108.071	144.269	251.841	1	121.84	AZ	00 C
ATOM	2886	C	ILE	H	200	-106.949	144.677	254.563	1	126.94	AZ	00 C
ATOM	2887	O	ILE	H	200	-105.711	144.657	254.58	1	122.3	AZ	00 O
ATOM	2888	N	CYS	H	201	-107.698	143.722	255.116	1	125.6	AZ	00 N
ATOM	2889	CA	CYS	H	201	-107.111	142.508	255.693	1	127.19	AZ	00 C
ATOM	2890	CB	CYS	H	201	-108.053	141.882	256.721	1	127.35	AZ	00 C
ATOM	2891	SG	CYS	H	201	-109.56	141.163	256.03	1	128.55	AZ	00 S
ATOM	2892	C	CYS	H	201	-106.775	141.466	254.622	1	119.7	AZ	00 C
ATOM	2893	O	CYS	H	201	-107.502	141.32	253.637	1	111.13	AZ	00 O
ATOM	2894	N	ASN	H	202	-105.687	140.733	254.846	1	114.36	AZ	00 N
ATOM	2895	CA	ASN	H	202	-105.234	139.679	253.95	1	117.03	AZ	00 C
ATOM	2896	CB	ASN	H	202	-103.784	139.927	253.537	1	120.17	AZ	00 C
ATOM	2897	CG	ASN	H	202	-103.639	141.129	252.63	1	125.81	AZ	00 C
ATOM	2898	OD1	ASN	H	202	-103.267	140.995	251.463	1	114.74	AZ	00 O
ATOM	2899	ND2	ASN	H	202	-103.95	142.314	253.153	1	130.7	AZ	00 N
ATOM	2900	C	ASN	H	202	-105.393	138.314	254.608	1	120.01	AZ	00 C
ATOM	2901	O	ASN	H	202	-104.412	137.706	255.04	1	124.39	AZ	00 O
ATOM	2902	N	VAL	H	203	-106.644	137.847	254.673	1	127.23	AZ	00 N
ATOM	2903	CA	VAL	H	203	-106.996	136.534	255.26	1	125.91	AZ	00 C
ATOM	2904	CB	VAL	H	203	-108.538	136.382	255.448	1	116.97	AZ	00 C
ATOM	2905	CG1	VAL	H	203	-108.945	134.968	255.865	1	116.4	AZ	00 C
ATOM	2906	CG2	VAL	H	203	-109.048	137.389	256.47	1	118.71	AZ	00 C
ATOM	2907	C	VAL	H	203	-106.412	135.388	254.411	1	128.47	AZ	00 C
ATOM	2908	O	VAL	H	203	-106.242	135.523	253.184	1	122.57	AZ	00 O
ATOM	2909	N	ASN	H	204	-106.083	134.278	255.076	1	118.71	AZ	00 N
ATOM	2910	CA	ASN	H	204	-105.414	133.163	254.42	1	120.15	AZ	00 C
ATOM	2911	CB	ASN	H	204	-103.895	133.431	254.459	1	127.38	AZ	00 C
ATOM	2912	CG	ASN	H	204	-103.136	132.789	253.305	1	129.88	AZ	00 C
ATOM	2913	OD1	ASN	H	204	-103.687	132.024	252.506	1	140.47	AZ	00 O
ATOM	2914	ND2	ASN	H	204	-101.848	133.108	253.215	1	122.08	AZ	00 N
ATOM	2915	C	ASN	H	204	-105.771	131.795	255.035	1	110.52	AZ	00 C
ATOM	2916	O	ASN	H	204	-104.898	130.967	255.273	1	105.5	AZ	00 O
ATOM	2917	N	HIS	H	205	-107.062	131.562	255.268	1	109.26	AZ	00 N
ATOM	2918	CA	HIS	H	205	-107.558	130.277	255.797	1	116.63	AZ	00 C
ATOM	2919	CB	HIS	H	205	-109.078	130.374	256.032	1	113.34	AZ	00 C
ATOM	2920	CG	HIS	H	205	-109.733	129.113	256.519	1	112.4	AZ	00 C
ATOM	2921	ND1	HIS	H	205	-110	128.04	255.694	1	114.95	AZ	00 N
ATOM	2922	CE1	HIS	H	205	-110.622	127.099	256.382	1	114.54	AZ	00 C
ATOM	2923	NE2	HIS	H	205	-110.783	127.527	257.621	1	116.32	AZ	00 N

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ATOM	2924	CD2	HIS	H	205	-110.249	128.79	257.729	1	114.57	AZ	00 C
ATOM	2925	C	HIS	H	205	-107.183	129.133	254.831	1	119.61	AZ	00 C
ATOM	2926	O	HIS	H	205	-107.78	128.988	253.767	1	126.2	AZ	00 O
ATOM	2927	N	LYS	H	206	-106.193	128.328	255.223	1	123.38	AZ	00 N
ATOM	2928	CA	LYS	H	206	-105.539	127.365	254.317	1	119.41	AZ	00 C
ATOM	2929	CB	LYS	H	206	-104.179	126.93	254.887	1	115.27	AZ	00 C
ATOM	2930	CG	LYS	H	206	-103.241	126.308	253.855	1	109.02	AZ	00 C
ATOM	2931	CD	LYS	H	206	-102.262	125.324	254.487	1	102.13	AZ	00 C
ATOM	2932	CE	LYS	H	206	-101.101	125.021	253.546	1	96.5	AZ	00 C
ATOM	2933	NZ	LYS	H	206	-100.16	126.173	253.404	1	89.27	AZ	00 N
ATOM	2934	C	LYS	H	206	-106.331	126.104	253.937	1	118.18	AZ	00 C
ATOM	2935	O	LYS	H	206	-106.351	125.748	252.752	1	119.11	AZ	00 O
ATOM	2936	N	PRO	H	207	-106.949	125.409	254.924	1	115.58	AZ	00 N
ATOM	2937	CA	PRO	H	207	-107.428	124.036	254.645	1	117.47	AZ	00 C
ATOM	2938	CB	PRO	H	207	-107.935	123.543	256.008	1	118.17	AZ	00 C
ATOM	2939	CG	PRO	H	207	-108.211	124.765	256.801	1	112.64	AZ	00 C
ATOM	2940	CD	PRO	H	207	-107.343	125.869	256.272	1	112.35	AZ	00 C
ATOM	2941	C	PRO	H	207	-108.518	123.93	253.565	1	118.1	AZ	00 C
ATOM	2942	O	PRO	H	207	-108.573	122.919	252.866	1	101.61	AZ	00 O
ATOM	2943	N	SER	H	208	-109.355	124.968	253.443	1	128.6	AZ	00 N
ATOM	2944	CA	SER	H	208	-110.285	125.136	252.315	1	122.13	AZ	00 C
ATOM	2945	CB	SER	H	208	-111.685	125.518	252.831	1	125.73	AZ	00 C
ATOM	2946	OG	SER	H	208	-111.755	126.864	253.29	1	119.54	AZ	00 O
ATOM	2947	C	SER	H	208	-109.782	126.189	251.314	1	112.85	AZ	00 C
ATOM	2948	O	SER	H	208	-110.56	127.009	250.84	1	101.17	AZ	00 O
ATOM	2949	N	ASN	H	209	-108.476	126.178	251.032	1	121.14	AZ	00 N
ATOM	2950	CA	ASN	H	209	-107.823	127.041	250.021	1	125.52	AZ	00 C
ATOM	2951	CB	ASN	H	209	-108.05	126.443	248.621	1	124.37	AZ	00 C
ATOM	2952	CG	ASN	H	209	-107.582	124.995	248.506	1	126.66	AZ	00 C
ATOM	2953	OD1	ASN	H	209	-106.704	124.538	249.246	1	128.27	AZ	00 O
ATOM	2954	ND2	ASN	H	209	-108.163	124.27	247.557	1	123.16	AZ	00 N
ATOM	2955	C	ASN	H	209	-108.172	128.553	249.995	1	130.1	AZ	00 C
ATOM	2956	O	ASN	H	209	-107.769	129.258	249.06	1	133.08	AZ	00 O
ATOM	2957	N	THR	H	210	-108.859	129.051	251.031	1	126.65	AZ	00 N
ATOM	2958	CA	THR	H	210	-109.494	130.376	251.013	1	116.48	AZ	00 C
ATOM	2959	CB	THR	H	210	-110.528	130.517	252.154	1	111.11	AZ	00 C
ATOM	2960	OG1	THR	H	210	-111.352	129.345	252.225	1	99.33	AZ	00 O
ATOM	2961	CG2	THR	H	210	-111.408	131.747	251.95	1	115.59	AZ	00 C
ATOM	2962	C	THR	H	210	-108.444	131.477	251.167	1	122.63	AZ	00 C
ATOM	2963	O	THR	H	210	-107.596	131.396	252.056	1	141.31	AZ	00 O
ATOM	2964	N	LYS	H	211	-108.512	132.499	250.312	1	121.72	AZ	00 N
ATOM	2965	CA	LYS	H	211	-107.509	133.574	250.272	1	123.16	AZ	00 C
ATOM	2966	CB	LYS	H	211	-106.467	133.259	249.171	1	126.19	AZ	00 C
ATOM	2967	CG	LYS	H	211	-105.429	132.202	249.577	1	128.45	AZ	00 C
ATOM	2968	CD	LYS	H	211	-105.228	131.061	248.569	1	127.55	AZ	00 C

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ATOM	2969	CE	LYS	H	211	-103.984	131.208	247.694	1	128.22	AZ	00 C
ATOM	2970	NZ	LYS	H	211	-104.191	132.059	246.489	1	126.4	AZ	00 N
ATOM	2971	C	LYS	H	211	-108.168	134.959	250.079	1	119.03	AZ	00 C
ATOM	2972	O	LYS	H	211	-107.587	135.851	249.449	1	118.45	AZ	00 O
ATOM	2973	N	VAL	H	212	-109.358	135.143	250.668	1	115.7	AZ	00 N
ATOM	2974	CA	VAL	H	212	-110.191	136.344	250.428	1	117.28	AZ	00 C
ATOM	2975	CB	VAL	H	212	-111.702	136.081	250.748	1	107.9	AZ	00 C
ATOM	2976	CG1	VAL	H	212	-112.037	136.226	252.233	1	100.99	AZ	00 C
ATOM	2977	CG2	VAL	H	212	-112.6	136.998	249.926	1	108.3	AZ	00 C
ATOM	2978	C	VAL	H	212	-109.689	137.596	251.173	1	121.53	AZ	00 C
ATOM	2979	O	VAL	H	212	-109.432	137.55	252.369	1	137.84	AZ	00 O
ATOM	2980	N	ASP	H	213	-109.535	138.703	250.45	1	125.74	AZ	00 N
ATOM	2981	CA	ASP	H	213	-109.29	140.021	251.055	1	122.83	AZ	00 C
ATOM	2982	CB	ASP	H	213	-108.305	140.831	250.199	1	114.25	AZ	00 C
ATOM	2983	CG	ASP	H	213	-106.991	140.081	249.931	1	107.11	AZ	00 C
ATOM	2984	OD1	ASP	H	213	-106.971	138.829	249.924	1	89.87	AZ	00 O
ATOM	2985	OD2	ASP	H	213	-105.963	140.754	249.721	1	110.61	AZ	00 O
ATOM	2986	C	ASP	H	213	-110.654	140.707	251.148	1	123.61	AZ	00 C
ATOM	2987	O	ASP	H	213	-111.616	140.195	250.59	1	133.93	AZ	00 O
ATOM	2988	N	LYS	H	214	-110.763	141.828	251.857	1	118.5	AZ	00 N
ATOM	2989	CA	LYS	H	214	-112.058	142.521	251.982	1	125.98	AZ	00 C
ATOM	2990	CB	LYS	H	214	-112.97	141.775	252.976	1	127.27	AZ	00 C
ATOM	2991	CG	LYS	H	214	-114.4	141.532	252.489	1	132.35	AZ	00 C
ATOM	2992	CD	LYS	H	214	-114.455	140.444	251.42	1	132.58	AZ	00 C
ATOM	2993	CE	LYS	H	214	-115.86	139.975	251.081	1	124.7	AZ	00 C
ATOM	2994	NZ	LYS	H	214	-115.814	138.658	250.386	1	115.61	AZ	00 N
ATOM	2995	C	LYS	H	214	-111.869	143.98	252.415	1	135.23	AZ	00 C
ATOM	2996	O	LYS	H	214	-111.181	144.246	253.402	1	149.3	AZ	00 O
ATOM	2997	N	LYS	H	215	-112.49	144.915	251.688	1	139.64	AZ	00 N
ATOM	2998	CA	LYS	H	215	-112.233	146.355	251.876	1	137.44	AZ	00 C
ATOM	2999	CB	LYS	H	215	-112.526	147.154	250.591	1	139.15	AZ	00 C
ATOM	3000	CG	LYS	H	215	-113.969	147.613	250.386	1	140.81	AZ	00 C
ATOM	3001	CD	LYS	H	215	-114.141	148.342	249.058	1	138.44	AZ	00 C
ATOM	3002	CE	LYS	H	215	-113.611	149.772	249.103	1	131.97	AZ	00 C
ATOM	3003	NZ	LYS	H	215	-113.086	150.215	247.783	1	128.31	AZ	00 N
ATOM	3004	C	LYS	H	215	-112.976	146.942	253.072	1	135.71	AZ	00 C
ATOM	3005	O	LYS	H	215	-113.92	146.336	253.587	1	134.1	AZ	00 O
ATOM	3006	N	VAL	H	216	-112.538	148.129	253.498	1	134.44	AZ	00 N
ATOM	3007	CA	VAL	H	216	-113.005	148.739	254.749	1	138.35	AZ	00 C
ATOM	3008	CB	VAL	H	216	-111.988	148.506	255.895	1	141.7	AZ	00 C
ATOM	3009	CG1	VAL	H	216	-112.525	149.054	257.215	1	142.62	AZ	00 C
ATOM	3010	CG2	VAL	H	216	-111.642	147.022	256.033	1	140.9	AZ	00 C
ATOM	3011	C	VAL	H	216	-113.288	150.25	254.625	1	136.88	AZ	00 C
ATOM	3012	O	VAL	H	216	-112.384	151.043	254.346	1	126.88	AZ	00 O
ATOM	3013	N	GLU	H	217	-114.559	150.617	254.821	1	135.4	AZ	00 N

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ATOM	3014	CA	GLU	H	217	-115.014	152.015	254.987	1	132.52	AZ	00 C
ATOM	3015	CB	GLU	H	217	-114.857	152.85	253.691	1	129.71	AZ	00 C
ATOM	3016	CG	GLU	H	217	-114.864	152.107	252.345	1	127.73	AZ	00 C
ATOM	3017	CD	GLU	H	217	-116.103	151.253	252.09	1	125.36	AZ	00 C
ATOM	3018	OE1	GLU	H	217	-115.938	150.099	251.632	1	121.27	AZ	00 O
ATOM	3019	OE2	GLU	H	217	-117.239	151.724	252.324	1	114.07	AZ	00 O
ATOM	3020	C	GLU	H	217	-116.485	152.038	255.481	1	134.56	AZ	00 C
ATOM	3021	O	GLU	H	217	-117.23	151.092	255.195	1	126.25	AZ	00 O
ATOM	3022	N	PRO	H	218	-116.908	153.098	256.226	1	135.31	AZ	00 N
ATOM	3023	CA	PRO	H	218	-118.346	153.192	256.595	1	133.99	AZ	00 C
ATOM	3024	CB	PRO	H	218	-118.368	154.245	257.725	1	128.74	AZ	00 C
ATOM	3025	CG	PRO	H	218	-116.94	154.624	257.984	1	129.23	AZ	00 C
ATOM	3026	CD	PRO	H	218	-116.136	154.225	256.782	1	126.97	AZ	00 C
ATOM	3027	C	PRO	H	218	-119.229	153.607	255.391	1	135.01	AZ	00 C
ATOM	3028	O	PRO	H	218	-119.042	154.698	254.847	1	138.51	AZ	00 O
ATOM	3029	N	LYS	H	219	-120.191	152.756	255.008	1	137.7	AZ	00 N
ATOM	3030	CA	LYS	H	219	-120.823	152.782	253.655	1	135.25	AZ	00 C
ATOM	3031	CB	LYS	H	219	-121.476	151.42	253.352	1	127.28	AZ	00 C
ATOM	3032	C	LYS	H	219	-121.833	153.916	253.341	1	135.38	AZ	00 C
ATOM	3033	O	LYS	H	219	-123.032	153.668	253.169	1	121.34	AZ	00 O
ATOM	3034	N	SER	H	220	-121.317	155.144	253.244	1	139.28	AZ	00 N
ATOM	3035	CA	SER	H	220	-122.036	156.313	252.711	1	136.43	AZ	00 C
ATOM	3036	CB	SER	H	220	-122.286	156.128	251.201	1	129.94	AZ	00 C
ATOM	3037	OG	SER	H	220	-122.837	157.294	250.615	1	126.27	AZ	00 O
ATOM	3038	C	SER	H	220	-123.31	156.725	253.498	1	146.75	AZ	00 C
ATOM	3039	O	SER	H	220	-123.2	157.495	254.465	1	137.51	AZ	00 O
ATOM	3040	N	CYS	H	221	-124.486	156.215	253.097	1	155.58	AZ	00 N
ATOM	3041	CA	CYS	H	221	-125.789	156.568	253.701	1	153.74	AZ	00 C
ATOM	3042	CB	CYS	H	221	-125.785	156.235	255.201	1	160.31	AZ	00 C
ATOM	3043	SG	CYS	H	221	-127.343	155.663	255.934	1	170.61	AZ	00 S
ATOM	3044	C	CYS	H	221	-126.154	158.047	253.476	1	143.88	AZ	00 C
ATOM	3045	O	CYS	H	221	-126.615	158.441	252.401	1	128.23	AZ	00 O
TER	3046		CYS	H	221							
ATOM	3047	N	ASP	L	1	-94.083	106.128	287.931	1	61.18	L	N
ATOM	3048	CA	ASP	L	1	-93.818	107.51	287.426	1	61.1	L	C
ATOM	3049	CB	ASP	L	1	-95.024	108.037	286.67	1	64.82	L	C
ATOM	3050	CG	ASP	L	1	-95.315	107.241	285.433	1	69.72	L	C
ATOM	3051	OD1	ASP	L	1	-94.696	106.163	285.256	1	60.65	L	O
ATOM	3052	OD2	ASP	L	1	-96.172	107.702	284.645	1	80.2	L	O
ATOM	3053	C	ASP	L	1	-93.466	108.506	288.508	1	57.41	L	C
ATOM	3054	O	ASP	L	1	-94.04	108.485	289.571	1	58.08	L	O
ATOM	3055	N	ILE	L	2	-92.525	109.396	288.212	1	58.58	L	N
ATOM	3056	CA	ILE	L	2	-92.289	110.57	289.044	1	52.56	L	C
ATOM	3057	CB	ILE	L	2	-90.839	111.072	288.917	1	51.17		C
ATOM	3058	CG1	ILE	L	2	-89.877	109.93	289.304	1	56.44		C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3059	CD1	ILE	L	2	-88.391	110.232	289.133	1	59.93		C
ATOM	3060	CG2	ILE	L	2	-90.609	112.246	289.855	1	49.95		C
ATOM	3061	C	ILE	L	2	-93.356	111.636	288.679	1	51.1	L	C
ATOM	3062	O	ILE	L	2	-93.594	111.946	287.492	1	44.38	L	O
ATOM	3063	N	VAL	L	3	-94.016	112.146	289.72	1	49.5	L	N
ATOM	3064	CA	VAL	L	3	-95.074	113.168	289.615	1	46.19	L	C
ATOM	3065	CB	VAL	L	3	-96.255	112.875	290.591	1	42.61		C
ATOM	3066	CG1	VAL	L	3	-97.366	113.884	290.469	1	38.45		C
ATOM	3067	CG2	VAL	L	3	-96.837	111.505	290.312	1	45.99		C
ATOM	3068	C	VAL	L	3	-94.411	114.462	290.016	1	44.52	L	C
ATOM	3069	O	VAL	L	3	-93.704	114.488	291.03	1	41.63	L	O
ATOM	3070	N	LEU	L	4	-94.631	115.523	289.23	1	44.52	L	N
ATOM	3071	CA	LEU	L	4	-94.179	116.878	289.607	1	42.29	L	C
ATOM	3072	CB	LEU	L	4	-93.319	117.472	288.504	1	40.45		C
ATOM	3073	CG	LEU	L	4	-92.143	116.635	288.004	1	41.46		C
ATOM	3074	CD1	LEU	L	4	-91.364	117.379	286.937	1	43.29		C
ATOM	3075	CD2	LEU	L	4	-91.214	116.241	289.12	1	43.79		C
ATOM	3076	C	LEU	L	4	-95.373	117.797	289.932	1	41.64	L	C
ATOM	3077	O	LEU	L	4	-96.376	117.748	289.275	1	45.83	L	O
ATOM	3078	N	THR	L	5	-95.257	118.628	290.954	1	44.71	L	N
ATOM	3079	CA	THR	L	5	-96.344	119.5	291.391	1	47.99	L	C
ATOM	3080	CB	THR	L	5	-96.783	119.141	292.832	1	46.86	L	C
ATOM	3081	OG1	THR	L	5	-97.21	117.78	292.876	1	49.03	L	O
ATOM	3082	CG2	THR	L	5	-97.925	119.994	293.271	1	45.1	L	C
ATOM	3083	C	THR	L	5	-95.885	120.964	291.344	1	50.52	L	C
ATOM	3084	O	THR	L	5	-95.222	121.457	292.289	1	43.61	L	O
ATOM	3085	N	GLN	L	6	-96.257	121.659	290.258	1	48.39	L	N
ATOM	3086	CA	GLN	L	6	-95.973	123.101	290.15	1	44.02	L	C
ATOM	3087	CB	GLN	L	6	-96.135	123.626	288.735	1	41.63	L	C
ATOM	3088	CG	GLN	L	6	-94.934	123.337	287.891	1	42.73	L	C
ATOM	3089	CD	GLN	L	6	-94.941	124.058	286.581	1	40.43	L	C
ATOM	3090	OE1	GLN	L	6	-94.951	123.431	285.545	1	43.77	L	O
ATOM	3091	NE2	GLN	L	6	-94.886	125.379	286.618	1	42.36	L	N
ATOM	3092	C	GLN	L	6	-96.819	123.951	291.081	1	44.54	L	C
ATOM	3093	O	GLN	L	6	-97.919	123.554	291.444	1	44.3	L	O
ATOM	3094	N	SER	L	7	-96.272	125.121	291.426	1	45.93	L	N
ATOM	3095	CA	SER	L	7	-96.871	126.088	292.32	1	45.54	L	C
ATOM	3096	CB	SER	L	7	-96.543	125.736	293.741	1	43.25		C
ATOM	3097	OG	SER	L	7	-97.484	124.826	294.216	1	46.34		O
ATOM	3098	C	SER	L	7	-96.381	127.527	292.117	1	51.11	L	C
ATOM	3099	O	SER	L	7	-95.202	127.755	291.856	1	56.13	L	O
ATOM	3100	N	PRO	L	8	-97.274	128.503	292.229	1	49.89	L	N
ATOM	3101	CA	PRO	L	8	-98.702	128.297	292.173	1	52.35	L	C
ATOM	3102	CB	PRO	L	8	-99.241	129.668	292.515	1	52.21	L	C
ATOM	3103	CG	PRO	L	8	-98.259	130.572	291.88	1	51.27	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3104	CD	PRO	L	8	-96.927	129.916	292.051	1	51.31	L	C
ATOM	3105	C	PRO	L	8	-99.065	127.928	290.751	1	56.18	L	C
ATOM	3106	O	PRO	L	8	-98.199	128.009	289.856	1	62.18	L	O
ATOM	3107	N	VAL	L	9	-100.317	127.549	290.515	1	55.8	L	N
ATOM	3108	CA	VAL	L	9	-100.704	127.261	289.13	1	56.77	L	C
ATOM	3109	CB	VAL	L	9	-101.991	126.423	288.995	1	54.61		C
ATOM	3110	CG1	VAL	L	9	-101.867	125.167	289.831	1	52.98		C
ATOM	3111	CG2	VAL	L	9	-103.228	127.235	289.333	1	57.13		C
ATOM	3112	C	VAL	L	9	-100.81	128.528	288.289	1	53.88	L	C
ATOM	3113	O	VAL	L	9	-100.75	128.443	287.065	1	54.29	L	O
ATOM	3114	N	SER	L	10	-100.989	129.676	288.95	1	52.86	L	N
ATOM	3115	CA	SER	L	10	-101.083	130.998	288.293	1	51.6	L	C
ATOM	3116	CB	SER	L	10	-102.532	131.336	287.94	1	53.85		C
ATOM	3117	OG	SER	L	10	-103.276	131.569	289.14	1	61.09		O
ATOM	3118	C	SER	L	10	-100.569	132.053	289.251	1	47.16	L	C
ATOM	3119	O	SER	L	10	-100.677	131.905	290.46	1	47.49	L	O
ATOM	3120	N	LEU	L	11	-100.041	133.131	288.702	1	48.56	L	N
ATOM	3121	CA	LEU	L	11	-99.192	134.066	289.442	1	49.44	L	C
ATOM	3122	CB	LEU	L	11	-97.767	133.496	289.541	1	53.48	L	C
ATOM	3123	CG	LEU	L	11	-96.654	134.185	290.324	1	53.72	L	C
ATOM	3124	CD1	LEU	L	11	-97.029	134.382	291.787	1	56.22	L	C
ATOM	3125	CD2	LEU	L	11	-95.401	133.347	290.234	1	53.32	L	C
ATOM	3126	C	LEU	L	11	-99.147	135.343	288.634	1	51.26	L	C
ATOM	3127	O	LEU	L	11	-98.947	135.295	287.411	1	49.78	L	O
ATOM	3128	N	ALA	L	12	-99.356	136.468	289.305	1	50.98	L	N
ATOM	3129	CA	ALA	L	12	-99.347	137.768	288.661	1	47.54	L	C
ATOM	3130	CB	ALA	L	12	-100.72	138.399	288.739	1	48.01	L	C
ATOM	3131	C	ALA	L	12	-98.341	138.58	289.431	1	49.97	L	C
ATOM	3132	O	ALA	L	12	-98.417	138.606	290.658	1	47.95	L	O
ATOM	3133	N	VAL	L	13	-97.393	139.213	288.729	1	53.81	L	N
ATOM	3134	CA	VAL	L	13	-96.239	139.862	289.378	1	56.55	L	C
ATOM	3135	CB	VAL	L	13	-95.036	138.862	289.464	1	53.28	L	C
ATOM	3136	CG1	VAL	L	13	-93.689	139.54	289.662	1	52.69	L	C
ATOM	3137	CG2	VAL	L	13	-95.255	137.892	290.616	1	52.43	L	C
ATOM	3138	C	VAL	L	13	-95.892	141.225	288.737	1	61.14	L	C
ATOM	3139	O	VAL	L	13	-95.952	141.392	287.507	1	63.11	L	O
ATOM	3140	N	SER	L	14	-95.541	142.196	289.587	1	60.85	L	N
ATOM	3141	CA	SER	L	14	-95.245	143.556	289.142	1	58.3	L	C
ATOM	3142	CB	SER	L	14	-95.16	144.513	290.333	1	56.74		C
ATOM	3143	OG	SER	L	14	-96.432	144.699	290.955	1	54.68		O
ATOM	3144	C	SER	L	14	-93.943	143.596	288.36	1	64.76	L	C
ATOM	3145	O	SER	L	14	-93.109	142.68	288.467	1	67.03	L	O
ATOM	3146	N	LEU	L	15	-93.764	144.668	287.587	1	67.21	L	N
ATOM	3147	CA	LEU	L	15	-92.563	144.826	286.759	1	66.26	L	C
ATOM	3148	CB	LEU	L	15	-92.697	145.957	285.761	1	64.67		C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3149	CG	LEU	L	15	-93.912	145.856	284.832	1	66.71		C
ATOM	3150	CD1	LEU	L	15	-95.082	146.745	285.264	1	64.41		C
ATOM	3151	CD2	LEU	L	15	-93.491	146.196	283.412	1	64.73		C
ATOM	3152	C	LEU	L	15	-91.412	145.112	287.68	1	69.65	L	C
ATOM	3153	O	LEU	L	15	-91.598	145.721	288.741	1	67.72	L	O
ATOM	3154	N	GLY	L	16	-90.231	144.626	287.326	1	68.63	L	N
ATOM	3155	CA	GLY	L	16	-89.08	144.809	288.195	1	66.58	L	C
ATOM	3156	C	GLY	L	16	-89.015	143.927	289.427	1	62.6	L	C
ATOM	3157	O	GLY	L	16	-87.915	143.668	289.906	1	62.84	L	O
ATOM	3158	N	GLN	L	17	-90.161	143.462	289.946	1	64.08	L	N
ATOM	3159	CA	GLN	L	17	-90.197	142.454	291.05	1	64.76	L	C
ATOM	3160	CB	GLN	L	17	-91.622	142.332	291.62	1	65.35	L	C
ATOM	3161	CG	GLN	L	17	-92.137	143.577	292.332	1	70.26	L	C
ATOM	3162	CD	GLN	L	17	-91.197	144.054	293.429	1	75.12	L	C
ATOM	3163	OE1	GLN	L	17	-91.214	143.539	294.551	1	77.12	L	O
ATOM	3164	NE2	GLN	L	17	-90.34	145.019	293.096	1	79.81	L	N
ATOM	3165	C	GLN	L	17	-89.651	141.048	290.691	1	63.7	L	C
ATOM	3166	O	GLN	L	17	-89.192	140.82	289.552	1	66.58	L	O
ATOM	3167	N	ARG	L	18	-89.634	140.133	291.677	1	58.65	L	N
ATOM	3168	CA	ARG	L	18	-89.28	138.728	291.42	1	55.54	L	C
ATOM	3169	CB	ARG	L	18	-88.144	138.181	292.304	1	57.95		C
ATOM	3170	CG	ARG	L	18	-88.479	137.536	293.655	1	61.99		C
ATOM	3171	CD	ARG	L	18	-87.399	136.543	294.118	1	64.57		C
ATOM	3172	NE	ARG	L	18	-86.048	136.88	293.675	1	64.47		N
ATOM	3173	CZ	ARG	L	18	-85.314	137.881	294.154	1	73.18		C
ATOM	3174	NH1	ARG	L	18	-84.095	138.115	293.664	1	75.74		N
ATOM	3175	NH2	ARG	L	18	-85.789	138.677	295.11	1	85.13		N
ATOM	3176	C	ARG	L	18	-90.484	137.808	291.467	1	57.02	L	C
ATOM	3177	O	ARG	L	18	-91.404	137.975	292.303	1	54.8	L	O
ATOM	3178	N	ALA	L	19	-90.453	136.84	290.541	1	53.75	L	N
ATOM	3179	CA	ALA	L	19	-91.428	135.777	290.451	1	48.76	L	C
ATOM	3180	CB	ALA	L	19	-91.995	135.713	289.054	1	48.05	L	C
ATOM	3181	C	ALA	L	19	-90.721	134.479	290.799	1	50.37	L	C
ATOM	3182	O	ALA	L	19	-89.56	134.266	290.422	1	49.99	L	O
ATOM	3183	N	THR	L	20	-91.435	133.619	291.519	1	50.72	L	N
ATOM	3184	CA	THR	L	20	-90.881	132.383	292.057	1	50.23	L	C
ATOM	3185	CB	THR	L	20	-90.637	132.547	293.577	1	46.4		C
ATOM	3186	OG1	THR	L	20	-89.541	133.437	293.782	1	47.79		O
ATOM	3187	CG2	THR	L	20	-90.304	131.257	294.228	1	45.02		C
ATOM	3188	C	THR	L	20	-91.853	131.233	291.763	1	47.82	L	C
ATOM	3189	O	THR	L	20	-92.891	131.16	292.367	1	47.59	L	O
ATOM	3190	N	ILE	L	21	-91.514	130.368	290.812	1	48	L	N
ATOM	3191	CA	ILE	L	21	-92.299	129.187	290.51	1	48.27	L	C
ATOM	3192	CB	ILE	L	21	-92.292	128.844	288.994	1	53.24	L	C
ATOM	3193	CG1	ILE	L	21	-92.629	130.056	288.127	1	52.95	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3194	CD1	ILE	L	21	-93.841	130.792	288.61	1	56.59	L	C
ATOM	3195	CG2	ILE	L	21	-93.272	127.714	288.684	1	55.54	L	C
ATOM	3196	C	ILE	L	21	-91.67	128.028	291.25	1	46.28	L	C
ATOM	3197	O	ILE	L	21	-90.456	127.902	291.269	1	48.4	L	O
ATOM	3198	N	SER	L	22	-92.494	127.148	291.807	1	44.6	L	N
ATOM	3199	CA	SER	L	22	-91.988	125.982	292.486	1	43.39	L	C
ATOM	3200	CB	SER	L	22	-92.347	126.061	293.942	1	45.56	L	C
ATOM	3201	OG	SER	L	22	-91.46	127.042	294.502	1	49.97	L	O
ATOM	3202	C	SER	L	22	-92.397	124.676	291.847	1	44.18	L	C
ATOM	3203	O	SER	L	22	-93.373	124.62	291.112	1	41.87	L	O
ATOM	3204	N	CYS	L	23	-91.55	123.665	292.048	1	42.85	L	N
ATOM	3205	CA	CYS	L	23	-91.789	122.341	291.568	1	48.57	L	C
ATOM	3206	CB	CYS	L	23	-90.993	122.107	290.313	1	53.12	L	C
ATOM	3207	SG	CYS	L	23	-91.708	120.771	289.342	1	63.11	L	S
ATOM	3208	C	CYS	L	23	-91.395	121.339	292.634	1	53.23	L	C
ATOM	3209	O	CYS	L	23	-90.26	121.337	293.094	1	60.2	L	O
ATOM	3210	N	ARG	L	24	-92.355	120.531	293.07	1	58.15	L	N
ATOM	3211	CA	ARG	L	24	-92.118	119.46	294.032	1	59.94	L	C
ATOM	3212	CB	ARG	L	24	-93.227	119.406	295.079	1	67.3		C
ATOM	3213	CG	ARG	L	24	-92.922	118.587	296.331	1	80.01		C
ATOM	3214	CD	ARG	L	24	-92.053	119.342	297.322	1	91.07		C
ATOM	3215	NE	ARG	L	24	-92.78	120.459	297.943	1	104.49		N
ATOM	3216	CZ	ARG	L	24	-92.773	121.741	297.542	1	109.94		C
ATOM	3217	NH1	ARG	L	24	-93.503	122.636	298.216	1	102.82		N
ATOM	3218	NH2	ARG	L	24	-92.06	122.151	296.481	1	113.48		N
ATOM	3219	C	ARG	L	24	-92.122	118.187	293.194	1	56.43	L	C
ATOM	3220	O	ARG	L	24	-92.902	118.068	292.257	1	61.82	L	O
ATOM	3221	N	ALA	L	25	-91.247	117.246	293.505	1	48	L	N
ATOM	3222	CA	ALA	L	25	-91.22	115.997	292.788	1	43.86	L	C
ATOM	3223	CB	ALA	L	25	-89.869	115.81	292.121	1	41.44	L	C
ATOM	3224	C	ALA	L	25	-91.529	114.887	293.805	1	44.82	L	C
ATOM	3225	O	ALA	L	25	-91.085	114.947	294.944	1	47.02	L	O
ATOM	3226	N	SER	L	26	-92.331	113.91	293.397	1	46.35	L	N
ATOM	3227	CA	SER	L	26	-92.761	112.816	294.263	1	47.51	L	C
ATOM	3228	CB	SER	L	26	-93.668	111.876	293.481	1	49.17	L	C
ATOM	3229	OG	SER	L	26	-93.148	111.667	292.171	1	49.74	L	O
ATOM	3230	C	SER	L	26	-91.583	112.037	294.82	1	51.48	L	C
ATOM	3231	O	SER	L	26	-91.587	111.714	295.997	1	56.67	L	O
ATOM	3232	N	GLU	L	27	-90.589	111.737	293.976	1	51.41	L	N
ATOM	3233	CA	GLU	L	27	-89.342	111.098	294.406	1	51.36	L	C
ATOM	3234	CB	GLU	L	27	-89.083	109.763	293.687	1	55.89		C
ATOM	3235	CG	GLU	L	27	-90.224	108.801	293.397	1	56.17		C
ATOM	3236	CD	GLU	L	27	-89.784	107.752	292.384	1	64.74		C
ATOM	3237	OE1	GLU	L	27	-88.556	107.61	292.177	1	67.15		O
ATOM	3238	OE2	GLU	L	27	-90.637	107.071	291.77	1	74.48		O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3239	C	GLU	L	27	-88.156	111.984	294.056	1	51.31	L	C
ATOM	3240	O	GLU	L	27	-88.271	112.889	293.245	1	49.13	L	O
ATOM	3241	N	SER	L	28	-86.989	111.666	294.616	1	56.29	L	N
ATOM	3242	CA	SER	L	28	-85.756	112.399	294.302	1	55.53	L	C
ATOM	3243	CB	SER	L	28	-84.533	111.827	295.01	1	57.13	L	C
ATOM	3244	OG	SER	L	28	-83.338	112.354	294.45	1	55.52	L	O
ATOM	3245	C	SER	L	28	-85.481	112.324	292.835	1	55.66	L	C
ATOM	3246	O	SER	L	28	-85.665	111.275	292.209	1	58.06	L	O
ATOM	3247	N	VAL	L	29	-85	113.441	292.315	1	53.18	L	N
ATOM	3248	CA	VAL	L	29	-84.667	113.59	290.914	1	52.67	L	C
ATOM	3249	CB	VAL	L	29	-85.52	114.75	290.366	1	53.71		C
ATOM	3250	CG1	VAL	L	29	-84.986	115.333	289.076	1	59.1		C
ATOM	3251	CG2	VAL	L	29	-86.931	114.242	290.152	1	54.3		C
ATOM	3252	C	VAL	L	29	-83.141	113.739	290.738	1	51.26	L	C
ATOM	3253	O	VAL	L	29	-82.651	113.974	289.623	1	47.46	L	O
ATOM	3254	N	ASP	L	30	-82.404	113.531	291.837	1	48.57	L	N
ATOM	3255	CA	ASP	L	30	-80.952	113.534	291.848	1	44.32	L	C
ATOM	3256	CB	ASP	L	30	-80.456	113.929	293.223	1	45.57		C
ATOM	3257	CG	ASP	L	30	-80.676	115.397	293.505	1	52.37		C
ATOM	3258	OD1	ASP	L	30	-81.23	116.097	292.619	1	52.92		O
ATOM	3259	OD2	ASP	L	30	-80.317	115.871	294.61	1	58.18		O
ATOM	3260	C	ASP	L	30	-80.341	112.203	291.472	1	47.26	L	C
ATOM	3261	O	ASP	L	30	-80.805	111.141	291.887	1	49.34	L	O
ATOM	3262	N	ASN	L	31	-79.29	112.266	290.665	1	50.59	L	N
ATOM	3263	CA	ASN	L	31	-78.448	111.107	290.405	1	49.39	L	C
ATOM	3264	CB	ASN	L	31	-79.135	110.197	289.399	1	48.15		C
ATOM	3265	CG	ASN	L	31	-78.685	108.763	289.513	1	50.4		C
ATOM	3266	OD1	ASN	L	31	-77.632	108.477	290.073	1	59.76		O
ATOM	3267	ND2	ASN	L	31	-79.471	107.85	288.97	1	46.15		N
ATOM	3268	C	ASN	L	31	-77.06	111.569	289.917	1	48.55	L	C
ATOM	3269	O	ASN	L	31	-76.966	112.495	289.141	1	49.35	L	O
ATOM	3270	N	TYR	L	32	-75.989	110.965	290.422	1	49.15	L	N
ATOM	3271	CA	TYR	L	32	-74.609	111.364	290.08	1	47.47	L	C
ATOM	3272	CB	TYR	L	32	-74.289	110.978	288.641	1	48.73		C
ATOM	3273	CG	TYR	L	32	-74.629	109.55	288.312	1	52.1		C
ATOM	3274	CD1	TYR	L	32	-74.169	108.504	289.092	1	51.92		C
ATOM	3275	CE1	TYR	L	32	-74.499	107.196	288.794	1	52.97		C
ATOM	3276	CZ	TYR	L	32	-75.266	106.922	287.686	1	50.83		C
ATOM	3277	OH	TYR	L	32	-75.575	105.638	287.336	1	54.05		O
ATOM	3278	CE2	TYR	L	32	-75.707	107.931	286.89	1	54.09		C
ATOM	3279	CD2	TYR	L	32	-75.398	109.24	287.207	1	57.15		C
ATOM	3280	C	TYR	L	32	-74.274	112.845	290.309	1	49.3	L	C
ATOM	3281	O	TYR	L	32	-73.598	113.486	289.498	1	57.04	L	O
ATOM	3282	N	GLY	L	33	-74.759	113.385	291.416	1	49.19	L	N
ATOM	3283	CA	GLY	L	33	-74.483	114.75	291.791	1	50.04	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3284	C	GLY	L	33	-75.174	115.804	290.965	1	54.48	L	C
ATOM	3285	O	GLY	L	33	-74.774	116.978	291.015	1	59.77	L	O
ATOM	3286	N	ILE	L	34	-76.218	115.39	290.232	1	54.65	L	N
ATOM	3287	CA	ILE	L	34	-76.97	116.251	289.308	1	48.27	L	C
ATOM	3288	CB	ILE	L	34	-76.804	115.835	287.842	1	49.49		C
ATOM	3289	CG1	ILE	L	34	-75.366	116.096	287.393	1	51.26		C
ATOM	3290	CD1	ILE	L	34	-75.082	115.752	285.94	1	54.62		C
ATOM	3291	CG2	ILE	L	34	-77.841	116.566	286.961	1	49.71		C
ATOM	3292	C	ILE	L	34	-78.433	116.096	289.604	1	42.15	L	C
ATOM	3293	O	ILE	L	34	-78.891	114.998	289.867	1	41.56	L	O
ATOM	3294	N	SER	L	35	-79.151	117.199	289.49	1	38.66	L	N
ATOM	3295	CA	SER	L	35	-80.579	117.255	289.667	1	38.07	L	C
ATOM	3296	CB	SER	L	35	-80.917	118.429	290.568	1	41.93	L	C
ATOM	3297	OG	SER	L	35	-80.78	118.079	291.934	1	46.24		O
ATOM	3298	C	SER	L	35	-81.266	117.422	288.307	1	37.03	L	C
ATOM	3299	O	SER	L	35	-81.168	118.505	287.672	1	33.75	L	O
ATOM	3300	N	PHE	L	36	-81.962	116.366	287.862	1	34.15	L	N
ATOM	3301	CA	PHE	L	36	-82.4	116.288	286.477	1	35.24	L	C
ATOM	3302	CB	PHE	L	36	-82.448	114.844	285.94	1	35.18		C
ATOM	3303	CG	PHE	L	36	-81.089	114.21	285.839	1	39.48		C
ATOM	3304	CD1	PHE	L	36	-80.48	113.632	286.961	1	41.02		C
ATOM	3305	CE1	PHE	L	36	-79.233	113.062	286.885	1	36.38		C
ATOM	3306	CZ	PHE	L	36	-78.545	113.096	285.704	1	37.63		C
ATOM	3307	CE2	PHE	L	36	-79.11	113.671	284.586	1	38.94		C
ATOM	3308	CD2	PHE	L	36	-80.376	114.232	284.657	1	42.25		C
ATOM	3309	C	PHE	L	36	-83.714	117.008	286.366	1	35.59	L	C
ATOM	3310	O	PHE	L	36	-84.752	116.402	286.073	1	32.05	L	O
ATOM	3311	N	MET	L	37	-83.621	118.32	286.562	1	35.81	L	N
ATOM	3312	CA	MET	L	37	-84.744	119.221	286.493	1	39.9	L	C
ATOM	3313	CB	MET	L	37	-84.952	119.899	287.834	1	42.03		C
ATOM	3314	CG	MET	L	37	-86.224	120.738	287.92	1	46.49		C
ATOM	3315	SD	MET	L	37	-87.762	119.872	287.56	1	45.74		S
ATOM	3316	CE	MET	L	37	-87.758	118.543	288.745	1	46.21		C
ATOM	3317	C	MET	L	37	-84.433	120.254	285.425	1	42.03	L	C
ATOM	3318	O	MET	L	37	-83.272	120.635	285.266	1	46.55	L	O
ATOM	3319	N	SER	L	38	-85.459	120.653	284.659	1	40.77	L	N
ATOM	3320	CA	SER	L	38	-85.317	121.665	283.609	1	36.79	L	C
ATOM	3321	CB	SER	L	38	-85.227	121.028	282.227	1	36.37	L	C
ATOM	3322	OG	SER	L	38	-84.248	120.036	282.149	1	38.47		O
ATOM	3323	C	SER	L	38	-86.559	122.497	283.649	1	34.77	L	C
ATOM	3324	O	SER	L	38	-87.586	121.965	283.975	1	35.87	L	O
ATOM	3325	N	TRP	L	39	-86.457	123.773	283.288	1	33.29	L	N
ATOM	3326	CA	TRP	L	39	-87.586	124.674	283.153	1	34.87	L	C
ATOM	3327	CB	TRP	L	39	-87.457	125.882	284.069	1	34.2	L	C
ATOM	3328	CG	TRP	L	39	-87.409	125.568	285.493	1	34.72	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3329	CD1	TRP	L	39	-86.297	125.333	286.234	1	38.72	L	C
ATOM	3330	NE1	TRP	L	39	-86.638	125.096	287.541	1	39.23	L	N
ATOM	3331	CE2	TRP	L	39	-87.992	125.181	287.651	1	35.41	L	C
ATOM	3332	CD2	TRP	L	39	-88.502	125.494	286.376	1	33.62	L	C
ATOM	3333	CE3	TRP	L	39	-89.871	125.635	286.218	1	34.3	L	C
ATOM	3334	CZ3	TRP	L	39	-90.672	125.485	287.305	1	34.63	L	C
ATOM	3335	CH2	TRP	L	39	-90.141	125.191	288.563	1	35.39	L	C
ATOM	3336	CZ2	TRP	L	39	-88.799	125.033	288.756	1	35.27	L	C
ATOM	3337	C	TRP	L	39	-87.66	125.228	281.743	1	39.4	L	C
ATOM	3338	O	TRP	L	39	-86.606	125.399	281.1	1	39.94	L	O
ATOM	3339	N	PHE	L	40	-88.895	125.532	281.29	1	39.4	L	N
ATOM	3340	CA	PHE	L	40	-89.158	126.072	279.935	1	37.25	L	C
ATOM	3341	CB	PHE	L	40	-89.727	124.985	279.02	1	35.32		C
ATOM	3342	CG	PHE	L	40	-88.776	123.871	278.776	1	37.19		C
ATOM	3343	CD1	PHE	L	40	-88.681	122.83	279.654	1	40.67		C
ATOM	3344	CE1	PHE	L	40	-87.76	121.811	279.453	1	42.72		C
ATOM	3345	CZ	PHE	L	40	-86.919	121.845	278.364	1	42.51		C
ATOM	3346	CE2	PHE	L	40	-86.993	122.901	277.488	1	42.08		C
ATOM	3347	CD2	PHE	L	40	-87.915	123.907	277.703	1	40.05		C
ATOM	3348	C	PHE	L	40	-90.142	127.197	280.007	1	37.73	L	C
ATOM	3349	O	PHE	L	40	-90.918	127.27	280.947	1	39.06	L	O
ATOM	3350	N	GLN	L	41	-90.104	128.071	279.014	1	41.44	L	N
ATOM	3351	CA	GLN	L	41	-91.103	129.128	278.84	1	45.17	L	C
ATOM	3352	CB	GLN	L	41	-90.417	130.466	278.616	1	48.29		C
ATOM	3353	CG	GLN	L	41	-91.334	131.69	278.47	1	48.07		C
ATOM	3354	CD	GLN	L	41	-90.52	132.964	278.236	1	49.51		C
ATOM	3355	OE1	GLN	L	41	-89.763	133.083	277.258	1	50.5		O
ATOM	3356	NE2	GLN	L	41	-90.63	133.895	279.155	1	54.34		N
ATOM	3357	C	GLN	L	41	-91.896	128.785	277.612	1	44.45	L	C
ATOM	3358	O	GLN	L	41	-91.328	128.312	276.646	1	48.91	L	O
ATOM	3359	N	GLN	L	42	-93.195	129.023	277.642	1	44.88	L	N
ATOM	3360	CA	GLN	L	42	-94.044	128.795	276.48	1	48.22	L	C
ATOM	3361	CB	GLN	L	42	-94.875	127.516	276.599	1	48.94	L	C
ATOM	3362	CG	GLN	L	42	-95.385	127.029	275.242	1	48.94	L	C
ATOM	3363	CD	GLN	L	42	-96.251	125.8	275.352	1	49.7	L	C
ATOM	3364	OE1	GLN	L	42	-96.846	125.531	276.387	1	52.67	L	O
ATOM	3365	NE2	GLN	L	42	-96.328	125.045	274.281	1	53.39	L	N
ATOM	3366	C	GLN	L	42	-94.975	129.956	276.311	1	51.38	L	C
ATOM	3367	O	GLN	L	42	-95.81	130.234	277.198	1	51.35	L	O
ATOM	3368	N	LYS	L	43	-94.824	130.634	275.177	1	54.94	L	N
ATOM	3369	CA	LYS	L	43	-95.751	131.686	274.791	1	61.72	L	C
ATOM	3370	CB	LYS	L	43	-95.068	132.699	273.884	1	63.35		C
ATOM	3371	CG	LYS	L	43	-93.846	133.372	274.498	1	65.12		C
ATOM	3372	CD	LYS	L	43	-94.241	134.462	275.484	1	64.69		C
ATOM	3373	CE	LYS	L	43	-93.238	135.61	275.497	1	66.57		C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3374	NZ	LYS	L	43	-93.93	136.858	275.929	1	67.72		N
ATOM	3375	C	LYS	L	43	-96.926	131.053	274.052	1	61.48	L	C
ATOM	3376	O	LYS	L	43	-96.75	130.038	273.384	1	61.31	L	O
ATOM	3377	N	PRO	L	44	-98.127	131.641	274.175	1	65.61	L	N
ATOM	3378	CA	PRO	L	44	-99.317	131.262	273.399	1	64.92	L	C
ATOM	3379	CB	PRO	L	44	-100.179	132.521	273.488	1	69.98	L	C
ATOM	3380	CG	PRO	L	44	-99.845	133.094	274.831	1	73.66	L	C
ATOM	3381	CD	PRO	L	44	-98.441	132.688	275.168	1	70.13	L	C
ATOM	3382	C	PRO	L	44	-99.055	130.909	271.922	1	59.72	L	C
ATOM	3383	O	PRO	L	44	-98.732	131.79	271.132	1	58.2	L	O
ATOM	3384	N	GLY	L	45	-99.155	129.62	271.578	1	59.67	L	N
ATOM	3385	CA	GLY	L	45	-99.074	129.155	270.184	1	54.95	L	C
ATOM	3386	C	GLY	L	45	-97.692	128.883	269.66	1	54.81	L	C
ATOM	3387	O	GLY	L	45	-97.538	128.427	268.537	1	48.77	L	O
ATOM	3388	N	GLN	L	46	-96.685	129.119	270.495	1	64.37	L	N
ATOM	3389	CA	GLN	L	46	-95.271	128.986	270.117	1	65.11	L	C
ATOM	3390	CB	GLN	L	46	-94.481	130.201	270.633	1	69.4	L	C
ATOM	3391	CG	GLN	L	46	-94.535	131.405	269.707	1	75.77	L	C
ATOM	3392	CD	GLN	L	46	-93.578	131.283	268.522	1	85.12	L	C
ATOM	3393	OE1	GLN	L	46	-92.367	131.093	268.704	1	85.99	L	O
ATOM	3394	NE2	GLN	L	46	-94.112	131.407	267.303	1	82.59	L	N
ATOM	3395	C	GLN	L	46	-94.773	127.666	270.712	1	56.31	L	C
ATOM	3396	O	GLN	L	46	-95.529	127.001	271.427	1	51.98	L	O
ATOM	3397	N	PRO	L	47	-93.528	127.263	270.397	1	50.18	L	N
ATOM	3398	CA	PRO	L	47	-92.942	126.087	271.032	1	53.61	L	C
ATOM	3399	CB	PRO	L	47	-92.055	125.531	269.929	1	52.81		C
ATOM	3400	CG	PRO	L	47	-91.578	126.73	269.195	1	51.65		C
ATOM	3401	CD	PRO	L	47	-92.599	127.834	269.409	1	51.45		C
ATOM	3402	C	PRO	L	47	-92.077	126.467	272.25	1	53.17	L	C
ATOM	3403	O	PRO	L	47	-91.436	127.518	272.225	1	49.82	L	O
ATOM	3404	N	PRO	L	48	-92.031	125.615	273.291	1	53.47	L	N
ATOM	3405	CA	PRO	L	48	-91.308	125.994	274.5	1	51.22	L	C
ATOM	3406	CB	PRO	L	48	-91.436	124.767	275.408	1	55.23	L	C
ATOM	3407	CG	PRO	L	48	-92.58	123.991	274.888	1	57.97	L	C
ATOM	3408	CD	PRO	L	48	-92.583	124.255	273.404	1	59.84	L	C
ATOM	3409	C	PRO	L	48	-89.857	126.268	274.212	1	49.18	L	C
ATOM	3410	O	PRO	L	48	-89.289	125.629	273.33	1	58.58	L	O
ATOM	3411	N	LYS	L	49	-89.296	127.24	274.922	1	44.87	L	N
ATOM	3412	CA	LYS	L	49	-87.904	127.646	274.799	1	45	L	C
ATOM	3413	CB	LYS	L	49	-87.838	129.165	274.486	1	50.28	L	C
ATOM	3414	CG	LYS	L	49	-86.514	129.932	274.725	1	56.34	L	C
ATOM	3415	CD	LYS	L	49	-86.705	131.46	274.972	1	62.2	L	C
ATOM	3416	CE	LYS	L	49	-85.613	132.109	275.885	1	67.64	L	C
ATOM	3417	NZ	LYS	L	49	-85.984	133.296	276.768	1	60.07	L	N
ATOM	3418	C	LYS	L	49	-87.276	127.237	276.144	1	44.4	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3419	O	LYS	L	49	-87.858	127.429	277.201	1	44.84	L	O
ATOM	3420	N	LEU	L	50	-86.115	126.603	276.094	1	46.53	L	N
ATOM	3421	CA	LEU	L	50	-85.381	126.214	277.295	1	44.42	L	C
ATOM	3422	CB	LEU	L	50	-84.13	125.445	276.907	1	42.39		C
ATOM	3423	CG	LEU	L	50	-83.155	124.922	277.948	1	41.78		C
ATOM	3424	CD1	LEU	L	50	-83.787	123.821	278.788	1	42.51		C
ATOM	3425	CD2	LEU	L	50	-81.958	124.348	277.217	1	43.47		C
ATOM	3426	C	LEU	L	50	-84.965	127.442	278.06	1	46.78	L	C
ATOM	3427	O	LEU	L	50	-84.611	128.446	277.459	1	56.13	L	O
ATOM	3428	N	LEU	L	51	-85.069	127.365	279.381	1	46.5	L	N
ATOM	3429	CA	LEU	L	51	-84.515	128.349	280.297	1	44.86	L	C
ATOM	3430	CB	LEU	L	51	-85.577	128.757	281.298	1	44.25	L	C
ATOM	3431	CG	LEU	L	51	-86.765	129.502	280.717	1	42.63	L	C
ATOM	3432	CD1	LEU	L	51	-87.917	129.601	281.704	1	41.63	L	C
ATOM	3433	CD2	LEU	L	51	-86.308	130.875	280.317	1	47.04	L	C
ATOM	3434	C	LEU	L	51	-83.333	127.772	281.073	1	47.84	L	C
ATOM	3435	O	LEU	L	51	-82.226	128.38	281.135	1	45.74	L	O
ATOM	3436	N	ILE	L	52	-83.578	126.621	281.704	1	48.73	L	N
ATOM	3437	CA	ILE	L	52	-82.632	126.058	282.651	1	51.26	L	C
ATOM	3438	CB	ILE	L	52	-83.071	126.424	284.062	1	55.67	L	C
ATOM	3439	CG1	ILE	L	52	-82.84	127.916	284.276	1	55.19	L	C
ATOM	3440	CD1	ILE	L	52	-83.441	128.402	285.543	1	61.47	L	C
ATOM	3441	CG2	ILE	L	52	-82.289	125.613	285.092	1	61.01	L	C
ATOM	3442	C	ILE	L	52	-82.548	124.565	282.578	1	46.78	L	C
ATOM	3443	O	ILE	L	52	-83.572	123.905	282.495	1	48.61	L	O
ATOM	3444	N	TYR	L	53	-81.332	124.036	282.667	1	45.25	L	N
ATOM	3445	CA	TYR	L	53	-81.11	122.572	282.752	1	44.81	L	C
ATOM	3446	CB	TYR	L	53	-80.383	122.02	281.518	1	44.06	L	C
ATOM	3447	CG	TYR	L	53	-78.94	122.433	281.356	1	44.74	L	C
ATOM	3448	CD1	TYR	L	53	-77.931	121.666	281.873	1	48.24	L	C
ATOM	3449	CE1	TYR	L	53	-76.597	122.02	281.708	1	54.35	L	C
ATOM	3450	CZ	TYR	L	53	-76.268	123.167	280.993	1	53.52	L	C
ATOM	3451	OH	TYR	L	53	-74.945	123.534	280.864	1	47.88	L	O
ATOM	3452	CE2	TYR	L	53	-77.275	123.945	280.456	1	50.3	L	C
ATOM	3453	CD2	TYR	L	53	-78.596	123.572	280.637	1	47.14	L	C
ATOM	3454	C	TYR	L	53	-80.353	122.256	284.009	1	40.86	L	C
ATOM	3455	O	TYR	L	53	-79.933	123.144	284.716	1	50.64	L	O
ATOM	3456	N	ALA	L	54	-80.225	120.985	284.311	1	38.57	L	N
ATOM	3457	CA	ALA	L	54	-79.625	120.52	285.556	1	37.86	L	C
ATOM	3458	CB	ALA	L	54	-78.146	120.297	285.328	1	37.77	L	C
ATOM	3459	C	ALA	L	54	-79.893	121.453	286.763	1	38.42	L	C
ATOM	3460	O	ALA	L	54	-78.97	121.927	287.438	1	40.4	L	O
ATOM	3461	N	ALA	L	55	-81.165	121.765	286.974	1	36.54	L	N
ATOM	3462	CA	ALA	L	55	-81.646	122.64	288.042	1	35.63	L	C
ATOM	3463	CB	ALA	L	55	-81.531	121.944	289.362	1	35.42	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3464	C	ALA	L	55	-81.122	124.081	288.171	1	38.9	L	C
ATOM	3465	O	ALA	L	55	-81.919	124.959	288.501	1	41.81	L	O
ATOM	3466	N	SER	L	56	-79.826	124.336	287.965	1	42.19	L	N
ATOM	3467	CA	SER	L	56	-79.221	125.71	288.137	1	41.1	L	C
ATOM	3468	CB	SER	L	56	-78.214	125.745	289.302	1	38.56	L	C
ATOM	3469	OG	SER	L	56	-77.716	124.444	289.589	1	40.21	L	O
ATOM	3470	C	SER	L	56	-78.522	126.295	286.939	1	39.2	L	C
ATOM	3471	O	SER	L	56	-78.164	127.451	286.982	1	41.57	L	O
ATOM	3472	N	HIS	L	57	-78.34	125.517	285.885	1	39.04	L	N
ATOM	3473	CA	HIS	L	57	-77.522	125.916	284.765	1	41.85	L	C
ATOM	3474	CB	HIS	L	57	-76.792	124.728	284.211	1	43.65		C
ATOM	3475	CG	HIS	L	57	-75.777	124.177	285.147	1	45.31		C
ATOM	3476	ND1	HIS	L	57	-76.087	123.245	286.112	1	47.58		N
ATOM	3477	CE1	HIS	L	57	-75	122.927	286.782	1	48.05		C
ATOM	3478	NE2	HIS	L	57	-73.993	123.616	286.28	1	51.61		N
ATOM	3479	CD2	HIS	L	57	-74.457	124.42	285.264	1	46.34		C
ATOM	3480	C	HIS	L	57	-78.32	126.496	283.649	1	44.54	L	C
ATOM	3481	O	HIS	L	57	-79.293	125.893	283.207	1	54	L	O
ATOM	3482	N	GLN	L	58	-77.823	127.608	283.126	1	45.75	L	N
ATOM	3483	CA	GLN	L	58	-78.52	128.393	282.142	1	46.18	L	C
ATOM	3484	CB	GLN	L	58	-77.938	129.798	282.15	1	49.61		C
ATOM	3485	CG	GLN	L	58	-78.967	130.898	282.125	1	56.19		C
ATOM	3486	CD	GLN	L	58	-79.088	131.641	283.428	1	56.67		C
ATOM	3487	OE1	GLN	L	58	-78.39	131.345	284.383	1	59.62		O
ATOM	3488	NE2	GLN	L	58	-79.978	132.634	283.463	1	60.3		N
ATOM	3489	C	GLN	L	58	-78.369	127.791	280.745	1	47.39	L	C
ATOM	3490	O	GLN	L	58	-77.311	127.264	280.377	1	46.23	L	O
ATOM	3491	N	GLY	L	59	-79.429	127.866	279.956	1	53.49	L	N
ATOM	3492	CA	GLY	L	59	-79.321	127.555	278.529	1	55	L	C
ATOM	3493	C	GLY	L	59	-78.555	128.66	277.822	1	56.28	L	C
ATOM	3494	O	GLY	L	59	-78.389	129.753	278.366	1	59.34	L	O
ATOM	3495	N	SER	L	60	-78.076	128.366	276.619	1	60.7	L	N
ATOM	3496	CA	SER	L	60	-77.504	129.37	275.715	1	64.34	L	C
ATOM	3497	CB	SER	L	60	-77.169	128.741	274.363	1	69.31	L	C
ATOM	3498	OG	SER	L	60	-76.396	127.568	274.535	1	75.3	L	O
ATOM	3499	C	SER	L	60	-78.441	130.548	275.458	1	65.32	L	C
ATOM	3500	O	SER	L	60	-79.573	130.393	274.993	1	72.77	L	O
ATOM	3501	N	GLY	L	61	-77.957	131.734	275.775	1	64.9	L	N
ATOM	3502	CA	GLY	L	61	-78.634	132.957	275.411	1	64.96	L	C
ATOM	3503	C	GLY	L	61	-79.756	133.284	276.344	1	67.42	L	C
ATOM	3504	O	GLY	L	61	-80.593	134.14	276.035	1	79.2	L	O
ATOM	3505	N	VAL	L	62	-79.782	132.623	277.494	1	61.26	L	N
ATOM	3506	CA	VAL	L	62	-80.892	132.782	278.394	1	58.86	L	C
ATOM	3507	CB	VAL	L	62	-81.183	131.493	279.183	1	61.29	L	C
ATOM	3508	CG1	VAL	L	62	-82.352	131.704	280.142	1	62.67	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3509	CG2	VAL	L	62	-81.495	130.35	278.226	1	56.42	L	C
ATOM	3510	C	VAL	L	62	-80.469	133.927	279.29	1	58.41	L	C
ATOM	3511	O	VAL	L	62	-79.394	133.858	279.91	1	58.63	L	O
ATOM	3512	N	PRO	L	63	-81.27	135.004	279.325	1	55.37	L	N
ATOM	3513	CA	PRO	L	63	-80.925	136.138	280.181	1	55.69	L	C
ATOM	3514	CB	PRO	L	63	-82.136	137.072	280.071	1	55.31	L	C
ATOM	3515	CG	PRO	L	63	-82.939	136.613	278.917	1	53.06	L	C
ATOM	3516	CD	PRO	L	63	-82.505	135.223	278.555	1	55.26	L	C
ATOM	3517	C	PRO	L	63	-80.737	135.73	281.638	1	61.26	L	C
ATOM	3518	O	PRO	L	63	-81.306	134.715	282.08	1	68.4	L	O
ATOM	3519	N	ALA	L	64	-79.969	136.536	282.374	1	58.8	L	N
ATOM	3520	CA	ALA	L	64	-79.585	136.233	283.747	1	51.33	L	C
ATOM	3521	CB	ALA	L	64	-78.44	137.102	284.15	1	54.64	L	C
ATOM	3522	C	ALA	L	64	-80.716	136.403	284.724	1	50.43	L	C
ATOM	3523	O	ALA	L	64	-80.639	135.918	285.853	1	53.2	L	O
ATOM	3524	N	ARG	L	65	-81.742	137.126	284.288	1	50.33	L	N
ATOM	3525	CA	ARG	L	65	-83.075	137.174	284.915	1	49.84	L	C
ATOM	3526	CB	ARG	L	65	-84.099	137.617	283.861	1	49.21	L	C
ATOM	3527	CG	ARG	L	65	-84.388	139.079	283.854	1	49.64	L	C
ATOM	3528	CD	ARG	L	65	-85.826	139.391	283.42	1	51.12	L	C
ATOM	3529	NE	ARG	L	65	-86.388	138.995	282.118	1	48.18	L	N
ATOM	3530	CZ	ARG	L	65	-85.76	138.842	280.949	1	54.25	L	C
ATOM	3531	NH1	ARG	L	65	-84.457	139.043	280.773	1	61.25	L	N
ATOM	3532	NH2	ARG	L	65	-86.476	138.467	279.897	1	57.82	L	N
ATOM	3533	C	ARG	L	65	-83.604	135.85	285.453	1	51.79	L	C
ATOM	3534	O	ARG	L	65	-84.272	135.82	286.496	1	58.23	L	O
ATOM	3535	N	PHE	L	66	-83.37	134.785	284.688	1	46.35	L	N
ATOM	3536	CA	PHE	L	66	-83.858	133.473	285.011	1	45.79	L	C
ATOM	3537	CB	PHE	L	66	-84.162	132.733	283.729	1	46.82	L	C
ATOM	3538	CG	PHE	L	66	-85.183	133.409	282.868	1	48.41	L	C
ATOM	3539	CD1	PHE	L	66	-86.525	133.169	283.056	1	49.28	L	C
ATOM	3540	CE1	PHE	L	66	-87.473	133.782	282.266	1	52.36	L	C
ATOM	3541	CZ	PHE	L	66	-87.076	134.651	281.273	1	53.74	L	C
ATOM	3542	CE2	PHE	L	66	-85.738	134.882	281.063	1	51.21	L	C
ATOM	3543	CD2	PHE	L	66	-84.8	134.267	281.859	1	50.57	L	C
ATOM	3544	C	PHE	L	66	-82.8	132.706	285.802	1	48.57	L	C
ATOM	3545	O	PHE	L	66	-81.636	132.692	285.427	1	54.71	L	O
ATOM	3546	N	SER	L	67	-83.204	132.08	286.902	1	46.43	L	N
ATOM	3547	CA	SER	L	67	-82.312	131.224	287.684	1	46.26	L	C
ATOM	3548	CB	SER	L	67	-81.604	132.046	288.746	1	46.94	L	C
ATOM	3549	OG	SER	L	67	-82.55	132.733	289.522	1	47.79		O
ATOM	3550	C	SER	L	67	-83.047	130.052	288.365	1	44.61	L	C
ATOM	3551	O	SER	L	67	-84.182	130.172	288.801	1	44.52	L	O
ATOM	3552	N	GLY	L	68	-82.366	128.92	288.46	1	42.99	L	N
ATOM	3553	CA	GLY	L	68	-82.929	127.737	289.062	1	43.01	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3554	C	GLY	L	68	-82.176	127.375	290.317	1	38.71	L	C
ATOM	3555	O	GLY	L	68	-80.989	127.392	290.323	1	37.59	L	O
ATOM	3556	N	SER	L	69	-82.886	127.105	291.394	1	41.34	L	N
ATOM	3557	CA	SER	L	69	-82.3	126.47	292.555	1	42.47	L	C
ATOM	3558	CB	SER	L	69	-82.364	127.368	293.796	1	43.81	L	C
ATOM	3559	OG	SER	L	69	-83.689	127.774	294.076	1	48.31	L	O
ATOM	3560	C	SER	L	69	-83.064	125.191	292.787	1	42.46	L	C
ATOM	3561	O	SER	L	69	-84.077	124.9	292.122	1	42.92	L	O
ATOM	3562	N	GLY	L	70	-82.53	124.414	293.705	1	40.22	L	N
ATOM	3563	CA	GLY	L	70	-83.181	123.253	294.157	1	42.23	L	C
ATOM	3564	C	GLY	L	70	-82.32	122.036	294.085	1	45.23	L	C
ATOM	3565	O	GLY	L	70	-81.398	121.956	293.285	1	44.85	L	O
ATOM	3566	N	SER	L	71	-82.709	121.065	294.904	1	49.01	L	N
ATOM	3567	CA	SER	L	71	-82.002	119.83	295.087	1	49.9	L	C
ATOM	3568	CB	SER	L	71	-80.993	120.009	296.226	1	51.59	L	C
ATOM	3569	OG	SER	L	71	-80.222	118.833	296.381	1	62.41	L	O
ATOM	3570	C	SER	L	71	-83.024	118.727	295.425	1	48.79	L	C
ATOM	3571	O	SER	L	71	-84.083	118.98	295.998	1	48.09	L	O
ATOM	3572	N	GLY	L	72	-82.715	117.504	295.042	1	45.67	L	N
ATOM	3573	CA	GLY	L	72	-83.508	116.37	295.457	1	47.79	L	C
ATOM	3574	C	GLY	L	72	-84.939	116.335	294.984	1	47.22	L	C
ATOM	3575	O	GLY	L	72	-85.208	115.722	293.961	1	60.33	L	O
ATOM	3576	N	THR	L	73	-85.854	116.927	295.755	1	44.52	L	N
ATOM	3577	CA	THR	L	73	-87.295	116.948	295.405	1	47.68	L	C
ATOM	3578	CB	THR	L	73	-88.159	116.147	296.404	1	46.93	L	C
ATOM	3579	OG1	THR	L	73	-88.032	116.717	297.716	1	48.86	L	O
ATOM	3580	CG2	THR	L	73	-87.768	114.693	296.414	1	46.2	L	C
ATOM	3581	C	THR	L	73	-87.926	118.335	295.372	1	49.32	L	C
ATOM	3582	O	THR	L	73	-89.117	118.456	295.104	1	47.95	L	O
ATOM	3583	N	ASP	L	74	-87.128	119.361	295.633	1	50.56	L	N
ATOM	3584	CA	ASP	L	74	-87.607	120.697	295.861	1	49.69	L	C
ATOM	3585	CB	ASP	L	74	-87.323	121.048	297.294	1	55.17	L	C
ATOM	3586	CG	ASP	L	74	-88.491	121.608	297.962	1	66.18	L	C
ATOM	3587	OD1	ASP	L	74	-89.431	120.812	298.217	1	82.53	L	O
ATOM	3588	OD2	ASP	L	74	-88.47	122.828	298.233	1	75.39	L	O
ATOM	3589	C	ASP	L	74	-86.849	121.632	294.938	1	49.69	L	C
ATOM	3590	O	ASP	L	74	-85.638	121.818	295.087	1	45.02	L	O
ATOM	3591	N	PHE	L	75	-87.561	122.194	293.965	1	47.67	L	N
ATOM	3592	CA	PHE	L	75	-86.945	122.974	292.903	1	42.62	L	C
ATOM	3593	CB	PHE	L	75	-86.893	122.128	291.634	1	40.59	L	C
ATOM	3594	CG	PHE	L	75	-85.939	120.983	291.748	1	42.64	L	C
ATOM	3595	CD1	PHE	L	75	-84.58	121.182	291.54	1	44.87	L	C
ATOM	3596	CE1	PHE	L	75	-83.674	120.145	291.663	1	43.79	L	C
ATOM	3597	CZ	PHE	L	75	-84.122	118.882	292.032	1	48.08	L	C
ATOM	3598	CE2	PHE	L	75	-85.483	118.667	292.265	1	46.97	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3599	CD2	PHE	L	75	-86.377	119.722	292.131	1	45.34	L	C
ATOM	3600	C	PHE	L	75	-87.722	124.238	292.684	1	41.12	L	C
ATOM	3601	O	PHE	L	75	-88.945	124.183	292.608	1	44.25	L	O
ATOM	3602	N	SER	L	76	-87.034	125.374	292.605	1	39.08	L	N
ATOM	3603	CA	SER	L	76	-87.697	126.587	292.152	1	42.96	L	C
ATOM	3604	CB	SER	L	76	-88.049	127.476	293.328	1	43.79	L	C
ATOM	3605	OG	SER	L	76	-87.224	127.138	294.409	1	50.21		O
ATOM	3606	C	SER	L	76	-86.903	127.364	291.118	1	45.46	L	C
ATOM	3607	O	SER	L	76	-85.658	127.319	291.105	1	41.83	L	O
ATOM	3608	N	LEU	L	77	-87.68	128.046	290.262	1	45.77	L	N
ATOM	3609	CA	LEU	L	77	-87.222	128.969	289.225	1	46.17	L	C
ATOM	3610	CB	LEU	L	77	-87.941	128.743	287.884	1	49.57	L	C
ATOM	3611	CG	LEU	L	77	-87.8	129.772	286.741	1	49.14	L	C
ATOM	3612	CD1	LEU	L	77	-86.388	129.744	286.185	1	47.37	L	C
ATOM	3613	CD2	LEU	L	77	-88.775	129.508	285.6	1	48.79	L	C
ATOM	3614	C	LEU	L	77	-87.584	130.344	289.696	1	46.51	L	C
ATOM	3615	O	LEU	L	77	-88.667	130.555	290.25	1	42.32	L	O
ATOM	3616	N	ASN	L	78	-86.674	131.28	289.444	1	49.64	L	N
ATOM	3617	CA	ASN	L	78	-86.802	132.65	289.912	1	53.69	L	C
ATOM	3618	CB	ASN	L	78	-85.776	132.953	291.012	1	56.37		C
ATOM	3619	CG	ASN	L	78	-86.1	132.265	292.334	1	57.9		C
ATOM	3620	OD1	ASN	L	78	-86.996	132.692	293.089	1	51.59		O
ATOM	3621	ND2	ASN	L	78	-85.362	131.193	292.624	1	59.73		N
ATOM	3622	C	ASN	L	78	-86.577	133.562	288.742	1	50.7	L	C
ATOM	3623	O	ASN	L	78	-85.642	133.348	287.979	1	56.06	L	O
ATOM	3624	N	ILE	L	79	-87.431	134.562	288.582	1	49.05	L	N
ATOM	3625	CA	ILE	L	79	-87.243	135.529	287.515	1	52.2	L	C
ATOM	3626	CB	ILE	L	79	-88.381	135.52	286.483	1	54.95	L	C
ATOM	3627	CG1	ILE	L	79	-88.458	134.157	285.783	1	54.19	L	C
ATOM	3628	CD1	ILE	L	79	-89.698	133.923	284.947	1	53.42	L	C
ATOM	3629	CG2	ILE	L	79	-88.131	136.592	285.433	1	54.96	L	C
ATOM	3630	C	ILE	L	79	-87.183	136.851	288.2	1	54.22	L	C
ATOM	3631	O	ILE	L	79	-88.146	137.234	288.876	1	50.07	L	O
ATOM	3632	N	HIS	L	80	-86.056	137.539	288.043	1	58.95	L	N
ATOM	3633	CA	HIS	L	80	-85.877	138.848	288.673	1	68.84	L	C
ATOM	3634	CB	HIS	L	80	-85.444	138.695	290.137	1	75.14		C
ATOM	3635	CG	HIS	L	80	-85.122	139.996	290.804	1	81.35		C
ATOM	3636	ND1	HIS	L	80	-86.087	140.812	291.356	1	80.23		N
ATOM	3637	CE1	HIS	L	80	-85.515	141.895	291.848	1	82.83		C
ATOM	3638	NE2	HIS	L	80	-84.215	141.815	291.627	1	83.68		N
ATOM	3639	CD2	HIS	L	80	-83.943	140.639	290.975	1	81.58		C
ATOM	3640	C	HIS	L	80	-84.821	139.642	287.931	1	68.99	L	C
ATOM	3641	O	HIS	L	80	-83.695	139.17	287.842	1	81.37	L	O
ATOM	3642	N	PRO	L	81	-85.129	140.839	287.426	1	71.56	L	N
ATOM	3643	CA	PRO	L	81	-86.421	141.525	287.547	1	70.33	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3644	CB	PRO	L	81	-86.032	142.997	287.363	1	70.07		C
ATOM	3645	CG	PRO	L	81	-84.82	142.945	286.501	1	73.56		C
ATOM	3646	CD	PRO	L	81	-84.065	141.758	286.992	1	73.17		C
ATOM	3647	C	PRO	L	81	-87.43	141.125	286.464	1	62.94	L	C
ATOM	3648	O	PRO	L	81	-87.066	141.022	285.31	1	53.22	L	O
ATOM	3649	N	MET	L	82	-88.692	140.938	286.835	1	60.34	L	N
ATOM	3650	CA	MET	L	82	-89.755	140.73	285.852	1	62.22	L	C
ATOM	3651	CB	MET	L	82	-91.131	140.696	286.527	1	68.44		C
ATOM	3652	CG	MET	L	82	-91.545	139.343	287.069	1	69.55		C
ATOM	3653	SD	MET	L	82	-91.574	138.04	285.833	1	69.54		S
ATOM	3654	CE	MET	L	82	-92.883	138.638	284.795	1	67.65		C
ATOM	3655	C	MET	L	82	-89.789	141.828	284.814	1	62.12	L	C
ATOM	3656	O	MET	L	82	-89.493	142.97	285.126	1	69.39	L	O
ATOM	3657	N	GLU	L	83	-90.178	141.456	283.595	1	67.86	L	N
ATOM	3658	CA	GLU	L	83	-90.315	142.361	282.438	1	67.26	L	C
ATOM	3659	CB	GLU	L	83	-89.095	142.295	281.531	1	68.03	L	C
ATOM	3660	CG	GLU	L	83	-87.771	142.203	282.25	1	75.15	L	C
ATOM	3661	CD	GLU	L	83	-86.607	142.117	281.286	1	86.68	L	C
ATOM	3662	OE1	GLU	L	83	-86.847	141.923	280.066	1	89.88	L	O
ATOM	3663	OE2	GLU	L	83	-85.451	142.25	281.757	1	92.58	L	O
ATOM	3664	C	GLU	L	83	-91.511	141.932	281.605	1	66.97	L	C
ATOM	3665	O	GLU	L	83	-92.022	140.824	281.771	1	73.99	L	O
ATOM	3666	N	GLU	L	84	-91.905	142.767	280.652	1	63.62	L	N
ATOM	3667	CA	GLU	L	84	-93.191	142.583	279.974	1	64.01	L	C
ATOM	3668	CB	GLU	L	84	-93.523	143.793	279.094	1	64.87	L	C
ATOM	3669	CG	GLU	L	84	-93.812	145.067	279.907	1	69.78	L	C
ATOM	3670	CD	GLU	L	84	-92.603	145.972	280.173	1	71.26	L	C
ATOM	3671	OE1	GLU	L	84	-92.814	147.132	280.604	1	66.08	L	O
ATOM	3672	OE2	GLU	L	84	-91.45	145.538	279.966	1	75.41	L	O
ATOM	3673	C	GLU	L	84	-93.254	141.266	279.199	1	63.12	L	C
ATOM	3674	O	GLU	L	84	-94.255	140.533	279.296	1	64.27	L	O
ATOM	3675	N	ASP	L	85	-92.146	140.948	278.52	1	57.97	L	N
ATOM	3676	CA	ASP	L	85	-92.005	139.74	277.711	1	54.76	L	C
ATOM	3677	CB	ASP	L	85	-90.75	139.846	276.85	1	55.1		C
ATOM	3678	CG	ASP	L	85	-90.582	138.666	275.923	1	62.01		C
ATOM	3679	OD1	ASP	L	85	-91.538	138.373	275.165	1	67.98		O
ATOM	3680	OD2	ASP	L	85	-89.516	138.001	275.972	1	68.09		O
ATOM	3681	C	ASP	L	85	-91.958	138.424	278.502	1	54.32	L	C
ATOM	3682	O	ASP	L	85	-91.93	137.332	277.92	1	54.6	L	O
ATOM	3683	N	ASP	L	86	-91.955	138.507	279.82	1	52.7	L	N
ATOM	3684	CA	ASP	L	86	-91.932	137.319	280.639	1	51.21	L	C
ATOM	3685	CB	ASP	L	86	-91.233	137.633	281.947	1	54.86	L	C
ATOM	3686	CG	ASP	L	86	-89.837	138.144	281.745	1	55.41	L	C
ATOM	3687	OD1	ASP	L	86	-89.28	138.024	280.617	1	51.71	L	O
ATOM	3688	OD2	ASP	L	86	-89.31	138.666	282.743	1	53.98	L	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3689	C	ASP	L	86	-93.304	136.757	280.932	1	51.97	L	C
ATOM	3690	O	ASP	L	86	-93.385	135.769	281.672	1	48.18	L	O
ATOM	3691	N	SER	L	87	-94.372	137.38	280.39	1	53.18	L	N
ATOM	3692	CA	SER	L	87	-95.737	136.843	280.501	1	49.21	L	C
ATOM	3693	CB	SER	L	87	-96.743	137.801	279.892	1	53.74	L	C
ATOM	3694	OG	SER	L	87	-98.048	137.231	279.834	1	56.8		O
ATOM	3695	C	SER	L	87	-95.827	135.547	279.743	1	47	L	C
ATOM	3696	O	SER	L	87	-95.764	135.584	278.533	1	48.56	L	O
ATOM	3697	N	ALA	L	88	-95.951	134.408	280.427	1	43.62	L	N
ATOM	3698	CA	ALA	L	88	-95.842	133.127	279.733	1	44.87	L	C
ATOM	3699	CB	ALA	L	88	-94.432	132.958	279.201	1	46.29		C
ATOM	3700	C	ALA	L	88	-96.196	131.927	280.597	1	49.34	L	C
ATOM	3701	O	ALA	L	88	-96.472	132.045	281.8	1	52.87	L	O
ATOM	3702	N	MET	L	89	-96.214	130.768	279.958	1	50.86	L	N
ATOM	3703	CA	MET	L	89	-96.327	129.525	280.677	1	56.06	L	C
ATOM	3704	CB	MET	L	89	-96.94	128.436	279.812	1	66.02		C
ATOM	3705	CG	MET	L	89	-98.448	128.503	279.776	1	68.38		C
ATOM	3706	SD	MET	L	89	-99.036	127.768	281.3	1	76.39		S
ATOM	3707	CE	MET	L	89	-100.492	128.777	281.509	1	77.49		C
ATOM	3708	C	MET	L	89	-94.942	129.118	281.051	1	50.65	L	C
ATOM	3709	O	MET	L	89	-94.02	129.291	280.27	1	43.13	L	O
ATOM	3710	N	TYR	L	90	-94.804	128.571	282.253	1	50.89	L	N
ATOM	3711	CA	TYR	L	90	-93.536	128.023	282.71	1	45.19	L	C
ATOM	3712	CB	TYR	L	90	-92.952	128.898	283.8	1	42.29	L	C
ATOM	3713	CG	TYR	L	90	-92.575	130.244	283.25	1	42.99	L	C
ATOM	3714	CD1	TYR	L	90	-91.319	130.467	282.714	1	43.98	L	C
ATOM	3715	CE1	TYR	L	90	-90.973	131.699	282.193	1	45.11	L	C
ATOM	3716	CZ	TYR	L	90	-91.896	132.722	282.18	1	44.24	L	C
ATOM	3717	OH	TYR	L	90	-91.541	133.939	281.652	1	52.11	L	O
ATOM	3718	CE2	TYR	L	90	-93.152	132.523	282.677	1	41.43	L	C
ATOM	3719	CD2	TYR	L	90	-93.494	131.283	283.197	1	43.54	L	C
ATOM	3720	C	TYR	L	90	-93.738	126.572	283.121	1	43.48	L	C
ATOM	3721	O	TYR	L	90	-94.589	126.266	283.922	1	39.08	L	O
ATOM	3722	N	PHE	L	91	-92.973	125.688	282.495	1	46.33	L	N
ATOM	3723	CA	PHE	L	91	-93.129	124.268	282.652	1	49.26	L	C
ATOM	3724	CB	PHE	L	91	-93.353	123.596	281.291	1	51.34		C
ATOM	3725	CG	PHE	L	91	-94.796	123.566	280.87	1	63.77		C
ATOM	3726	CD1	PHE	L	91	-95.725	122.729	281.548	1	67.27		C
ATOM	3727	CE1	PHE	L	91	-97.075	122.675	281.175	1	59.6		C
ATOM	3728	CZ	PHE	L	91	-97.524	123.474	280.128	1	62.25		C
ATOM	3729	CE2	PHE	L	91	-96.629	124.321	279.456	1	65.52		C
ATOM	3730	CD2	PHE	L	91	-95.27	124.365	279.816	1	65.19		C
ATOM	3731	C	PHE	L	91	-91.875	123.729	283.349	1	54.7	L	C
ATOM	3732	O	PHE	L	91	-90.737	124.15	283.09	1	50.86	L	O
ATOM	3733	N	CYS	L	92	-92.145	122.779	284.227	1	55.42	L	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3734	CA	CYS	L	92	-91.201	122.039	285.033	1	51.31	L	C
ATOM	3735	CB	CYS	L	92	-91.896	121.864	286.406	1	53.86	L	C
ATOM	3736	SG	CYS	L	92	-90.867	120.957	287.495	1	72.03	L	S
ATOM	3737	C	CYS	L	92	-90.984	120.68	284.308	1	44.43	L	C
ATOM	3738	O	CYS	L	92	-91.909	120.173	283.7	1	45.15	L	O
ATOM	3739	N	LEU	L	93	-89.804	120.078	284.322	1	43.7	L	N
ATOM	3740	CA	LEU	L	93	-89.596	118.756	283.624	1	42.24	L	C
ATOM	3741	CB	LEU	L	93	-89.32	118.915	282.119	1	42.09		C
ATOM	3742	CG	LEU	L	93	-88.636	117.676	281.469	1	44.91		C
ATOM	3743	CD1	LEU	L	93	-89.64	116.575	281.227	1	46.62		C
ATOM	3744	CD2	LEU	L	93	-87.898	117.966	280.168	1	47.85		C
ATOM	3745	C	LEU	L	93	-88.418	117.995	284.173	1	39.54	L	C
ATOM	3746	O	LEU	L	93	-87.335	118.572	284.253	1	38.28	L	O
ATOM	3747	N	GLN	L	94	-88.61	116.697	284.452	1	39.25	L	N
ATOM	3748	CA	GLN	L	94	-87.546	115.819	284.979	1	38.35	L	C
ATOM	3749	CB	GLN	L	94	-87.895	115.233	286.341	1	36.17	L	C
ATOM	3750	CG	GLN	L	94	-89.016	114.225	286.337	1	38.41	L	C
ATOM	3751	CD	GLN	L	94	-88.654	112.796	285.914	1	40.4	L	C
ATOM	3752	OE1	GLN	L	94	-87.516	112.336	286.036	1	38.4	L	O
ATOM	3753	NE2	GLN	L	94	-89.659	112.084	285.398	1	44.38	L	N
ATOM	3754	C	GLN	L	94	-87.164	114.709	284.019	1	37.82	L	C
ATOM	3755	O	GLN	L	94	-88.005	114.227	283.296	1	38.19	L	O
ATOM	3756	N	SER	L	95	-85.878	114.333	284.044	1	40.77	L	N
ATOM	3757	CA	SER	L	95	-85.23	113.386	283.103	1	39.07	L	C
ATOM	3758	CB	SER	L	95	-84.236	114.128	282.218	1	36.46		C
ATOM	3759	OG	SER	L	95	-84.321	115.527	282.438	1	42.43		O
ATOM	3760	C	SER	L	95	-84.453	112.268	283.813	1	43.7	L	C
ATOM	3761	O	SER	L	95	-83.775	111.453	283.128	1	44.56	L	O
ATOM	3762	N	LYS	L	96	-84.555	112.212	285.152	1	42.73	L	N
ATOM	3763	CA	LYS	L	96	-83.827	111.241	285.953	1	44.42	L	C
ATOM	3764	CB	LYS	L	96	-83.93	111.552	287.443	1	46.6		C
ATOM	3765	CG	LYS	L	96	-84.138	110.379	288.397	1	52.23		C
ATOM	3766	CD	LYS	L	96	-82.888	109.57	288.705	1	54.77		C
ATOM	3767	CE	LYS	L	96	-82.986	108.888	290.066	1	52.77		C
ATOM	3768	NZ	LYS	L	96	-84.072	107.87	290.08	1	56.84		N
ATOM	3769	C	LYS	L	96	-84.319	109.87	285.63	1	47.29	L	C
ATOM	3770	O	LYS	L	96	-83.535	108.952	285.519	1	59.29	L	O
ATOM	3771	N	GLU	L	97	-85.618	109.745	285.434	1	57.17	L	N
ATOM	3772	CA	GLU	L	97	-86.242	108.48	285.052	1	58.64	L	C
ATOM	3773	CB	GLU	L	97	-87.178	108.003	286.155	1	62.87		C
ATOM	3774	CG	GLU	L	97	-86.526	107.115	287.192	1	65.87		C
ATOM	3775	CD	GLU	L	97	-87.556	106.485	288.091	1	68.04		C
ATOM	3776	OE1	GLU	L	97	-88.752	106.503	287.698	1	63.92		O
ATOM	3777	OE2	GLU	L	97	-87.169	105.995	289.18	1	70.35		O
ATOM	3778	C	GLU	L	97	-87.101	108.62	283.836	1	53.69	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3779	O	GLU	L	97	-87.618	109.697	283.541	1	54.91	L	O
ATOM	3780	N	VAL	L	98	-87.303	107.481	283.198	1	49.15	L	N
ATOM	3781	CA	VAL	L	98	-88.28	107.312	282.16	1	49.32	L	C
ATOM	3782	CB	VAL	L	98	-87.726	106.369	281.083	1	51.18		C
ATOM	3783	CG1	VAL	L	98	-88.833	105.634	280.327	1	54.54		C
ATOM	3784	CG2	VAL	L	98	-86.833	107.168	280.14	1	48.23		C
ATOM	3785	C	VAL	L	98	-89.517	106.729	282.831	1	49.72	L	C
ATOM	3786	O	VAL	L	98	-89.366	105.931	283.741	1	54.62	L	O
ATOM	3787	N	PRO	L	99	-90.732	107.127	282.443	1	51.26	L	N
ATOM	3788	CA	PRO	L	99	-90.996	108.247	281.507	1	49.6	L	C
ATOM	3789	CB	PRO	L	99	-92.519	108.168	281.297	1	47.42	L	C
ATOM	3790	CG	PRO	L	99	-93.046	107.559	282.566	1	47.49	L	C
ATOM	3791	CD	PRO	L	99	-91.927	106.781	283.24	1	47.63	L	C
ATOM	3792	C	PRO	L	99	-90.617	109.629	282.068	1	47.23	L	C
ATOM	3793	O	PRO	L	99	-90.652	109.847	283.29	1	49.01	L	O
ATOM	3794	N	TRP	L	100	-90.236	110.539	281.186	1	42.24	L	N
ATOM	3795	CA	TRP	L	100	-90.059	111.909	281.592	1	42.96	L	C
ATOM	3796	CB	TRP	L	100	-89.291	112.689	280.54	1	43.51		C
ATOM	3797	CG	TRP	L	100	-87.919	112.21	280.324	1	42.25		C
ATOM	3798	CD1	TRP	L	100	-87.345	111.076	280.828	1	42.06		C
ATOM	3799	NE1	TRP	L	100	-86.071	110.948	280.371	1	40.25		N
ATOM	3800	CE2	TRP	L	100	-85.79	112.014	279.566	1	38.1		C
ATOM	3801	CD2	TRP	L	100	-86.947	112.809	279.496	1	37.9		C
ATOM	3802	CE3	TRP	L	100	-86.933	113.941	278.712	1	38.18		C
ATOM	3803	CZ3	TRP	L	100	-85.756	114.258	278.036	1	39.34		C
ATOM	3804	CH2	TRP	L	100	-84.625	113.445	278.125	1	37.96		C
ATOM	3805	CZ2	TRP	L	100	-84.627	112.32	278.881	1	37.78		C
ATOM	3806	C	TRP	L	100	-91.444	112.528	281.83	1	48.02	L	C
ATOM	3807	O	TRP	L	100	-92.452	112.152	281.178	1	43.96	L	O
ATOM	3808	N	THR	L	101	-91.495	113.458	282.785	1	46.03	L	N
ATOM	3809	CA	THR	L	101	-92.76	113.989	283.241	1	46.88	L	C
ATOM	3810	CB	THR	L	101	-93.225	113.244	284.512	1	49.68	L	C
ATOM	3811	OG1	THR	L	101	-92.243	113.345	285.547	1	50.38	L	O
ATOM	3812	CG2	THR	L	101	-93.434	111.778	284.217	1	51.63	L	C
ATOM	3813	C	THR	L	101	-92.666	115.482	283.499	1	46.6	L	C
ATOM	3814	O	THR	L	101	-91.704	115.946	284.119	1	44.32	L	O
ATOM	3815	N	PHE	L	102	-93.688	116.216	283.042	1	45.67	L	N
ATOM	3816	CA	PHE	L	102	-93.748	117.671	283.162	1	42.5	L	C
ATOM	3817	CB	PHE	L	102	-94.36	118.284	281.918	1	40.11	L	C
ATOM	3818	CG	PHE	L	102	-93.529	118.091	280.685	1	39.53	L	C
ATOM	3819	CD1	PHE	L	102	-93.512	116.89	280.038	1	40.01	L	C
ATOM	3820	CE1	PHE	L	102	-92.753	116.695	278.921	1	42.09	L	C
ATOM	3821	CZ	PHE	L	102	-91.976	117.726	278.441	1	44.34	L	C
ATOM	3822	CE2	PHE	L	102	-91.979	118.939	279.085	1	41.69	L	C
ATOM	3823	CD2	PHE	L	102	-92.772	119.12	280.183	1	40.86	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3824	C	PHE	L	102	-94.585	118.097	284.347	1	44.94	L	C
ATOM	3825	O	PHE	L	102	-95.445	117.374	284.809	1	47.65	L	O
ATOM	3826	N	GLY	L	103	-94.327	119.3	284.83	1	48.39	L	N
ATOM	3827	CA	GLY	L	103	-95.247	119.991	285.718	1	46.61	L	C
ATOM	3828	C	GLY	L	103	-96.47	120.418	284.93	1	43.36	L	C
ATOM	3829	O	GLY	L	103	-96.49	120.382	283.705	1	41.1	L	O
ATOM	3830	N	GLY	L	104	-97.49	120.84	285.651	1	45.71	L	N
ATOM	3831	CA	GLY	L	104	-98.777	121.165	285.056	1	49.91	L	C
ATOM	3832	C	GLY	L	104	-98.875	122.57	284.549	1	52.82	L	C
ATOM	3833	O	GLY	L	104	-99.879	122.944	283.949	1	66.66	L	O
ATOM	3834	N	GLY	L	105	-97.849	123.362	284.821	1	52.36	L	N
ATOM	3835	CA	GLY	L	105	-97.705	124.672	284.239	1	45.03	L	C
ATOM	3836	C	GLY	L	105	-98.005	125.732	285.252	1	42.77	L	C
ATOM	3837	O	GLY	L	105	-98.659	125.487	286.276	1	41.01	L	O
ATOM	3838	N	THR	L	106	-97.47	126.91	284.969	1	44.61	L	N
ATOM	3839	CA	THR	L	106	-97.716	128.093	285.752	1	44.07	L	C
ATOM	3840	CB	THR	L	106	-96.596	128.378	286.763	1	42.53	L	C
ATOM	3841	OG1	THR	L	106	-96.547	127.316	287.727	1	38.57	L	O
ATOM	3842	CG2	THR	L	106	-96.893	129.697	287.521	1	45.36	L	C
ATOM	3843	C	THR	L	106	-97.895	129.253	284.795	1	43.81	L	C
ATOM	3844	O	THR	L	106	-96.985	129.572	284.035	1	43.36	L	O
ATOM	3845	N	LYS	L	107	-99.083	129.854	284.848	1	46.91	L	N
ATOM	3846	CA	LYS	L	107	-99.442	131.036	284.077	1	54.52	L	C
ATOM	3847	CB	LYS	L	107	-100.979	131.114	283.941	1	61.7	L	C
ATOM	3848	CG	LYS	L	107	-101.523	131.933	282.764	1	70.06	L	C
ATOM	3849	CD	LYS	L	107	-102.955	132.447	283.012	1	74	L	C
ATOM	3850	CE	LYS	L	107	-103.841	132.382	281.768	1	72.88	L	C
ATOM	3851	NZ	LYS	L	107	-103.2	132.98	280.559	1	70.03	L	N
ATOM	3852	C	LYS	L	107	-98.898	132.285	284.797	1	56.03	L	C
ATOM	3853	O	LYS	L	107	-99.393	132.668	285.864	1	53.17	L	O
ATOM	3854	N	LEU	L	108	-97.868	132.907	284.227	1	57.48	L	N
ATOM	3855	CA	LEU	L	108	-97.308	134.116	284.81	1	59.94	L	C
ATOM	3856	CB	LEU	L	108	-95.792	134.104	284.695	1	60.28	L	C
ATOM	3857	CG	LEU	L	108	-95.033	135.213	285.435	1	60.21	L	C
ATOM	3858	CD1	LEU	L	108	-95.304	135.241	286.929	1	60.39	L	C
ATOM	3859	CD2	LEU	L	108	-93.553	135.002	285.182	1	63.08	L	C
ATOM	3860	C	LEU	L	108	-97.895	135.321	284.097	1	60.08	L	C
ATOM	3861	O	LEU	L	108	-97.728	135.439	282.894	1	70.74	L	O
ATOM	3862	N	GLU	L	109	-98.616	136.173	284.83	1	60.73	L	N
ATOM	3863	CA	GLU	L	109	-99.204	137.424	284.304	1	65.86	L	C
ATOM	3864	CB	GLU	L	109	-100.713	137.592	284.728	1	74.94	L	C
ATOM	3865	CG	GLU	L	109	-101.349	139.012	284.535	1	81.42	L	C
ATOM	3866	CD	GLU	L	109	-102.707	139.276	285.25	1	77.99	L	C
ATOM	3867	OE1	GLU	L	109	-102.882	138.928	286.437	1	73.56	L	O
ATOM	3868	OE2	GLU	L	109	-103.616	139.884	284.64	1	74.07	L	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3869	C	GLU	L	109	-98.327	138.574	284.827	1	64.12	L	C
ATOM	3870	O	GLU	L	109	-97.76	138.489	285.914	1	58.78	L	O
ATOM	3871	N	ILE	L	110	-98.181	139.624	284.022	1	67.31	L	N
ATOM	3872	CA	ILE	L	110	-97.596	140.892	284.482	1	65.05	L	C
ATOM	3873	CB	ILE	L	110	-96.961	141.651	283.31	1	62.61	L	C
ATOM	3874	CG1	ILE	L	110	-95.623	141.021	282.969	1	64.73	L	C
ATOM	3875	CD1	ILE	L	110	-94.521	141.358	283.949	1	64.54	L	C
ATOM	3876	CG2	ILE	L	110	-96.77	143.127	283.626	1	63.93	L	C
ATOM	3877	C	ILE	L	110	-98.629	141.785	285.18	1	62.45	L	C
ATOM	3878	O	ILE	L	110	-99.672	142.098	284.618	1	62.79	L	O
ATOM	3879	N	LYS	L	111	-98.308	142.208	286.394	1	60.96	L	N
ATOM	3880	CA	LYS	L	111	-99.124	143.156	287.129	1	62.53	L	C
ATOM	3881	CB	LYS	L	111	-99.058	142.902	288.638	1	68.52	L	C
ATOM	3882	CG	LYS	L	111	-100.301	143.361	289.405	1	74.76	L	C
ATOM	3883	CD	LYS	L	111	-100.239	143.016	290.899	1	78.2	L	C
ATOM	3884	CE	LYS	L	111	-100.931	141.685	291.18	1	87.71	L	C
ATOM	3885	NZ	LYS	L	111	-100.531	141.042	292.465	1	92.88	L	N
ATOM	3886	C	LYS	L	111	-98.749	144.607	286.761	1	59.85	L	C
ATOM	3887	O	LYS	L	111	-97.647	145.084	286.94	1	59.91	L	O
ATOM	3888	N	ARG	L	112	-99.753	145.309	286.304	1	64.99	L	N
ATOM	3889	CA	ARG	L	112	-99.646	146.56	285.609	1	62.39	L	C
ATOM	3890	CB	ARG	L	112	-100.398	146.397	284.289	1	65.7	L	C
ATOM	3891	CG	ARG	L	112	-99.63	146.72	283.034	1	65.85	L	C
ATOM	3892	CD	ARG	L	112	-100.596	147.189	281.968	1	63.59	L	C
ATOM	3893	NE	ARG	L	112	-100.935	148.575	282.287	1	61.65	L	N
ATOM	3894	CZ	ARG	L	112	-100.667	149.63	281.527	1	58.52	L	C
ATOM	3895	NH1	ARG	L	112	-100.106	149.51	280.321	1	61.36	L	N
ATOM	3896	NH2	ARG	L	112	-100.998	150.831	281.977	1	58.7	L	N
ATOM	3897	C	ARG	L	112	-100.394	147.575	286.453	1	56.5	L	C
ATOM	3898	O	ARG	L	112	-101.235	147.198	287.305	1	50.23	L	O
ATOM	3899	N	THR	L	113	-100.147	148.851	286.189	1	52.65	L	N
ATOM	3900	CA	THR	L	113	-101.064	149.879	286.677	1	58.14	L	C
ATOM	3901	CB	THR	L	113	-100.568	151.303	286.407	1	55.63	L	C
ATOM	3902	OG1	THR	L	113	-100.269	151.452	285.008	1	57.35	L	O
ATOM	3903	CG2	THR	L	113	-99.366	151.598	287.257	1	55.07	L	C
ATOM	3904	C	THR	L	113	-102.427	149.709	285.999	1	59.03	L	C
ATOM	3905	O	THR	L	113	-102.506	149.229	284.833	1	58.34	L	O
ATOM	3906	N	VAL	L	114	-103.474	150.12	286.723	1	53.39	L	N
ATOM	3907	CA	VAL	L	114	-104.861	150.008	286.234	1	56.76	L	C
ATOM	3908	CB	VAL	L	114	-105.89	150.588	287.239	1	63.61		C
ATOM	3909	CG1	VAL	L	114	-107.301	150.381	286.713	1	64.82		C
ATOM	3910	CG2	VAL	L	114	-105.734	149.995	288.645	1	66.09		C
ATOM	3911	C	VAL	L	114	-105.011	150.815	284.953	1	53.98	L	C
ATOM	3912	O	VAL	L	114	-104.565	151.938	284.914	1	54.98	L	O
ATOM	3913	N	ALA	L	115	-105.641	150.259	283.927	1	58.94	L	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3914	CA	ALA	L	115	-105.882	150.98	282.662	1	63.55	L	C
ATOM	3915	CB	ALA	L	115	-104.804	150.647	281.642	1	55.95	L	C
ATOM	3916	C	ALA	L	115	-107.269	150.677	282.069	1	66.39	L	C
ATOM	3917	O	ALA	L	115	-107.54	149.553	281.688	1	65.92	L	O
ATOM	3918	N	ALA	L	116	-108.113	151.703	281.964	1	71.84	L	N
ATOM	3919	CA	ALA	L	116	-109.478	151.578	281.411	1	69.24	L	C
ATOM	3920	CB	ALA	L	116	-110.277	152.85	281.677	1	70.18	L	C
ATOM	3921	C	ALA	L	116	-109.504	151.277	279.913	1	66.04	L	C
ATOM	3922	O	ALA	L	116	-108.593	151.656	279.184	1	63.15	L	O
ATOM	3923	N	PRO	L	117	-110.572	150.613	279.443	1	70.29	L	N
ATOM	3924	CA	PRO	L	117	-110.623	150.231	278.021	1	70.91	L	C
ATOM	3925	CB	PRO	L	117	-111.727	149.157	277.978	1	65.62	L	C
ATOM	3926	CG	PRO	L	117	-112.579	149.442	279.159	1	63.79	L	C
ATOM	3927	CD	PRO	L	117	-111.706	150.061	280.211	1	64.97	L	C
ATOM	3928	C	PRO	L	117	-110.984	151.383	277.098	1	71.67	L	C
ATOM	3929	O	PRO	L	117	-111.542	152.38	277.552	1	74.35	L	O
ATOM	3930	N	SER	L	118	-110.643	151.235	275.819	1	77.75	L	N
ATOM	3931	CA	SER	L	118	-111.182	152.074	274.744	1	78.47	L	C
ATOM	3932	CB	SER	L	118	-110.095	152.533	273.765	1	78.27	L	C
ATOM	3933	OG	SER	L	118	-109.437	153.681	274.271	1	79.23		O
ATOM	3934	C	SER	L	118	-112.238	151.264	274.013	1	78.04	L	C
ATOM	3935	O	SER	L	118	-111.934	150.278	273.357	1	70.44	L	O
ATOM	3936	N	VAL	L	119	-113.479	151.72	274.121	1	82.88	L	N
ATOM	3937	CA	VAL	L	119	-114.629	151.033	273.555	1	76.96	L	C
ATOM	3938	CB	VAL	L	119	-115.895	151.292	274.386	1	72.99	L	C
ATOM	3939	CG1	VAL	L	119	-116.994	150.325	273.962	1	72.77	L	C
ATOM	3940	CG2	VAL	L	119	-115.594	151.189	275.893	1	69.65	L	C
ATOM	3941	C	VAL	L	119	-114.866	151.473	272.106	1	78.7	L	C
ATOM	3942	O	VAL	L	119	-114.582	152.603	271.724	1	79.72	L	O
ATOM	3943	N	PHE	L	120	-115.367	150.552	271.299	1	84.82	L	N
ATOM	3944	CA	PHE	L	120	-115.665	150.807	269.906	1	87.27	L	C
ATOM	3945	CB	PHE	L	120	-114.445	150.54	269.031	1	88.52		C
ATOM	3946	CG	PHE	L	120	-113.382	151.576	269.139	1	98.51		C
ATOM	3947	CD1	PHE	L	120	-113.445	152.733	268.372	1	109.3		C
ATOM	3948	CE1	PHE	L	120	-112.453	153.699	268.47	1	119.43		C
ATOM	3949	CZ	PHE	L	120	-111.383	153.51	269.342	1	118.63		C
ATOM	3950	CE2	PHE	L	120	-111.311	152.357	270.112	1	113.66		C
ATOM	3951	CD2	PHE	L	120	-112.304	151.397	270.005	1	109.84		C
ATOM	3952	C	PHE	L	120	-116.773	149.853	269.521	1	99.2	L	C
ATOM	3953	O	PHE	L	120	-116.497	148.703	269.17	1	106.4	L	O
ATOM	3954	N	ILE	L	121	-118.02	150.317	269.625	1	106.55	L	N
ATOM	3955	CA	ILE	L	121	-119.186	149.525	269.189	1	106.91	L	C
ATOM	3956	CB	ILE	L	121	-120.498	150.025	269.839	1	114.22	L	C
ATOM	3957	CG1	ILE	L	121	-121.637	149.022	269.569	1	116.53	L	C
ATOM	3958	CD1	ILE	L	121	-122.813	149.124	270.515	1	118.12	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	3959	CG2	ILE	L	121	-120.837	151.451	269.392	1	116.08	L	C
ATOM	3960	C	ILE	L	121	-119.28	149.473	267.655	1	96.23	L	C
ATOM	3961	O	ILE	L	121	-118.782	150.367	266.985	1	92.76	L	O
ATOM	3962	N	PHE	L	122	-119.861	148.396	267.122	1	99.4	L	N
ATOM	3963	CA	PHE	L	122	-120.009	148.176	265.675	1	106.85	L	C
ATOM	3964	CB	PHE	L	122	-118.992	147.148	265.2	1	104.58	L	C
ATOM	3965	CG	PHE	L	122	-117.594	147.669	265.135	1	105.87	L	C
ATOM	3966	CD1	PHE	L	122	-116.846	147.807	266.291	1	97.12	L	C
ATOM	3967	CE1	PHE	L	122	-115.555	148.286	266.239	1	99.73	L	C
ATOM	3968	CZ	PHE	L	122	-114.991	148.63	265.019	1	105.35	L	C
ATOM	3969	CE2	PHE	L	122	-115.724	148.492	263.854	1	106	L	C
ATOM	3970	CD2	PHE	L	122	-117.021	148.01	263.915	1	102.85	L	C
ATOM	3971	C	PHE	L	122	-121.406	147.649	265.311	1	119.45	L	C
ATOM	3972	O	PHE	L	122	-122.094	147.098	266.178	1	124.09	L	O
ATOM	3973	N	PRO	L	123	-121.842	147.844	264.038	1	121.95	L	N
ATOM	3974	CA	PRO	L	123	-122.988	147.135	263.455	1	114.33	L	C
ATOM	3975	CB	PRO	L	123	-123.915	148.284	263.028	1	119.37	L	C
ATOM	3976	CG	PRO	L	123	-123.098	149.542	263.132	1	124.79	L	C
ATOM	3977	CD	PRO	L	123	-121.674	149.124	263.335	1	126.25	L	C
ATOM	3978	C	PRO	L	123	-122.643	146.267	262.218	1	108.3	L	C
ATOM	3979	O	PRO	L	123	-121.484	146.294	261.769	1	101	L	O
ATOM	3980	N	PRO	L	124	-123.65	145.531	261.656	1	91.41	L	N
ATOM	3981	CA	PRO	L	124	-123.531	144.507	260.578	1	93.2	L	C
ATOM	3982	CB	PRO	L	124	-124.973	144.015	260.429	1	91.58	L	C
ATOM	3983	CG	PRO	L	124	-125.534	144.184	261.781	1	90.42	L	C
ATOM	3984	CD	PRO	L	124	-125.014	145.509	262.218	1	87.65	L	C
ATOM	3985	C	PRO	L	124	-122.946	144.91	259.208	1	93.5	L	C
ATOM	3986	O	PRO	L	124	-122.037	145.718	259.163	1	100.93	L	O
ATOM	3987	N	SER	L	125	-123.415	144.301	258.116	1	100.78	L	N
ATOM	3988	CA	SER	L	125	-122.926	144.63	256.776	1	109.01	L	C
ATOM	3989	CB	SER	L	125	-121.568	143.96	256.555	1	109.61	L	C
ATOM	3990	OG	SER	L	125	-121.126	144.144	255.222	1	112.72	L	O
ATOM	3991	C	SER	L	125	-123.878	144.28	255.604	1	120.88	L	C
ATOM	3992	O	SER	L	125	-124.764	143.416	255.705	1	110.34	L	O
ATOM	3993	N	ASP	L	126	-123.638	144.959	254.482	1	132.75	L	N
ATOM	3994	CA	ASP	L	126	-124.448	144.823	253.268	1	145.33	L	C
ATOM	3995	CB	ASP	L	126	-124.004	145.822	252.185	1	148.85		C
ATOM	3996	CG	ASP	L	126	-124.193	147.28	252.595	1	148.72		C
ATOM	3997	OD1	ASP	L	126	-123.755	147.66	253.704	1	148.59		O
ATOM	3998	OD2	ASP	L	126	-124.754	148.054	251.788	1	141.75		O
ATOM	3999	C	ASP	L	126	-124.327	143.422	252.695	1	154.13	L	C
ATOM	4000	O	ASP	L	126	-125.334	142.767	252.421	1	167.11	L	O
ATOM	4001	N	GLU	L	127	-123.08	142.98	252.531	1	152.73	L	N
ATOM	4002	CA	GLU	L	127	-122.759	141.685	251.92	1	149.32	L	C
ATOM	4003	CB	GLU	L	127	-121.241	141.514	251.776	1	146.38	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4004	CG	GLU	L	127	-120.513	142.568	250.944	1	141.58	L	C
ATOM	4005	CD	GLU	L	127	-119.092	142.806	251.44	1	137.88	L	C
ATOM	4006	OE1	GLU	L	127	-118.332	141.822	251.572	1	134.64	L	O
ATOM	4007	OE2	GLU	L	127	-118.735	143.974	251.71	1	125.14	L	O
ATOM	4008	C	GLU	L	127	-123.301	140.501	252.734	1	148.79	L	C
ATOM	4009	O	GLU	L	127	-123.699	139.48	252.158	1	144.18	L	O
ATOM	4010	N	GLN	L	128	-123.318	140.643	254.063	1	139.46	L	N
ATOM	4011	CA	GLN	L	128	-123.684	139.541	254.954	1	136.03	L	C
ATOM	4012	CB	GLN	L	128	-122.829	139.572	256.223	1	130.55	L	C
ATOM	4013	CG	GLN	L	128	-122.566	138.183	256.785	1	124	L	C
ATOM	4014	CD	GLN	L	128	-122.167	138.182	258.244	1	119.57	L	C
ATOM	4015	OE1	GLN	L	128	-121.126	137.641	258.599	1	114.63	L	O
ATOM	4016	NE2	GLN	L	128	-122.989	138.789	259.099	1	121.8	L	N
ATOM	4017	C	GLN	L	128	-125.178	139.498	255.305	1	137.41	L	C
ATOM	4018	O	GLN	L	128	-125.728	138.403	255.476	1	137.21	L	O
ATOM	4019	N	LEU	L	129	-125.833	140.66	255.411	1	133.62	L	N
ATOM	4020	CA	LEU	L	129	-127.307	140.7	255.587	1	132.32	L	C
ATOM	4021	CB	LEU	L	129	-127.821	142.12	255.878	1	131.41	L	C
ATOM	4022	CG	LEU	L	129	-128.069	142.43	257.354	1	130.99	L	C
ATOM	4023	CD1	LEU	L	129	-126.768	142.425	258.133	1	134.38	L	C
ATOM	4024	CD2	LEU	L	129	-128.774	143.768	257.514	1	131.13	L	C
ATOM	4025	C	LEU	L	129	-128.08	140.101	254.401	1	128.42	L	C
ATOM	4026	O	LEU	L	129	-129.209	139.62	254.575	1	105.86	L	O
ATOM	4027	N	LYS	L	130	-127.457	140.14	253.216	1	133.27	L	N
ATOM	4028	CA	LYS	L	130	-127.958	139.479	251.997	1	125.1	L	C
ATOM	4029	CB	LYS	L	130	-127.261	140.055	250.75	1	121.99	L	C
ATOM	4030	CG	LYS	L	130	-127.539	141.534	250.505	1	121.85		C
ATOM	4031	C	LYS	L	130	-127.84	137.936	252.013	1	121.97	L	C
ATOM	4032	O	LYS	L	130	-128.159	137.285	251.015	1	119.56	L	O
ATOM	4033	N	SER	L	131	-127.345	137.364	253.116	1	120.37	L	N
ATOM	4034	CA	SER	L	131	-127.653	135.983	253.503	1	117.62	L	C
ATOM	4035	CB	SER	L	131	-126.377	135.137	253.533	1	117.94	L	C
ATOM	4036	OG	SER	L	131	-125.885	134.929	252.219	1	114.11	L	O
ATOM	4037	C	SER	L	131	-128.385	135.973	254.863	1	119.2	L	C
ATOM	4038	O	SER	L	131	-128.129	135.118	255.721	1	109.86	L	O
ATOM	4039	N	GLY	L	132	-129.309	136.927	255.034	1	126.4	L	N
ATOM	4040	CA	GLY	L	132	-130.133	137.079	256.24	1	129.78	L	C
ATOM	4041	C	GLY	L	132	-129.464	136.778	257.568	1	136.32	L	C
ATOM	4042	O	GLY	L	132	-130.065	136.14	258.435	1	134.15	L	O
ATOM	4043	N	THR	L	133	-128.216	137.227	257.715	1	148.91	L	N
ATOM	4044	CA	THR	L	133	-127.426	137.026	258.942	1	144.82	L	C
ATOM	4045	CB	THR	L	133	-126.541	135.754	258.882	1	148.19		C
ATOM	4046	OG1	THR	L	133	-125.856	135.69	257.623	1	147.79		O
ATOM	4047	CG2	THR	L	133	-127.386	134.487	259.078	1	147.21		C
ATOM	4048	C	THR	L	133	-126.557	138.255	259.234	1	131.37	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4049	O	THR	L	133	-126.109	138.96	258.319	1	109.19	L	O
ATOM	4050	N	ALA	L	134	-126.319	138.482	260.522	1	125.32	L	N
ATOM	4051	CA	ALA	L	134	-125.743	139.727	261.018	1	122.24	L	C
ATOM	4052	CB	ALA	L	134	-126.867	140.657	261.435	1	126.8	L	C
ATOM	4053	C	ALA	L	134	-124.814	139.477	262.198	1	118.89	L	C
ATOM	4054	O	ALA	L	134	-124.719	138.355	262.687	1	121.95	L	O
ATOM	4055	N	SER	L	135	-124.136	140.536	262.649	1	121	L	N
ATOM	4056	CA	SER	L	135	-123.287	140.493	263.854	1	114.58	L	C
ATOM	4057	CB	SER	L	135	-121.991	139.725	263.57	1	115.86	L	C
ATOM	4058	OG	SER	L	135	-121.646	139.79	262.195	1	115.08	L	O
ATOM	4059	C	SER	L	135	-122.976	141.889	264.421	1	105.17	L	C
ATOM	4060	O	SER	L	135	-122.745	142.82	263.665	1	108.54	L	O
ATOM	4061	N	VAL	L	136	-122.947	142.008	265.749	1	96.73	L	N
ATOM	4062	CA	VAL	L	136	-122.788	143.29	266.464	1	94.55	L	C
ATOM	4063	CB	VAL	L	136	-124.137	143.746	267.079	1	101.52	L	C
ATOM	4064	CG1	VAL	L	136	-124.016	145.04	267.895	1	100.71	L	C
ATOM	4065	CG2	VAL	L	136	-125.165	143.934	265.968	1	105.79	L	C
ATOM	4066	C	VAL	L	136	-121.665	143.191	267.531	1	94.77	L	C
ATOM	4067	O	VAL	L	136	-121.883	142.825	268.697	1	75.65	L	O
ATOM	4068	N	VAL	L	137	-120.46	143.548	267.099	1	95.48	L	N
ATOM	4069	CA	VAL	L	137	-119.244	143.496	267.912	1	82.27	L	C
ATOM	4070	CB	VAL	L	137	-118.024	143.688	266.995	1	81.49	L	C
ATOM	4071	CG1	VAL	L	137	-116.715	143.769	267.781	1	83.72	L	C
ATOM	4072	CG2	VAL	L	137	-117.989	142.567	265.949	1	85.95	L	C
ATOM	4073	C	VAL	L	137	-119.272	144.586	268.975	1	80.38	L	C
ATOM	4074	O	VAL	L	137	-120.013	145.552	268.854	1	80.42	L	O
ATOM	4075	N	CYS	L	138	-118.496	144.405	270.037	1	85.99	L	N
ATOM	4076	CA	CYS	L	138	-118.203	145.489	270.975	1	88.29	L	C
ATOM	4077	CB	CYS	L	138	-119.232	145.513	272.094	1	91.21	L	C
ATOM	4078	SG	CYS	L	138	-118.985	146.938	273.147	1	98.96	L	S
ATOM	4079	C	CYS	L	138	-116.773	145.397	271.535	1	91.54	L	C
ATOM	4080	O	CYS	L	138	-116.53	144.782	272.579	1	94.66	L	O
ATOM	4081	N	LEU	L	139	-115.839	146.032	270.823	1	94.22	L	N
ATOM	4082	CA	LEU	L	139	-114.401	145.993	271.14	1	87	L	C
ATOM	4083	CB	LEU	L	139	-113.612	146.549	269.956	1	88.27		C
ATOM	4084	CG	LEU	L	139	-112.091	146.664	270.089	1	99.79		C
ATOM	4085	CD1	LEU	L	139	-111.472	145.283	270.273	1	103.48		C
ATOM	4086	CD2	LEU	L	139	-111.505	147.363	268.868	1	98.52		C
ATOM	4087	C	LEU	L	139	-114.011	146.79	272.376	1	80.24	L	C
ATOM	4088	O	LEU	L	139	-114.143	147.994	272.362	1	88.15	L	O
ATOM	4089	N	LEU	L	140	-113.519	146.13	273.427	1	76.9	L	N
ATOM	4090	CA	LEU	L	140	-112.77	146.82	274.497	1	76.27	L	C
ATOM	4091	CB	LEU	L	140	-113.001	146.19	275.856	1	72.27	L	C
ATOM	4092	CG	LEU	L	140	-114.372	146.446	276.471	1	73.37	L	C
ATOM	4093	CD1	LEU	L	140	-115.476	145.833	275.619	1	77.67	L	C

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ATOM	4094	CD2	LEU	L	140	-114.414	145.904	277.894	1	67.15	L	C
ATOM	4095	C	LEU	L	140	-111.285	146.772	274.133	1	80.08	L	C
ATOM	4096	O	LEU	L	140	-110.848	145.859	273.424	1	74.71	L	O
ATOM	4097	N	ASN	L	141	-110.506	147.748	274.597	1	78.78	L	N
ATOM	4098	CA	ASN	L	141	-109.136	147.887	274.094	1	78.21	L	C
ATOM	4099	CB	ASN	L	141	-109.101	148.866	272.905	1	76.88	L	C
ATOM	4100	CG	ASN	L	141	-108.196	148.396	271.773	1	73.87	L	C
ATOM	4101	OD1	ASN	L	141	-108.068	147.202	271.522	1	76.97	L	O
ATOM	4102	ND2	ASN	L	141	-107.581	149.335	271.073	1	69.95	L	N
ATOM	4103	C	ASN	L	141	-108.113	148.289	275.149	1	76.46	L	C
ATOM	4104	O	ASN	L	141	-108.239	149.333	275.799	1	77.13	L	O
ATOM	4105	N	ASN	L	142	-107.118	147.417	275.312	1	70.87	L	N
ATOM	4106	CA	ASN	L	142	-105.905	147.689	276.076	1	66.55	L	C
ATOM	4107	CB	ASN	L	142	-105.028	148.705	275.352	1	67.17	L	C
ATOM	4108	CG	ASN	L	142	-104.705	148.265	273.94	1	70.28	L	C
ATOM	4109	OD1	ASN	L	142	-105.57	147.755	273.24	1	72.55	L	O
ATOM	4110	ND2	ASN	L	142	-103.465	148.436	273.522	1	74.61	L	N
ATOM	4111	C	ASN	L	142	-106.194	148.104	277.494	1	63.99	L	C
ATOM	4112	O	ASN	L	142	-105.743	149.136	277.972	1	71.61	L	O
ATOM	4113	N	PHE	L	143	-106.932	147.243	278.169	1	59.06	L	N
ATOM	4114	CA	PHE	L	143	-107.335	147.484	279.548	1	54.43	L	C
ATOM	4115	CB	PHE	L	143	-108.861	147.246	279.764	1	54.33	L	C
ATOM	4116	CG	PHE	L	143	-109.363	145.915	279.264	1	53.15	L	C
ATOM	4117	CD1	PHE	L	143	-109.619	145.709	277.905	1	55.99	L	C
ATOM	4118	CE1	PHE	L	143	-110.045	144.474	277.439	1	58.43	L	C
ATOM	4119	CZ	PHE	L	143	-110.234	143.433	278.337	1	58.4	L	C
ATOM	4120	CE2	PHE	L	143	-109.978	143.627	279.683	1	55.77	L	C
ATOM	4121	CD2	PHE	L	143	-109.559	144.867	280.136	1	52.63	L	C
ATOM	4122	C	PHE	L	143	-106.46	146.606	280.458	1	49.48	L	C
ATOM	4123	O	PHE	L	143	-105.79	145.684	279.979	1	48.11	L	O
ATOM	4124	N	TYR	L	144	-106.427	146.927	281.744	1	43.59	L	N
ATOM	4125	CA	TYR	L	144	-105.825	146.059	282.737	1	48.28	L	C
ATOM	4126	CB	TYR	L	144	-104.308	146.217	282.8	1	47.88	L	C
ATOM	4127	CG	TYR	L	144	-103.713	145.238	283.785	1	48.63	L	C
ATOM	4128	CD1	TYR	L	144	-103.696	145.502	285.156	1	50.09	L	C
ATOM	4129	CE1	TYR	L	144	-103.192	144.582	286.056	1	53.28	L	C
ATOM	4130	CZ	TYR	L	144	-102.715	143.375	285.59	1	53.48	L	C
ATOM	4131	OH	TYR	L	144	-102.224	142.409	286.446	1	63.57	L	O
ATOM	4132	CE2	TYR	L	144	-102.73	143.103	284.245	1	51.93	L	C
ATOM	4133	CD2	TYR	L	144	-103.242	144.025	283.357	1	48.98	L	C
ATOM	4134	C	TYR	L	144	-106.439	146.423	284.096	1	56.05	L	C
ATOM	4135	O	TYR	L	144	-106.415	147.603	284.439	1	59.51	L	O
ATOM	4136	N	PRO	L	145	-106.975	145.476	284.889	1	57.3	L	N
ATOM	4137	CA	PRO	L	145	-106.905	144.03	284.717	1	54.48	L	C
ATOM	4138	CB	PRO	L	145	-107.42	143.526	286.057	1	60.36	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4139	CG	PRO	L	145	-107.047	144.582	287.021	1	63.79	L	C
ATOM	4140	CD	PRO	L	145	-107.38	145.824	286.259	1	64.96	L	C
ATOM	4141	C	PRO	L	145	-107.77	143.392	283.639	1	58.82	L	C
ATOM	4142	O	PRO	L	145	-108.536	144.072	282.971	1	57.24	L	O
ATOM	4143	N	ARG	L	146	-107.642	142.066	283.517	1	65.49	L	N
ATOM	4144	CA	ARG	L	146	-108.446	141.226	282.604	1	64.4	L	C
ATOM	4145	CB	ARG	L	146	-107.95	139.765	282.661	1	70.77		C
ATOM	4146	CG	ARG	L	146	-108.514	138.782	281.623	1	77.23		C
ATOM	4147	CD	ARG	L	146	-108.225	137.334	282.037	1	84.98		C
ATOM	4148	NE	ARG	L	146	-108.702	136.329	281.073	1	85.86		N
ATOM	4149	CZ	ARG	L	146	-108.014	135.868	280.019	1	90.45		C
ATOM	4150	NH1	ARG	L	146	-106.778	136.302	279.722	1	86.11		N
ATOM	4151	NH2	ARG	L	146	-108.576	134.953	279.235	1	93.6		N
ATOM	4152	C	ARG	L	146	-109.936	141.234	282.895	1	60.03	L	C
ATOM	4153	O	ARG	L	146	-110.726	141.002	281.985	1	64.51	L	O
ATOM	4154	N	GLU	L	147	-110.334	141.466	284.145	1	61.43	L	N
ATOM	4155	CA	GLU	L	147	-111.752	141.344	284.512	1	69.91	L	C
ATOM	4156	CB	GLU	L	147	-111.943	141.09	286.008	1	78.24		C
ATOM	4157	CG	GLU	L	147	-111.567	139.678	286.451	1	86.85		C
ATOM	4158	CD	GLU	L	147	-110.067	139.458	286.628	1	90.67		C
ATOM	4159	OE1	GLU	L	147	-109.66	138.269	286.651	1	88.66		O
ATOM	4160	OE2	GLU	L	147	-109.305	140.46	286.745	1	91.05		O
ATOM	4161	C	GLU	L	147	-112.544	142.56	284.12	1	72.49	L	C
ATOM	4162	O	GLU	L	147	-112.643	143.503	284.898	1	77.61	L	O
ATOM	4163	N	ALA	L	148	-113.098	142.53	282.909	1	77.8	L	N
ATOM	4164	CA	ALA	L	148	-114.143	143.476	282.48	1	82.57	L	C
ATOM	4165	CB	ALA	L	148	-114.097	143.621	280.969	1	80.21	L	C
ATOM	4166	C	ALA	L	148	-115.557	143.024	282.928	1	86.43	L	C
ATOM	4167	O	ALA	L	148	-115.702	142.064	283.701	1	88.87	L	O
ATOM	4168	N	LYS	L	149	-116.587	143.741	282.472	1	90.18	L	N
ATOM	4169	CA	LYS	L	149	-117.964	143.212	282.437	1	85.39	L	C
ATOM	4170	CB	LYS	L	149	-118.623	143.228	283.821	1	90.03		C
ATOM	4171	CG	LYS	L	149	-119.075	141.85	284.331	1	94.61		C
ATOM	4172	CD	LYS	L	149	-118.483	141.528	285.708	1	95.94		C
ATOM	4173	CE	LYS	L	149	-118.658	140.066	286.104	1	97.38		C
ATOM	4174	NZ	LYS	L	149	-120.069	139.736	286.44	1	98.21		N
ATOM	4175	C	LYS	L	149	-118.758	144.026	281.434	1	80.73	L	C
ATOM	4176	O	LYS	L	149	-118.941	145.224	281.622	1	87.48	L	O
ATOM	4177	N	VAL	L	150	-119.204	143.352	280.377	1	78.12	L	N
ATOM	4178	CA	VAL	L	150	-119.736	143.951	279.156	1	78.25	L	C
ATOM	4179	CB	VAL	L	150	-118.963	143.392	277.939	1	76.81	L	C
ATOM	4180	CG1	VAL	L	150	-119.52	143.893	276.607	1	80.27	L	C
ATOM	4181	CG2	VAL	L	150	-117.496	143.746	278.053	1	77.35	L	C
ATOM	4182	C	VAL	L	150	-121.224	143.594	279.024	1	93.04	L	C
ATOM	4183	O	VAL	L	150	-121.573	142.568	278.421	1	84.34	L	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4184	N	GLN	L	151	-122.096	144.457	279.559	1	107.64	L	N
ATOM	4185	CA	GLN	L	151	-123.563	144.208	279.564	1	111.73	L	C
ATOM	4186	CB	GLN	L	151	-124.23	144.58	280.914	1	118.92		C
ATOM	4187	CG	GLN	L	151	-123.432	145.442	281.9	1	122.46		C
ATOM	4188	CD	GLN	L	151	-124.183	145.715	283.208	1	127.69		C
ATOM	4189	OE1	GLN	L	151	-125.049	144.936	283.625	1	113.89		O
ATOM	4190	NE2	GLN	L	151	-123.846	146.826	283.863	1	129.22		N
ATOM	4191	C	GLN	L	151	-124.283	144.889	278.386	1	104.47	L	C
ATOM	4192	O	GLN	L	151	-124.297	146.111	278.286	1	97.24	L	O
ATOM	4193	N	TRP	L	152	-124.867	144.086	277.496	1	114.61	L	N
ATOM	4194	CA	TRP	L	152	-125.637	144.605	276.346	1	117.27	L	C
ATOM	4195	CB	TRP	L	152	-125.843	143.516	275.288	1	108.24	L	C
ATOM	4196	CG	TRP	L	152	-124.61	143.146	274.555	1	109.86	L	C
ATOM	4197	CD1	TRP	L	152	-123.733	142.162	274.879	1	114.42	L	C
ATOM	4198	NE1	TRP	L	152	-122.721	142.1	273.949	1	113.58	L	N
ATOM	4199	CE2	TRP	L	152	-122.937	143.057	272.998	1	114.05	L	C
ATOM	4200	CD2	TRP	L	152	-124.124	143.735	273.349	1	116.1	L	C
ATOM	4201	CE3	TRP	L	152	-124.577	144.773	272.526	1	122.8	L	C
ATOM	4202	CZ3	TRP	L	152	-123.831	145.107	271.389	1	123.04	L	C
ATOM	4203	CH2	TRP	L	152	-122.651	144.415	271.073	1	125.08	L	C
ATOM	4204	CZ2	TRP	L	152	-122.189	143.389	271.862	1	120.41	L	C
ATOM	4205	C	TRP	L	152	-127.01	145.149	276.758	1	115.4	L	C
ATOM	4206	O	TRP	L	152	-127.547	144.788	277.803	1	114.84	L	O
ATOM	4207	N	LYS	L	153	-127.558	146.039	275.933	1	110.79	L	N
ATOM	4208	CA	LYS	L	153	-128.968	146.451	276.029	1	104.11	L	C
ATOM	4209	CB	LYS	L	153	-129.23	147.444	277.182	1	90.94	L	C
ATOM	4210	CG	LYS	L	153	-127.999	148.074	277.829	1	92.92	L	C
ATOM	4211	CD	LYS	L	153	-128.332	149.273	278.722	1	91.94	L	C
ATOM	4212	CE	LYS	L	153	-129.071	148.924	280.013	1	86.85	L	C
ATOM	4213	NZ	LYS	L	153	-128.223	148.203	281.012	1	83.01	L	N
ATOM	4214	C	LYS	L	153	-129.459	147.014	274.691	1	108.63	L	C
ATOM	4215	O	LYS	L	153	-129.164	148.162	274.359	1	102.87	L	O
ATOM	4216	N	VAL	L	154	-130.187	146.184	273.932	1	118.96	L	N
ATOM	4217	CA	VAL	L	154	-130.93	146.621	272.728	1	121.58	L	C
ATOM	4218	CB	VAL	L	154	-131.255	145.438	271.774	1	115.8		C
ATOM	4219	CG1	VAL	L	154	-132.01	145.919	270.537	1	111.34		C
ATOM	4220	CG2	VAL	L	154	-129.981	144.705	271.377	1	116.45		C
ATOM	4221	C	VAL	L	154	-132.235	147.29	273.184	1	117.03	L	C
ATOM	4222	O	VAL	L	154	-133.159	146.604	273.62	1	125.98	L	O
ATOM	4223	N	ASP	L	155	-132.28	148.625	273.124	1	109.61	L	N
ATOM	4224	CA	ASP	L	155	-133.387	149.449	273.668	1	111.52	L	C
ATOM	4225	CB	ASP	L	155	-134.756	149.079	273.042	1	117.05	L	C
ATOM	4226	CG	ASP	L	155	-134.72	148.996	271.514	1	117.97	L	C
ATOM	4227	OD1	ASP	L	155	-134.183	149.923	270.867	1	125.75	L	O
ATOM	4228	OD2	ASP	L	155	-135.258	148.01	270.963	1	109.86	L	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4229	C	ASP	L	155	-133.509	149.474	275.219	1	102.77	L	C
ATOM	4230	O	ASP	L	155	-134.197	150.349	275.748	1	93.47	L	O
ATOM	4231	N	ASN	L	156	-132.776	148.582	275.905	1	100.11	L	N
ATOM	4232	CA	ASN	L	156	-132.881	148.176	277.346	1	98.06	L	C
ATOM	4233	CB	ASN	L	156	-133.773	149.081	278.238	1	93.12		C
ATOM	4234	CG	ASN	L	156	-133.048	150.335	278.703	1	95.59		C
ATOM	4235	OD1	ASN	L	156	-132.408	151.024	277.911	1	94.86		O
ATOM	4236	ND2	ASN	L	156	-133.138	150.63	279.996	1	99.9		N
ATOM	4237	C	ASN	L	156	-133.192	146.676	277.56	1	100.53	L	C
ATOM	4238	O	ASN	L	156	-133.418	146.251	278.703	1	89.75	L	O
ATOM	4239	N	ALA	L	157	-133.161	145.883	276.473	1	105.69	L	N
ATOM	4240	CA	ALA	L	157	-133.237	144.401	276.525	1	100.59	L	C
ATOM	4241	CB	ALA	L	157	-134.118	143.86	275.4	1	95.47	L	C
ATOM	4242	C	ALA	L	157	-131.855	143.731	276.479	1	96.41	L	C
ATOM	4243	O	ALA	L	157	-131.298	143.477	275.401	1	82.67	L	O
ATOM	4244	N	LEU	L	158	-131.323	143.438	277.665	1	98.26	L	N
ATOM	4245	CA	LEU	L	158	-130.126	142.63	277.792	1	98.93	L	C
ATOM	4246	CB	LEU	L	158	-129.809	142.337	279.271	1	102.64		C
ATOM	4247	CG	LEU	L	158	-128.435	141.694	279.584	1	102.85		C
ATOM	4248	CD1	LEU	L	158	-127.957	142.051	280.989	1	101.42		C
ATOM	4249	CD2	LEU	L	158	-128.426	140.175	279.408	1	103.02		C
ATOM	4250	C	LEU	L	158	-130.316	141.335	277.006	1	102.24	L	C
ATOM	4251	O	LEU	L	158	-131.113	140.473	277.388	1	98.38	L	O
ATOM	4252	N	GLN	L	159	-129.593	141.231	275.892	1	118.01	L	N
ATOM	4253	CA	GLN	L	159	-129.553	140.013	275.074	1	120.8	L	C
ATOM	4254	CB	GLN	L	159	-129.108	140.356	273.645	1	124.88		C
ATOM	4255	CG	GLN	L	159	-128.892	139.168	272.72	1	134.56		C
ATOM	4256	CD	GLN	L	159	-130.181	138.528	272.224	1	140.05		C
ATOM	4257	OE1	GLN	L	159	-131.047	138.152	273.017	1	139.7		O
ATOM	4258	NE2	GLN	L	159	-130.304	138.379	270.9	1	139.97		N
ATOM	4259	C	GLN	L	159	-128.624	138.956	275.697	1	115.24	L	C
ATOM	4260	O	GLN	L	159	-127.391	139.047	275.567	1	106.04	L	O
ATOM	4261	N	SER	L	160	-129.238	137.97	276.367	1	113.63	L	N
ATOM	4262	CA	SER	L	160	-128.538	136.807	276.944	1	105.64	L	C
ATOM	4263	CB	SER	L	160	-129.286	136.275	278.167	1	103.16	L	C
ATOM	4264	OG	SER	L	160	-129.544	137.315	279.101	1	107.84		O
ATOM	4265	C	SER	L	160	-128.407	135.704	275.905	1	93.92	L	C
ATOM	4266	O	SER	L	160	-129.014	135.771	274.843	1	91.32	L	O
ATOM	4267	N	GLY	L	161	-127.562	134.719	276.187	1	93.57	L	N
ATOM	4268	CA	GLY	L	161	-127.357	133.571	275.292	1	95.78	L	C
ATOM	4269	C	GLY	L	161	-126.891	133.824	273.859	1	96.49	L	C
ATOM	4270	O	GLY	L	161	-126.745	132.876	273.088	1	86.84	L	O
ATOM	4271	N	ASN	L	162	-126.667	135.091	273.505	1	108.58	L	N
ATOM	4272	CA	ASN	L	162	-126.258	135.51	272.155	1	107.87	L	C
ATOM	4273	CB	ASN	L	162	-127.336	136.44	271.584	1	105.78		C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4274	CG	ASN	L	162	-127.53	136.291	270.084	1	104.55		C
ATOM	4275	OD1	ASN	L	162	-128.632	136.512	269.567	1	96.86		O
ATOM	4276	ND2	ASN	L	162	-126.46	135.953	269.373	1	105.97		N
ATOM	4277	C	ASN	L	162	-124.881	136.214	272.17	1	108.76	L	C
ATOM	4278	O	ASN	L	162	-124.139	136.169	271.186	1	86.32	L	O
ATOM	4279	N	SER	L	163	-124.576	136.891	273.281	1	119.9	L	N
ATOM	4280	CA	SER	L	163	-123.207	137.251	273.675	1	115.69	L	C
ATOM	4281	CB	SER	L	163	-123.209	137.711	275.134	1	104.57	L	C
ATOM	4282	OG	SER	L	163	-123.833	136.727	275.947	1	94.39		O
ATOM	4283	C	SER	L	163	-122.204	136.097	273.55	1	123.18	L	C
ATOM	4284	O	SER	L	163	-122.547	134.921	273.715	1	133.55	L	O
ATOM	4285	N	GLN	L	164	-120.956	136.467	273.292	1	123.1	L	N
ATOM	4286	CA	GLN	L	164	-119.862	135.521	273.112	1	113.23	L	C
ATOM	4287	CB	GLN	L	164	-120.02	134.756	271.787	1	109.6		C
ATOM	4288	CG	GLN	L	164	-120.593	133.352	271.911	1	111.75		C
ATOM	4289	CD	GLN	L	164	-120.017	132.407	270.866	1	111.02		C
ATOM	4290	OE1	GLN	L	164	-119.912	132.754	269.687	1	111.49		O
ATOM	4291	NE2	GLN	L	164	-119.627	131.215	271.296	1	105.24		N
ATOM	4292	C	GLN	L	164	-118.529	136.289	273.15	1	110.7	L	C
ATOM	4293	O	GLN	L	164	-118.02	136.753	272.112	1	107.06	L	O
ATOM	4294	N	GLU	L	165	-117.985	136.439	274.358	1	97.18	L	N
ATOM	4295	CA	GLU	L	165	-116.676	137.084	274.55	1	80.17	L	C
ATOM	4296	CB	GLU	L	165	-116.447	137.388	276.027	1	70.39		C
ATOM	4297	CG	GLU	L	165	-117.2	138.623	276.478	1	65.69		C
ATOM	4298	CD	GLU	L	165	-117.175	138.808	277.985	1	63.36		C
ATOM	4299	OE1	GLU	L	165	-116.263	138.263	278.628	1	67.08		O
ATOM	4300	OE2	GLU	L	165	-118.057	139.506	278.544	1	63.52		O
ATOM	4301	C	GLU	L	165	-115.505	136.274	273.977	1	77.95	L	C
ATOM	4302	O	GLU	L	165	-115.682	135.18	273.419	1	75.2	L	O
ATOM	4303	N	SER	L	166	-114.321	136.869	274.072	1	76.36	L	N
ATOM	4304	CA	SER	L	166	-113.066	136.28	273.606	1	73.89	L	C
ATOM	4305	CB	SER	L	166	-113.111	136.009	272.101	1	63.84	L	C
ATOM	4306	OG	SER	L	166	-111.801	135.962	271.571	1	71.27	L	O
ATOM	4307	C	SER	L	166	-111.942	137.265	273.928	1	69.82	L	C
ATOM	4308	O	SER	L	166	-111.911	138.326	273.337	1	67.58	L	O
ATOM	4309	N	VAL	L	167	-111.046	136.908	274.855	1	70.15	L	N
ATOM	4310	CA	VAL	L	167	-109.99	137.804	275.342	1	66.01	L	C
ATOM	4311	CB	VAL	L	167	-109.786	137.703	276.858	1	68.55		C
ATOM	4312	CG1	VAL	L	167	-108.885	138.832	277.356	1	69.7		C
ATOM	4313	CG2	VAL	L	167	-111.117	137.759	277.613	1	71.23		C
ATOM	4314	C	VAL	L	167	-108.661	137.482	274.692	1	64.09	L	C
ATOM	4315	O	VAL	L	167	-108.327	136.333	274.493	1	64.42	L	O
ATOM	4316	N	THR	L	168	-107.895	138.521	274.385	1	67.78	L	N
ATOM	4317	CA	THR	L	168	-106.535	138.364	273.858	1	68.55	L	C
ATOM	4318	CB	THR	L	168	-105.936	139.722	273.398	1	63.75	L	C

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ATOM	4319	OG1	THR	L	168	-105.951	140.665	274.48	1	74.32	L	O
ATOM	4320	CG2	THR	L	168	-106.726	140.308	272.303	1	62.05	L	C
ATOM	4321	C	THR	L	168	-105.612	137.777	274.933	1	65.63	L	C
ATOM	4322	O	THR	L	168	-105.925	137.779	276.136	1	60.5	L	O
ATOM	4323	N	GLU	L	169	-104.458	137.284	274.512	1	67.94	L	N
ATOM	4324	CA	GLU	L	169	-103.413	136.961	275.49	1	69.37	L	C
ATOM	4325	CB	GLU	L	169	-102.435	135.892	274.98	1	72.76		C
ATOM	4326	CG	GLU	L	169	-103.011	134.468	275.094	1	76.19		C
ATOM	4327	CD	GLU	L	169	-103.04	133.916	276.528	1	77.7		C
ATOM	4328	OE1	GLU	L	169	-103.323	132.714	276.682	1	84.19		O
ATOM	4329	OE2	GLU	L	169	-102.793	134.658	277.51	1	77.43		O
ATOM	4330	C	GLU	L	169	-102.734	138.255	275.843	1	59.18	L	C
ATOM	4331	O	GLU	L	169	-102.674	139.15	275.005	1	59.32	L	O
ATOM	4332	N	GLN	L	170	-102.307	138.369	277.1	1	55.34	L	N
ATOM	4333	CA	GLN	L	170	-101.663	139.582	277.633	1	56.2	L	C
ATOM	4334	CB	GLN	L	170	-101.116	139.343	279.042	1	54.53	L	C
ATOM	4335	CG	GLN	L	170	-100.538	140.586	279.684	1	52.73	L	C
ATOM	4336	CD	GLN	L	170	-100.087	140.35	281.109	1	54.82	L	C
ATOM	4337	OE1	GLN	L	170	-99.399	139.348	281.422	1	47.19	L	O
ATOM	4338	NE2	GLN	L	170	-100.447	141.284	281.994	1	56.12	L	N
ATOM	4339	C	GLN	L	170	-100.508	140.015	276.745	1	58.48	L	C
ATOM	4340	O	GLN	L	170	-99.614	139.204	276.447	1	65.49	L	O
ATOM	4341	N	ASP	L	171	-100.507	141.277	276.335	1	55.04	L	N
ATOM	4342	CA	ASP	L	171	-99.578	141.698	275.302	1	63.07	L	C
ATOM	4343	CB	ASP	L	171	-99.986	143.075	274.732	1	65.49	L	C
ATOM	4344	CG	ASP	L	171	-98.923	143.693	273.822	1	67.78	L	C
ATOM	4345	OD1	ASP	L	171	-98.565	143.132	272.753	1	64.35	L	O
ATOM	4346	OD2	ASP	L	171	-98.414	144.756	274.203	1	74.25	L	O
ATOM	4347	C	ASP	L	171	-98.154	141.672	275.876	1	66.92	L	C
ATOM	4348	O	ASP	L	171	-97.91	142.134	276.997	1	77.75	L	O
ATOM	4349	N	SER	L	172	-97.225	141.117	275.108	1	62.38	L	N
ATOM	4350	CA	SER	L	172	-95.831	141.036	275.525	1	63.67	L	C
ATOM	4351	CB	SER	L	172	-95.083	140.134	274.551	1	67.25	L	C
ATOM	4352	OG	SER	L	172	-95.133	140.692	273.25	1	70.92	L	O
ATOM	4353	C	SER	L	172	-95.068	142.383	275.654	1	63.65	L	C
ATOM	4354	O	SER	L	172	-93.896	142.374	276.089	1	55.53	L	O
ATOM	4355	N	LYS	L	173	-95.704	143.504	275.265	1	66.21	L	N
ATOM	4356	CA	LYS	L	173	-95.12	144.867	275.342	1	68.39	L	C
ATOM	4357	CB	LYS	L	173	-95.008	145.503	273.955	1	69.19	L	C
ATOM	4358	CG	LYS	L	173	-93.748	145.134	273.175	1	72.82	L	C
ATOM	4359	CD	LYS	L	173	-93.947	143.937	272.257	1	76.82	L	C
ATOM	4360	CE	LYS	L	173	-92.638	143.489	271.601	1	80.83	L	C
ATOM	4361	NZ	LYS	L	173	-92.606	142.015	271.336	1	81.14	L	N
ATOM	4362	C	LYS	L	173	-95.859	145.81	276.304	1	68.68	L	C
ATOM	4363	O	LYS	L	173	-95.291	146.155	277.328	1	75.11	L	O

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ATOM	4364	N	ASP	L	174	-97.075	146.265	275.984	1	67.36	L	N
ATOM	4365	CA	ASP	L	174	-97.895	147.013	276.961	1	66.36	L	C
ATOM	4366	CB	ASP	L	174	-98.694	148.191	276.337	1	68.28	L	C
ATOM	4367	CG	ASP	L	174	-99.923	147.769	275.47	1	65.61	L	C
ATOM	4368	OD1	ASP	L	174	-99.811	146.961	274.534	1	58	L	O
ATOM	4369	OD2	ASP	L	174	-101.021	148.325	275.696	1	69.61	L	O
ATOM	4370	C	ASP	L	174	-98.76	145.967	277.587	1	73.58	L	C
ATOM	4371	O	ASP	L	174	-99.542	145.342	276.88	1	100.37	L	O
ATOM	4372	N	SER	L	175	-98.617	145.706	278.883	1	64.04	L	N
ATOM	4373	CA	SER	L	175	-99.135	144.434	279.429	1	57.96	L	C
ATOM	4374	CB	SER	L	175	-98.354	144.033	280.669	1	59.11	L	C
ATOM	4375	OG	SER	L	175	-96.967	144.063	280.383	1	60.53	L	O
ATOM	4376	C	SER	L	175	-100.644	144.438	279.685	1	53.53	L	C
ATOM	4377	O	SER	L	175	-101.08	144.219	280.811	1	50.46	L	O
ATOM	4378	N	THR	L	176	-101.408	144.632	278.6	1	49.02	L	N
ATOM	4379	CA	THR	L	176	-102.844	144.848	278.607	1	51.15	L	C
ATOM	4380	CB	THR	L	176	-103.221	146.143	277.869	1	51.92	L	C
ATOM	4381	OG1	THR	L	176	-102.737	146.068	276.521	1	50.9	L	O
ATOM	4382	CG2	THR	L	176	-102.695	147.399	278.566	1	51.62	L	C
ATOM	4383	C	THR	L	176	-103.576	143.776	277.812	1	59.35	L	C
ATOM	4384	O	THR	L	176	-102.985	143.061	277	1	63.87	L	O
ATOM	4385	N	TYR	L	177	-104.888	143.744	278.002	1	67.46	L	N
ATOM	4386	CA	TYR	L	177	-105.787	142.849	277.288	1	75.12	L	C
ATOM	4387	CB	TYR	L	177	-106.613	142.079	278.322	1	78.29	L	C
ATOM	4388	CG	TYR	L	177	-105.751	141.297	279.277	1	70.34	L	C
ATOM	4389	CD1	TYR	L	177	-105.278	140.052	278.92	1	69.25	L	C
ATOM	4390	CE1	TYR	L	177	-104.477	139.328	279.761	1	68.68	L	C
ATOM	4391	CZ	TYR	L	177	-104.12	139.843	280.979	1	67.52	L	C
ATOM	4392	OH	TYR	L	177	-103.315	139.057	281.782	1	65.74	L	O
ATOM	4393	CE2	TYR	L	177	-104.571	141.095	281.367	1	65.32	L	C
ATOM	4394	CD2	TYR	L	177	-105.382	141.815	280.513	1	64.55	L	C
ATOM	4395	C	TYR	L	177	-106.73	143.638	276.388	1	80.71	L	C
ATOM	4396	O	TYR	L	177	-107.038	144.808	276.659	1	80.4	L	O
ATOM	4397	N	SER	L	178	-107.186	142.988	275.324	1	83.04	L	N
ATOM	4398	CA	SER	L	178	-108.343	143.457	274.555	1	93.8	L	C
ATOM	4399	CB	SER	L	178	-107.934	143.77	273.122	1	94.62	L	C
ATOM	4400	OG	SER	L	178	-107.177	144.968	273.104	1	97.32	L	O
ATOM	4401	C	SER	L	178	-109.47	142.413	274.626	1	93.55	L	C
ATOM	4402	O	SER	L	178	-109.264	141.311	275.131	1	94.88	L	O
ATOM	4403	N	LEU	L	179	-110.658	142.756	274.133	1	92.99	L	N
ATOM	4404	CA	LEU	L	179	-111.837	141.914	274.333	1	84.4	L	C
ATOM	4405	CB	LEU	L	179	-112.332	142.089	275.765	1	79.66		C
ATOM	4406	CG	LEU	L	179	-113.633	141.375	276.129	1	78.1		C
ATOM	4407	CD1	LEU	L	179	-113.435	139.897	275.87	1	85.42		C
ATOM	4408	CD2	LEU	L	179	-114.029	141.622	277.571	1	72.36		C

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ATOM	4409	C	LEU	L	179	-113.002	142.192	273.389	1	84.79	L	C
ATOM	4410	O	LEU	L	179	-113.778	143.121	273.618	1	91.43	L	O
ATOM	4411	N	SER	L	180	-113.182	141.341	272.386	1	82.21	L	N
ATOM	4412	CA	SER	L	180	-114.377	141.385	271.559	1	79.85	L	C
ATOM	4413	CB	SER	L	180	-114.182	140.561	270.282	1	76.64	L	C
ATOM	4414	OG	SER	L	180	-114.214	139.166	270.526	1	75.88	L	O
ATOM	4415	C	SER	L	180	-115.555	140.848	272.389	1	83.29	L	C
ATOM	4416	O	SER	L	180	-115.362	140.069	273.323	1	78.68	L	O
ATOM	4417	N	SER	L	181	-116.766	141.295	272.068	1	90.48	L	N
ATOM	4418	CA	SER	L	181	-117.99	140.728	272.665	1	89.99	L	C
ATOM	4419	CB	SER	L	181	-118.515	141.654	273.758	1	84.14	L	C
ATOM	4420	OG	SER	L	181	-119.419	140.958	274.585	1	81.79	L	O
ATOM	4421	C	SER	L	181	-119.078	140.419	271.617	1	88.18	L	C
ATOM	4422	O	SER	L	181	-120.258	140.652	271.868	1	91.03	L	O
ATOM	4423	N	THR	L	182	-118.642	139.855	270.479	1	87.57	L	N
ATOM	4424	CA	THR	L	182	-119.449	139.514	269.281	1	82.07	L	C
ATOM	4425	CB	THR	L	182	-118.768	138.342	268.537	1	88.81	L	C
ATOM	4426	OG1	THR	L	182	-117.433	138.713	268.17	1	89.97	L	O
ATOM	4427	CG2	THR	L	182	-119.547	137.913	267.276	1	93.61	L	C
ATOM	4428	C	THR	L	182	-120.899	139.084	269.506	1	81.02	L	C
ATOM	4429	O	THR	L	182	-121.134	138.061	270.132	1	93.45	L	O
ATOM	4430	N	LEU	L	183	-121.854	139.839	268.954	1	84.31	L	N
ATOM	4431	CA	LEU	L	183	-123.3	139.501	269.005	1	93.77	L	C
ATOM	4432	CB	LEU	L	183	-124.082	140.638	269.665	1	97.41	L	C
ATOM	4433	CG	LEU	L	183	-125.614	140.63	269.638	1	91.61	L	C
ATOM	4434	CD1	LEU	L	183	-126.17	139.238	269.891	1	89.21	L	C
ATOM	4435	CD2	LEU	L	183	-126.127	141.636	270.666	1	90.2	L	C
ATOM	4436	C	LEU	L	183	-123.899	139.17	267.618	1	95.41	L	C
ATOM	4437	O	LEU	L	183	-124.128	140.06	266.796	1	77.68	L	O
ATOM	4438	N	THR	L	184	-124.171	137.885	267.399	1	103.31	L	N
ATOM	4439	CA	THR	L	184	-124.603	137.354	266.106	1	113.1	L	C
ATOM	4440	CB	THR	L	184	-123.948	135.968	265.876	1	115.45	L	C
ATOM	4441	OG1	THR	L	184	-122.521	136.124	265.813	1	112.85	L	O
ATOM	4442	CG2	THR	L	184	-124.449	135.291	264.587	1	117.38	L	C
ATOM	4443	C	THR	L	184	-126.127	137.241	266.075	1	117.03	L	C
ATOM	4444	O	THR	L	184	-126.726	136.887	267.085	1	113.55	L	O
ATOM	4445	N	LEU	L	185	-126.743	137.536	264.923	1	118.66	L	N
ATOM	4446	CA	LEU	L	185	-128.21	137.509	264.793	1	121.13	L	C
ATOM	4447	CB	LEU	L	185	-128.824	138.791	265.401	1	115.61	L	C
ATOM	4448	CG	LEU	L	185	-129.328	138.682	266.853	1	109.74	L	C
ATOM	4449	CD1	LEU	L	185	-129.614	140.053	267.431	1	105.11	L	C
ATOM	4450	CD2	LEU	L	185	-130.562	137.794	266.956	1	111.42	L	C
ATOM	4451	C	LEU	L	185	-128.732	137.274	263.364	1	130.25	L	C
ATOM	4452	O	LEU	L	185	-127.967	137.245	262.395	1	132.18	L	O
ATOM	4453	N	SER	L	186	-130.051	137.084	263.278	1	145.26	L	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4454	CA	SER	L	186	-130.78	136.867	262.017	1	146.74	L	C
ATOM	4455	CB	SER	L	186	-132.078	136.093	262.312	1	142.13	L	C
ATOM	4456	OG	SER	L	186	-132.9	136.794	263.237	1	130.55		O
ATOM	4457	C	SER	L	186	-131.093	138.199	261.313	1	148.36	L	C
ATOM	4458	O	SER	L	186	-130.672	139.268	261.769	1	154.96	L	O
ATOM	4459	N	LYS	L	187	-131.822	138.131	260.2	1	145.79	L	N
ATOM	4460	CA	LYS	L	187	-132.246	139.334	259.479	1	140	L	C
ATOM	4461	CB	LYS	L	187	-132.68	138.987	258.046	1	138.21	L	C
ATOM	4462	CG	LYS	L	187	-132.307	140.047	257.031	1	136.34	L	C
ATOM	4463	CD	LYS	L	187	-132.847	139.724	255.651	1	133.17	L	C
ATOM	4464	CE	LYS	L	187	-132.577	140.879	254.699	1	134.79	L	C
ATOM	4465	NZ	LYS	L	187	-133.256	140.726	253.383	1	131.98	L	N
ATOM	4466	C	LYS	L	187	-133.373	140.066	260.226	1	137.64	L	C
ATOM	4467	O	LYS	L	187	-133.229	141.238	260.563	1	137.23	L	O
ATOM	4468	N	ALA	L	188	-134.464	139.353	260.517	1	139.59	L	N
ATOM	4469	CA	ALA	L	188	-135.71	139.955	261.04	1	140.34	L	C
ATOM	4470	CB	ALA	L	188	-136.907	139.118	260.598	1	137.75	L	C
ATOM	4471	C	ALA	L	188	-135.785	140.21	262.566	1	142.63	L	C
ATOM	4472	O	ALA	L	188	-136.546	141.083	263.003	1	139.05	L	O
ATOM	4473	N	ASP	L	189	-135.028	139.451	263.365	1	143.67	L	N
ATOM	4474	CA	ASP	L	189	-135.002	139.61	264.843	1	136.35	L	C
ATOM	4475	CB	ASP	L	189	-134.322	138.376	265.479	1	126.35		C
ATOM	4476	CG	ASP	L	189	-134.69	138.158	266.947	1	120.49		C
ATOM	4477	OD1	ASP	L	189	-135.401	138.985	267.553	1	114.96		O
ATOM	4478	OD2	ASP	L	189	-134.255	137.126	267.502	1	112.88		O
ATOM	4479	C	ASP	L	189	-134.264	140.923	265.21	1	133.03	L	C
ATOM	4480	O	ASP	L	189	-134.734	141.752	266.011	1	108.35	L	O
ATOM	4481	N	TYR	L	190	-133.091	141.06	264.6	1	138.81	L	N
ATOM	4482	CA	TYR	L	190	-132.336	142.309	264.479	1	150.1	L	C
ATOM	4483	CB	TYR	L	190	-131.249	142.068	263.406	1	161.24	L	C
ATOM	4484	CG	TYR	L	190	-130.492	143.257	262.848	1	161.43	L	C
ATOM	4485	CD1	TYR	L	190	-129.497	143.887	263.589	1	158.58	L	C
ATOM	4486	CE1	TYR	L	190	-128.788	144.962	263.069	1	159.53	L	C
ATOM	4487	CZ	TYR	L	190	-129.043	145.395	261.774	1	156.87	L	C
ATOM	4488	OH	TYR	L	190	-128.331	146.452	261.254	1	153.4	L	O
ATOM	4489	CE2	TYR	L	190	-130.003	144.764	261.003	1	157.34	L	C
ATOM	4490	CD2	TYR	L	190	-130.713	143.696	261.536	1	160.32	L	C
ATOM	4491	C	TYR	L	190	-133.225	143.512	264.127	1	150.54	L	C
ATOM	4492	O	TYR	L	190	-133.302	144.472	264.898	1	145.84	L	O
ATOM	4493	N	GLU	L	191	-133.933	143.412	262.999	1	155.22	L	N
ATOM	4494	CA	GLU	L	191	-134.606	144.569	262.352	1	151.34	L	C
ATOM	4495	CB	GLU	L	191	-135.105	144.21	260.929	1	150.29	L	C
ATOM	4496	CG	GLU	L	191	-134.073	144.431	259.82	1	146.88	L	C
ATOM	4497	CD	GLU	L	191	-134.552	145.353	258.708	1	148.94	L	C
ATOM	4498	OE1	GLU	L	191	-135.17	146.399	259.007	1	150.66	L	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4499	OE2	GLU	L	191	-134.285	145.045	257.528	1	155.52	L	O
ATOM	4500	C	GLU	L	191	-135.739	145.285	263.106	1	139.09	L	C
ATOM	4501	O	GLU	L	191	-136.023	146.439	262.797	1	129.93	L	O
ATOM	4502	N	LYS	L	192	-136.383	144.641	264.077	1	135.55	L	N
ATOM	4503	CA	LYS	L	192	-137.477	145.306	264.806	1	131.12	L	C
ATOM	4504	CB	LYS	L	192	-138.603	144.311	265.149	1	133.04		C
ATOM	4505	CG	LYS	L	192	-138.397	143.381	266.347	1	123.65		C
ATOM	4506	CD	LYS	L	192	-139.468	142.289	266.408	1	118		C
ATOM	4507	CE	LYS	L	192	-140.896	142.81	266.226	1	109.26		C
ATOM	4508	NZ	LYS	L	192	-141.935	141.766	266.432	1	102.41		N
ATOM	4509	C	LYS	L	192	-137.034	146.107	266.044	1	130.1	L	C
ATOM	4510	O	LYS	L	192	-137.869	146.408	266.907	1	118.77	L	O
ATOM	4511	N	HIS	L	193	-135.743	146.461	266.12	1	132.02	L	N
ATOM	4512	CA	HIS	L	193	-135.195	147.281	267.212	1	131.7	L	C
ATOM	4513	CB	HIS	L	193	-134.478	146.384	268.227	1	141.04	L	C
ATOM	4514	CG	HIS	L	193	-135.368	145.365	268.885	1	145.95	L	C
ATOM	4515	ND1	HIS	L	193	-135.999	145.587	270.093	1	144.51	L	N
ATOM	4516	CE1	HIS	L	193	-136.706	144.52	270.425	1	138.45	L	C
ATOM	4517	NE2	HIS	L	193	-136.555	143.612	269.477	1	143.76	L	N
ATOM	4518	CD2	HIS	L	193	-135.721	144.112	268.505	1	146	L	C
ATOM	4519	C	HIS	L	193	-134.244	148.366	266.66	1	124.15	L	C
ATOM	4520	O	HIS	L	193	-133.763	148.252	265.525	1	105.32	L	O
ATOM	4521	N	LYS	L	194	-133.981	149.405	267.463	1	122.46	L	N
ATOM	4522	CA	LYS	L	194	-133.227	150.602	267.007	1	131.66	L	C
ATOM	4523	CB	LYS	L	194	-134.178	151.814	266.884	1	133.38		C
ATOM	4524	CG	LYS	L	194	-134.601	152.121	265.448	1	128.28		C
ATOM	4525	CD	LYS	L	194	-135.92	152.878	265.357	1	119.81		C
ATOM	4526	CE	LYS	L	194	-136.356	153.039	263.905	1	112.49		C
ATOM	4527	NZ	LYS	L	194	-137.827	152.914	263.73	1	105.16		N
ATOM	4528	C	LYS	L	194	-131.967	150.984	267.827	1	130.11	L	C
ATOM	4529	O	LYS	L	194	-130.852	150.935	267.289	1	124.05	L	O
ATOM	4530	N	VAL	L	195	-132.144	151.349	269.103	1	118.03	L	N
ATOM	4531	CA	VAL	L	195	-131.059	151.929	269.933	1	115.89	L	C
ATOM	4532	CB	VAL	L	195	-131.63	152.834	271.07	1	115.42		C
ATOM	4533	CG1	VAL	L	195	-130.529	153.671	271.712	1	115.66		C
ATOM	4534	CG2	VAL	L	195	-132.719	153.77	270.56	1	121.05		C
ATOM	4535	C	VAL	L	195	-130.102	150.854	270.527	1	124.4	L	C
ATOM	4536	O	VAL	L	195	-130.105	150.601	271.744	1	113.97	L	O
ATOM	4537	N	TYR	L	196	-129.28	150.241	269.662	1	128.78	L	N
ATOM	4538	CA	TYR	L	196	-128.276	149.219	270.059	1	125.95	L	C
ATOM	4539	CB	TYR	L	196	-127.627	148.583	268.812	1	123.38	L	C
ATOM	4540	CG	TYR	L	196	-128.518	147.73	267.911	1	132.27	L	C
ATOM	4541	CD1	TYR	L	196	-129.391	146.776	268.438	1	137.27	L	C
ATOM	4542	CE1	TYR	L	196	-130.182	145.983	267.605	1	135.99	L	C
ATOM	4543	CZ	TYR	L	196	-130.09	146.12	266.222	1	132.14	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4544	OH	TYR	L	196	-130.87	145.341	265.401	1	115.56	L	O
ATOM	4545	CE2	TYR	L	196	-129.224	147.049	265.675	1	131.68	L	C
ATOM	4546	CD2	TYR	L	196	-128.442	147.836	266.515	1	135.49	L	C
ATOM	4547	C	TYR	L	196	-127.146	149.833	270.916	1	125.15	L	C
ATOM	4548	O	TYR	L	196	-126.511	150.781	270.469	1	133.8	L	O
ATOM	4549	N	ALA	L	197	-126.883	149.284	272.111	1	122.91	L	N
ATOM	4550	CA	ALA	L	197	-125.885	149.841	273.075	1	124.87	L	C
ATOM	4551	CB	ALA	L	197	-126.594	150.401	274.306	1	115.83	L	C
ATOM	4552	C	ALA	L	197	-124.805	148.816	273.49	1	126.6	L	C
ATOM	4553	O	ALA	L	197	-124.775	147.718	272.943	1	130.74	L	O
ATOM	4554	N	CYS	L	198	-123.905	149.191	274.413	1	121.92	L	N
ATOM	4555	CA	CYS	L	198	-122.883	148.263	274.961	1	111.45	L	C
ATOM	4556	CB	CYS	L	198	-121.804	147.94	273.91	1	111.75	L	C
ATOM	4557	SG	CYS	L	198	-120.487	146.856	274.527	1	129.83	L	S
ATOM	4558	C	CYS	L	198	-122.22	148.817	276.236	1	102.8	L	C
ATOM	4559	O	CYS	L	198	-121.31	149.65	276.155	1	98	L	O
ATOM	4560	N	GLU	L	199	-122.652	148.329	277.4	1	97.12	L	N
ATOM	4561	CA	GLU	L	199	-122.249	148.908	278.7	1	101	L	C
ATOM	4562	CB	GLU	L	199	-123.458	148.926	279.654	1	100.53	L	C
ATOM	4563	CG	GLU	L	199	-123.411	149.993	280.752	1	102.95	L	C
ATOM	4564	CD	GLU	L	199	-124.787	150.574	281.095	1	101.53	L	C
ATOM	4565	OE1	GLU	L	199	-125.49	151.009	280.163	1	96.87	L	O
ATOM	4566	OE2	GLU	L	199	-125.166	150.618	282.293	1	98.13	L	O
ATOM	4567	C	GLU	L	199	-121.03	148.199	279.342	1	104.04	L	C
ATOM	4568	O	GLU	L	199	-121.175	147.118	279.931	1	117.03	L	O
ATOM	4569	N	VAL	L	200	-119.849	148.832	279.232	1	89.61	L	N
ATOM	4570	CA	VAL	L	200	-118.563	148.272	279.68	1	77.81	L	C
ATOM	4571	CB	VAL	L	200	-117.417	148.734	278.764	1	67.54	L	C
ATOM	4572	C	VAL	L	200	-118.227	148.718	281.091	1	79.94	L	C
ATOM	4573	O	VAL	L	200	-118.28	149.909	281.361	1	94.15	L	O
ATOM	4574	N	THR	L	201	-117.869	147.788	281.984	1	85.11	L	N
ATOM	4575	CA	THR	L	201	-117.626	148.132	283.41	1	90.4	L	C
ATOM	4576	CB	THR	L	201	-118.785	147.675	284.321	1	91.54	L	C
ATOM	4577	OG1	THR	L	201	-120.035	148.018	283.707	1	94.79	L	O
ATOM	4578	CG2	THR	L	201	-118.676	148.321	285.725	1	89.05	L	C
ATOM	4579	C	THR	L	201	-116.318	147.577	283.962	1	93.61	L	C
ATOM	4580	O	THR	L	201	-116.3	146.572	284.677	1	107.53	L	O
ATOM	4581	N	HIS	L	202	-115.23	148.264	283.623	1	91.3	L	N
ATOM	4582	CA	HIS	L	202	-113.886	148.003	284.158	1	82.12	L	C
ATOM	4583	CB	HIS	L	202	-112.85	148.401	283.083	1	83.23	L	C
ATOM	4584	CG	HIS	L	202	-111.517	147.729	283.216	1	82.24	L	C
ATOM	4585	ND1	HIS	L	202	-110.54	148.186	284.068	1	81.87	L	N
ATOM	4586	CE1	HIS	L	202	-109.475	147.42	283.976	1	77.76	L	C
ATOM	4587	NE2	HIS	L	202	-109.709	146.489	283.074	1	80.21	L	N
ATOM	4588	CD2	HIS	L	202	-110.981	146.661	282.578	1	85.33	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4589	C	HIS	L	202	-113.764	148.85	285.431	1	74.49	L	C
ATOM	4590	O	HIS	L	202	-114.676	149.609	285.742	1	76.46	L	O
ATOM	4591	N	GLN	L	203	-112.683	148.708	286.19	1	74.07	L	N
ATOM	4592	CA	GLN	L	203	-112.402	149.639	287.307	1	79.23	L	C
ATOM	4593	CB	GLN	L	203	-111.844	148.877	288.505	1	80.79		C
ATOM	4594	CG	GLN	L	203	-110.374	148.546	288.419	1	78.29		C
ATOM	4595	CD	GLN	L	203	-110	147.42	289.353	1	85.75		C
ATOM	4596	OE1	GLN	L	203	-110.607	146.346	289.307	1	81.13		O
ATOM	4597	NE2	GLN	L	203	-108.989	147.648	290.204	1	87.36		N
ATOM	4598	C	GLN	L	203	-111.475	150.818	286.977	1	79.04	L	C
ATOM	4599	O	GLN	L	203	-111.069	151.565	287.879	1	74.21	L	O
ATOM	4600	N	GLY	L	204	-111.166	150.998	285.697	1	82.25	L	N
ATOM	4601	CA	GLY	L	204	-110.27	152.05	285.233	1	85.63	L	C
ATOM	4602	C	GLY	L	204	-111.124	153.266	284.954	1	90.19	L	C
ATOM	4603	O	GLY	L	204	-110.744	154.393	285.301	1	91.82	L	O
ATOM	4604	N	LEU	L	205	-112.25	153.022	284.268	1	91.21	L	N
ATOM	4605	CA	LEU	L	205	-113.393	153.947	284.221	1	85.63	L	C
ATOM	4606	CB	LEU	L	205	-114.178	153.821	282.893	1	77.19	L	C
ATOM	4607	CG	LEU	L	205	-114.527	152.48	282.24	1	65.86		C
ATOM	4608	C	LEU	L	205	-114.284	153.701	285.443	1	86.57	L	C
ATOM	4609	O	LEU	L	205	-114.547	152.551	285.789	1	82.04	L	O
ATOM	4610	N	SER	L	206	-114.705	154.783	286.106	1	99.48	L	N
ATOM	4611	CA	SER	L	206	-115.593	154.716	287.296	1	107.28	L	C
ATOM	4612	CB	SER	L	206	-115.215	155.815	288.296	1	104.97	L	C
ATOM	4613	OG	SER	L	206	-115.666	155.488	289.601	1	101.3		O
ATOM	4614	C	SER	L	206	-117.102	154.805	286.936	1	106.03	L	C
ATOM	4615	O	SER	L	206	-117.954	154.208	287.604	1	98.61	L	O
ATOM	4616	N	SER	L	207	-117.408	155.571	285.892	1	105.71	L	N
ATOM	4617	CA	SER	L	207	-118.715	155.554	285.238	1	111.91	L	C
ATOM	4618	CB	SER	L	207	-118.937	156.898	284.524	1	114.83	L	C
ATOM	4619	OG	SER	L	207	-120.165	156.915	283.814	1	120.42	L	O
ATOM	4620	C	SER	L	207	-118.769	154.41	284.206	1	106.42	L	C
ATOM	4621	O	SER	L	207	-117.982	154.408	283.263	1	109.57	L	O
ATOM	4622	N	PRO	L	208	-119.69	153.438	284.365	1	101.71	L	N
ATOM	4623	CA	PRO	L	208	-119.82	152.396	283.321	1	103.76	L	C
ATOM	4624	CB	PRO	L	208	-121.005	151.543	283.811	1	99.33	L	C
ATOM	4625	CG	PRO	L	208	-121.098	151.798	285.273	1	100.25	L	C
ATOM	4626	CD	PRO	L	208	-120.58	153.188	285.513	1	101.42	L	C
ATOM	4627	C	PRO	L	208	-120.091	152.968	281.906	1	103.97	L	C
ATOM	4628	O	PRO	L	208	-121.177	153.511	281.647	1	120.02	L	O
ATOM	4629	N	VAL	L	209	-119.107	152.855	281.013	1	85.41	L	N
ATOM	4630	CA	VAL	L	209	-119.182	153.491	279.692	1	84.11	L	C
ATOM	4631	CB	VAL	L	209	-117.776	153.648	279.051	1	84.24		C
ATOM	4632	CG1	VAL	L	209	-117.842	154.008	277.554	1	77.22		C
ATOM	4633	CG2	VAL	L	209	-116.968	154.681	279.836	1	78.81		C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4634	C	VAL	L	209	-120.1	152.736	278.743	1	89.37	L	C
ATOM	4635	O	VAL	L	209	-119.732	151.667	278.251	1	98.24	L	O
ATOM	4636	N	THR	L	210	-121.283	153.305	278.487	1	96.19	L	N
ATOM	4637	CA	THR	L	210	-122.17	152.844	277.405	1	99.11	L	C
ATOM	4638	CB	THR	L	210	-123.651	153.113	277.729	1	97.02	L	C
ATOM	4639	OG1	THR	L	210	-124.465	152.393	276.792	1	108.56		O
ATOM	4640	C	THR	L	210	-121.819	153.546	276.089	1	90.54	L	C
ATOM	4641	O	THR	L	210	-121.59	154.754	276.096	1	94.76	L	O
ATOM	4642	N	LYS	L	211	-121.775	152.8	274.981	1	82.93	L	N
ATOM	4643	CA	LYS	L	211	-121.472	153.366	273.65	1	91.18	L	C
ATOM	4644	CB	LYS	L	211	-119.996	153.176	273.274	1	92.87	L	C
ATOM	4645	CG	LYS	L	211	-119.021	153.957	274.159	1	98.47	L	C
ATOM	4646	CD	LYS	L	211	-117.959	154.732	273.367	1	99.99	L	C
ATOM	4647	CE	LYS	L	211	-117.079	155.591	274.277	1	95.32	L	C
ATOM	4648	NZ	LYS	L	211	-116.748	156.909	273.671	1	94.13	L	N
ATOM	4649	C	LYS	L	211	-122.376	152.767	272.565	1	99.03	L	C
ATOM	4650	O	LYS	L	211	-122.16	151.642	272.116	1	91.92	L	O
ATOM	4651	N	SER	L	212	-123.364	153.554	272.13	1	107.83	L	N
ATOM	4652	CA	SER	L	212	-124.507	153.065	271.345	1	111.16	L	C
ATOM	4653	CB	SER	L	212	-125.817	153.357	272.116	1	116.52	L	C
ATOM	4654	OG	SER	L	212	-125.929	154.722	272.496	1	116.17	L	O
ATOM	4655	C	SER	L	212	-124.575	153.646	269.927	1	108.06	L	C
ATOM	4656	O	SER	L	212	-123.75	154.467	269.534	1	118.38	L	O
ATOM	4657	N	PHE	L	213	-125.553	153.183	269.159	1	107.34	L	N
ATOM	4658	CA	PHE	L	213	-125.836	153.727	267.84	1	119.22	L	C
ATOM	4659	CB	PHE	L	213	-124.846	153.149	266.831	1	126.96	L	C
ATOM	4660	CG	PHE	L	213	-125.012	151.682	266.6	1	131.43	L	C
ATOM	4661	CD1	PHE	L	213	-124.449	150.761	267.477	1	136.21	L	C
ATOM	4662	CE1	PHE	L	213	-124.599	149.398	267.267	1	141.49	L	C
ATOM	4663	CZ	PHE	L	213	-125.32	148.947	266.171	1	142.92	L	C
ATOM	4664	CE2	PHE	L	213	-125.892	149.861	265.293	1	135.63	L	C
ATOM	4665	CD2	PHE	L	213	-125.735	151.217	265.507	1	133.22	L	C
ATOM	4666	C	PHE	L	213	-127.287	153.418	267.438	1	125.37	L	C
ATOM	4667	O	PHE	L	213	-128.04	152.845	268.236	1	128.23	L	O
ATOM	4668	N	ASN	L	214	-127.674	153.804	266.216	1	126.48	L	N
ATOM	4669	CA	ASN	L	214	-129.042	153.608	265.719	1	121.82	L	C
ATOM	4670	CB	ASN	L	214	-129.822	154.92	265.822	1	118.5	L	C
ATOM	4671	CG	ASN	L	214	-130.128	155.304	267.26	1	115.59	L	C
ATOM	4672	OD1	ASN	L	214	-130.818	154.574	267.964	1	118.58	L	O
ATOM	4673	ND2	ASN	L	214	-129.617	156.449	267.703	1	112.04	L	N
ATOM	4674	C	ASN	L	214	-129.104	153.107	264.282	1	124.64	L	C
ATOM	4675	O	ASN	L	214	-128.234	153.417	263.466	1	120.33	L	O
ATOM	4676	N	ARG	L	215	-130.145	152.327	263.992	1	134.49	L	N
ATOM	4677	CA	ARG	L	215	-130.505	151.975	262.618	1	142.33	L	C
ATOM	4678	CB	ARG	L	215	-131.409	150.745	262.576	1	140.06	L	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4679	CG	ARG	L	215	-130.88	149.527	263.314	1	138.62	L	C
ATOM	4680	CD	ARG	L	215	-131.721	148.284	263.043	1	138.81	L	C
ATOM	4681	NE	ARG	L	215	-133.164	148.561	263.001	1	134.43	L	N
ATOM	4682	CZ	ARG	L	215	-133.944	148.552	261.912	1	132.54	L	C
ATOM	4683	NH1	ARG	L	215	-135.241	148.828	262.044	1	130.18	L	N
ATOM	4684	NH2	ARG	L	215	-133.471	148.263	260.696	1	131.25	L	N
ATOM	4685	C	ARG	L	215	-131.253	153.178	262.037	1	151.91	L	C
ATOM	4686	O	ARG	L	215	-132.165	153.721	262.685	1	153.35	L	O
ATOM	4687	N	GLY	L	216	-130.875	153.587	260.826	1	147.88	L	N
ATOM	4688	CA	GLY	L	216	-131.332	154.855	260.26	1	137	L	C
ATOM	4689	C	GLY	L	216	-130.641	156	260.977	1	134.02	L	C
ATOM	4690	O	GLY	L	216	-131.298	156.866	261.565	1	131.12	L	O
ATOM	4691	N	GLU	L	217	-129.308	155.964	260.959	1	127.17	L	N
ATOM	4692	CA	GLU	L	217	-128.463	157.041	261.486	1	130.41	L	C
ATOM	4693	CB	GLU	L	217	-128.008	156.724	262.926	1	129.12	L	C
ATOM	4694	CG	GLU	L	217	-126.906	157.61	263.53	1	126	L	C
ATOM	4695	CD	GLU	L	217	-127.332	159.048	263.799	1	123.39	L	C
ATOM	4696	OE1	GLU	L	217	-128.53	159.302	264.05	1	115.07	L	O
ATOM	4697	OE2	GLU	L	217	-126.45	159.933	263.78	1	122.83	L	O
ATOM	4698	C	GLU	L	217	-127.284	157.226	260.526	1	136.26	L	C
ATOM	4699	O	GLU	L	217	-127.248	158.199	259.765	1	137.28	L	O
ATOM	4700	N	CYS	L	218	-126.353	156.269	260.544	1	141.04	L	N
ATOM	4701	CA	CYS	L	218	-125.133	156.309	259.728	1	140.87	L	C
ATOM	4702	CB	CYS	L	218	-125.475	156.196	258.24	1	145.24	L	C
ATOM	4703	SG	CYS	L	218	-126.799	155.041	257.802	1	152.36	L	S
ATOM	4704	C	CYS	L	218	-124.284	157.568	260	1	134.76	L	C
ATOM	4705	O	CYS	L	218	-123.935	157.854	261.151	1	124.98	L	O
ATOM	4706	OXT	CYS	L	218	-123.924	158.332	259.097	1	117.09	L	O
TER	4707		CYS	L	218							
ATOM	4708	N	GLN	M	1	-44.46	127.099	321.546	1	72.47	D	N
ATOM	4709	CA	GLN	M	1	-45.472	128.218	321.586	1	70.35	D	C
ATOM	4710	CB	GLN	M	1	-45.208	129.094	322.809	1	68.62		C
ATOM	4711	C	GLN	M	1	-45.459	129.112	320.333	1	66.99	D	C
ATOM	4712	O	GLN	M	1	-44.409	129.339	319.735	1	73.28	D	O
ATOM	4713	N	VAL	M	2	-46.613	129.643	319.95	1	63.63	D	N
ATOM	4714	CA	VAL	M	2	-46.686	130.591	318.829	1	62.22	D	C
ATOM	4715	CB	VAL	M	2	-48.126	130.728	318.302	1	63.79	D	C
ATOM	4716	CG1	VAL	M	2	-48.246	131.845	317.271	1	63.49	D	C
ATOM	4717	CG2	VAL	M	2	-48.559	129.422	317.681	1	66.24	D	C
ATOM	4718	C	VAL	M	2	-46.189	131.949	319.304	1	57.83	D	C
ATOM	4719	O	VAL	M	2	-46.568	132.385	320.374	1	65.68	D	O
ATOM	4720	N	GLN	M	3	-45.367	132.626	318.519	1	52.99	D	N
ATOM	4721	CA	GLN	M	3	-44.843	133.931	318.927	1	55.2	D	C
ATOM	4722	CB	GLN	M	3	-43.69	133.715	319.908	1	62.64	D	C
ATOM	4723	CG	GLN	M	3	-43.057	134.963	320.525	1	65.49	D	C

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ATOM	4724	CD	GLN	M	3	-41.791	134.645	321.323	1	77.1	D	C
ATOM	4725	OE1	GLN	M	3	-41.297	133.503	321.337	1	75	D	O
ATOM	4726	NE2	GLN	M	3	-41.252	135.666	321.994	1	84.64	D	N
ATOM	4727	C	GLN	M	3	-44.337	134.748	317.732	1	55.09	D	C
ATOM	4728	O	GLN	M	3	-43.635	134.218	316.85	1	52.03	D	O
ATOM	4729	N	LEU	M	4	-44.674	136.035	317.719	1	52	D	N
ATOM	4730	CA	LEU	M	4	-44.169	136.944	316.7	1	56.73	D	C
ATOM	4731	CB	LEU	M	4	-45.313	137.701	316.047	1	61.89	D	C
ATOM	4732	CG	LEU	M	4	-46.345	136.826	315.35	1	61.33	D	C
ATOM	4733	CD1	LEU	M	4	-47.406	137.727	314.756	1	62.85	D	C
ATOM	4734	CD2	LEU	M	4	-45.696	135.983	314.271	1	63.75	D	C
ATOM	4735	C	LEU	M	4	-43.183	137.914	317.302	1	54.58	D	C
ATOM	4736	O	LEU	M	4	-43.554	138.837	318.004	1	61.66	D	O
ATOM	4737	N	GLN	M	5	-41.915	137.694	317.011	1	55.57	D	N
ATOM	4738	CA	GLN	M	5	-40.844	138.45	317.614	1	60.02	D	C
ATOM	4739	CB	GLN	M	5	-39.659	137.525	317.957	1	65.42	D	C
ATOM	4740	CG	GLN	M	5	-38.612	138.144	318.868	1	70.33	D	C
ATOM	4741	CD	GLN	M	5	-39.187	138.528	320.226	1	81.28	D	C
ATOM	4742	OE1	GLN	M	5	-40.12	137.877	320.722	1	86.74	D	O
ATOM	4743	NE2	GLN	M	5	-38.652	139.598	320.829	1	79.46	D	N
ATOM	4744	C	GLN	M	5	-40.46	139.47	316.58	1	56.66	D	C
ATOM	4745	O	GLN	M	5	-40.032	139.103	315.492	1	58.4	D	O
ATOM	4746	N	GLN	M	6	-40.642	140.743	316.884	1	55.43	D	N
ATOM	4747	CA	GLN	M	6	-40.368	141.767	315.886	1	58.65	D	C
ATOM	4748	CB	GLN	M	6	-41.676	142.449	315.418	1	55.96		C
ATOM	4749	CG	GLN	M	6	-42.14	143.705	316.105	1	54.26		C
ATOM	4750	CD	GLN	M	6	-43.545	144.114	315.636	1	57.28		C
ATOM	4751	OE1	GLN	M	6	-44.509	143.374	315.821	1	55.79		O
ATOM	4752	NE2	GLN	M	6	-43.664	145.298	315.043	1	57.57		N
ATOM	4753	C	GLN	M	6	-39.218	142.663	316.331	1	59.22	D	C
ATOM	4754	O	GLN	M	6	-38.72	142.543	317.445	1	52.78	D	O
ATOM	4755	N	SER	M	7	-38.739	143.489	315.407	1	68.22	D	N
ATOM	4756	CA	SER	M	7	-37.363	144.004	315.479	1	67.56	D	C
ATOM	4757	CB	SER	M	7	-36.839	144.407	314.079	1	62.64	D	C
ATOM	4758	OG	SER	M	7	-37.407	145.61	313.596	1	60.71	D	O
ATOM	4759	C	SER	M	7	-37.246	145.132	316.476	1	67.93	D	C
ATOM	4760	O	SER	M	7	-38.26	145.619	316.998	1	67	D	O
ATOM	4761	N	GLY	M	8	-36.007	145.536	316.747	1	73.65	D	N
ATOM	4762	CA	GLY	M	8	-35.737	146.552	317.77	1	75.3	D	C
ATOM	4763	C	GLY	M	8	-36.251	147.895	317.312	1	71.34	D	C
ATOM	4764	O	GLY	M	8	-36.591	148.029	316.13	1	68.82	D	O
ATOM	4765	N	PRO	M	9	-36.303	148.893	318.231	1	70.06	D	N
ATOM	4766	CA	PRO	M	9	-36.756	150.269	317.921	1	69.39	D	C
ATOM	4767	CB	PRO	M	9	-36.665	150.974	319.281	1	66.73	D	C
ATOM	4768	CG	PRO	M	9	-35.533	150.291	319.948	1	63.86	D	C

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ATOM	4769	CD	PRO	M	9	-35.672	148.836	319.563	1	65.07	D	C
ATOM	4770	C	PRO	M	9	-35.827	150.965	316.923	1	70.34	D	C
ATOM	4771	O	PRO	M	9	-34.679	150.53	316.755	1	72.89	D	O
ATOM	4772	N	ASP	M	10	-36.292	152.033	316.277	1	73.43	D	N
ATOM	4773	CA	ASP	M	10	-35.423	152.779	315.352	1	74.21	D	C
ATOM	4774	CB	ASP	M	10	-35.598	152.267	313.919	1	79.02		C
ATOM	4775	CG	ASP	M	10	-34.338	151.589	313.384	1	83.42		C
ATOM	4776	OD1	ASP	M	10	-33.281	152.279	313.338	1	87.34		O
ATOM	4777	OD2	ASP	M	10	-34.411	150.387	313.005	1	74.93		O
ATOM	4778	C	ASP	M	10	-35.534	154.305	315.396	1	76.46	D	C
ATOM	4779	O	ASP	M	10	-36.634	154.893	315.492	1	60.52	D	O
ATOM	4780	N	LEU	M	11	-34.352	154.919	315.306	1	85.09	D	N
ATOM	4781	CA	LEU	M	11	-34.173	156.357	315.388	1	91.68	D	C
ATOM	4782	CB	LEU	M	11	-33.369	156.695	316.639	1	101.78	D	C
ATOM	4783	CG	LEU	M	11	-33.351	158.168	317.058	1	112.42	D	C
ATOM	4784	CD1	LEU	M	11	-34.709	158.576	317.613	1	114.61	D	C
ATOM	4785	CD2	LEU	M	11	-32.245	158.411	318.078	1	117.69	D	C
ATOM	4786	C	LEU	M	11	-33.445	156.833	314.146	1	90.83	D	C
ATOM	4787	O	LEU	M	11	-32.404	157.477	314.237	1	98.5	D	O
ATOM	4788	N	VAL	M	12	-34	156.499	312.985	1	94.6	D	N
ATOM	4789	CA	VAL	M	12	-33.407	156.857	311.691	1	96.8	D	C
ATOM	4790	CB	VAL	M	12	-33.813	155.83	310.595	1	101.86	D	C
ATOM	4791	CG1	VAL	M	12	-35.27	156.008	310.163	1	100.14	D	C
ATOM	4792	CG2	VAL	M	12	-32.865	155.891	309.393	1	106	D	C
ATOM	4793	C	VAL	M	12	-33.777	158.31	311.319	1	93.76	D	C
ATOM	4794	O	VAL	M	12	-34.772	158.842	311.822	1	82.74	D	O
ATOM	4795	N	LYS	M	13	-32.954	158.945	310.473	1	93.51	D	N
ATOM	4796	CA	LYS	M	13	-33.184	160.333	310.013	1	96.8	D	C
ATOM	4797	CB	LYS	M	13	-31.872	160.984	309.567	1	97.87	D	C
ATOM	4798	CG	LYS	M	13	-30.854	161.197	310.675	1	102.71	D	C
ATOM	4799	CD	LYS	M	13	-29.481	161.52	310.095	1	101.43	D	C
ATOM	4800	CE	LYS	M	13	-28.414	161.65	311.178	1	99.6	D	C
ATOM	4801	NZ	LYS	M	13	-28.566	162.891	311.987	1	97.44	D	N
ATOM	4802	C	LYS	M	13	-34.157	160.383	308.832	1	94.33	D	C
ATOM	4803	O	LYS	M	13	-34.098	159.508	307.969	1	90.53	D	O
ATOM	4804	N	PRO	M	14	-35.033	161.417	308.77	1	98.89	D	N
ATOM	4805	CA	PRO	M	14	-35.887	161.552	307.591	1	97.46	D	C
ATOM	4806	CB	PRO	M	14	-36.974	162.523	308.061	1	96.76	D	C
ATOM	4807	CG	PRO	M	14	-36.283	163.407	309.046	1	96.87	D	C
ATOM	4808	CD	PRO	M	14	-35.123	162.619	309.627	1	101.16	D	C
ATOM	4809	C	PRO	M	14	-35.057	162.173	306.448	1	89.65	D	C
ATOM	4810	O	PRO	M	14	-34.259	163.058	306.725	1	73.73	D	O
ATOM	4811	N	GLY	M	15	-35.205	161.748	305.191	1	90.55	D	N
ATOM	4812	CA	GLY	M	15	-36.182	160.769	304.731	1	94.93	D	C
ATOM	4813	C	GLY	M	15	-35.458	159.568	304.177	1	99.37	D	C

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ATOM	4814	O	GLY	M	15	-35.579	159.259	302.998	1	110.6	D	O
ATOM	4815	N	ALA	M	16	-34.699	158.891	305.035	1	102.52	D	N
ATOM	4816	CA	ALA	M	16	-34.12	157.587	304.697	1	106.55	D	C
ATOM	4817	CB	ALA	M	16	-33.021	157.209	305.698	1	105.23	D	C
ATOM	4818	C	ALA	M	16	-35.234	156.511	304.637	1	105.62	D	C
ATOM	4819	O	ALA	M	16	-36.423	156.821	304.4	1	93.93	D	O
ATOM	4820	N	SER	M	17	-34.85	155.251	304.815	1	96.27	D	N
ATOM	4821	CA	SER	M	17	-35.81	154.171	304.832	1	96.02	D	C
ATOM	4822	CB	SER	M	17	-35.876	153.516	303.458	1	104.56	D	C
ATOM	4823	OG	SER	M	17	-34.582	153.128	303.034	1	119.55	D	O
ATOM	4824	C	SER	M	17	-35.381	153.175	305.888	1	91.4	D	C
ATOM	4825	O	SER	M	17	-34.179	152.996	306.113	1	88.69	D	O
ATOM	4826	N	VAL	M	18	-36.37	152.556	306.54	1	82.57	D	N
ATOM	4827	CA	VAL	M	18	-36.143	151.563	307.59	1	76.11	D	C
ATOM	4828	CB	VAL	M	18	-36.613	152.082	308.976	1	77.94		C
ATOM	4829	CG1	VAL	M	18	-38.125	152.046	309.135	1	79.81		C
ATOM	4830	CG2	VAL	M	18	-35.954	151.303	310.099	1	79.84		C
ATOM	4831	C	VAL	M	18	-36.863	150.289	307.206	1	73.06	D	C
ATOM	4832	O	VAL	M	18	-37.844	150.339	306.481	1	80.52	D	O
ATOM	4833	N	LYS	M	19	-36.352	149.158	307.685	1	76.13	D	N
ATOM	4834	CA	LYS	M	19	-36.926	147.831	307.448	1	70.34	D	C
ATOM	4835	CB	LYS	M	19	-35.924	146.978	306.661	1	70.63		C
ATOM	4836	CG	LYS	M	19	-36.494	145.723	306.002	1	76.34		C
ATOM	4837	CD	LYS	M	19	-35.933	145.536	304.589	1	79.13		C
ATOM	4838	CE	LYS	M	19	-36.313	144.213	303.937	1	84.56		C
ATOM	4839	NZ	LYS	M	19	-35.307	143.134	304.178	1	91.46		N
ATOM	4840	C	LYS	M	19	-37.236	147.206	308.81	1	67.56	D	C
ATOM	4841	O	LYS	M	19	-36.353	147.104	309.657	1	64.91	D	O
ATOM	4842	N	ILE	M	20	-38.493	146.817	309.02	1	66.35	D	N
ATOM	4843	CA	ILE	M	20	-38.944	146.158	310.252	1	59.68	D	C
ATOM	4844	CB	ILE	M	20	-40.347	146.656	310.642	1	62.13		C
ATOM	4845	CG1	ILE	M	20	-40.254	148.084	311.192	1	57.89		C
ATOM	4846	CD1	ILE	M	20	-41.583	148.719	311.529	1	54.01		C
ATOM	4847	CG2	ILE	M	20	-40.99	145.723	311.669	1	69.19		C
ATOM	4848	C	ILE	M	20	-39.022	144.65	310.06	1	59.71	D	C
ATOM	4849	O	ILE	M	20	-39.77	144.204	309.22	1	65.47	D	O
ATOM	4850	N	SER	M	21	-38.266	143.869	310.828	1	62.72	D	N
ATOM	4851	CA	SER	M	21	-38.499	142.411	310.909	1	66.15	D	C
ATOM	4852	CB	SER	M	21	-37.307	141.677	311.533	1	72.24	D	C
ATOM	4853	OG	SER	M	21	-36.101	142.363	311.284	1	91.48		O
ATOM	4854	C	SER	M	21	-39.75	142.065	311.737	1	60.94	D	C
ATOM	4855	O	SER	M	21	-40.182	142.839	312.587	1	53.09	D	O
ATOM	4856	N	CYS	M	22	-40.311	140.892	311.459	1	54.72	D	N
ATOM	4857	CA	CYS	M	22	-41.261	140.221	312.337	1	55.94	D	C
ATOM	4858	CB	CYS	M	22	-42.692	140.688	312.053	1	60.22	D	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4859	SG	CYS	M	22	-44.05	139.686	312.711	1	68.65	D	S
ATOM	4860	C	CYS	M	22	-41.06	138.733	312.068	1	56.75	D	C
ATOM	4861	O	CYS	M	22	-41.672	138.174	311.166	1	62.4	D	O
ATOM	4862	N	LYS	M	23	-40.142	138.114	312.811	1	57.4	D	N
ATOM	4863	CA	LYS	M	23	-39.885	136.683	312.687	1	60.64	D	C
ATOM	4864	CB	LYS	M	23	-38.447	136.298	313.079	1	68.23		C
ATOM	4865	CG	LYS	M	23	-38.243	135.486	314.363	1	75.63		C
ATOM	4866	CD	LYS	M	23	-37.183	134.398	314.183	1	84.77		C
ATOM	4867	CE	LYS	M	23	-37.715	133.195	313.399	1	89.72		C
ATOM	4868	NZ	LYS	M	23	-36.639	132.22	313.048	1	92.15		N
ATOM	4869	C	LYS	M	23	-40.92	136.001	313.543	1	58.02	D	C
ATOM	4870	O	LYS	M	23	-41.314	136.543	314.566	1	57.43	D	O
ATOM	4871	N	ALA	M	24	-41.32	134.807	313.12	1	55.34	D	N
ATOM	4872	CA	ALA	M	24	-42.499	134.128	313.613	1	57.1	D	C
ATOM	4873	CB	ALA	M	24	-43.574	134.14	312.546	1	66.56	D	C
ATOM	4874	C	ALA	M	24	-42.151	132.717	313.889	1	55.77	D	C
ATOM	4875	O	ALA	M	24	-41.528	132.064	313.064	1	67.01	D	O
ATOM	4876	N	SER	M	25	-42.605	132.216	315.015	1	55.73	D	N
ATOM	4877	CA	SER	M	25	-42.26	130.866	315.42	1	56.25	D	C
ATOM	4878	CB	SER	M	25	-41.121	130.894	316.441	1	56.94	D	C
ATOM	4879	OG	SER	M	25	-41.526	131.53	317.646	1	60.87		O
ATOM	4880	C	SER	M	25	-43.463	130.192	316.026	1	55.12	D	C
ATOM	4881	O	SER	M	25	-44.397	130.861	316.507	1	59.19	D	O
ATOM	4882	N	GLY	M	26	-43.42	128.866	315.998	1	50.92	D	N
ATOM	4883	CA	GLY	M	26	-44.412	128.018	316.63	1	49.36	D	C
ATOM	4884	C	GLY	M	26	-45.503	127.583	315.709	1	50.28	D	C
ATOM	4885	O	GLY	M	26	-46.441	126.958	316.166	1	59.34	D	O
ATOM	4886	N	TYR	M	27	-45.419	127.938	314.429	1	50.6	D	N
ATOM	4887	CA	TYR	M	27	-46.46	127.555	313.476	1	54.57	D	C
ATOM	4888	CB	TYR	M	27	-47.7	128.429	313.67	1	58.3	D	C
ATOM	4889	CG	TYR	M	27	-47.528	129.849	313.174	1	56.49	D	C
ATOM	4890	CD1	TYR	M	27	-46.884	130.785	313.943	1	55.5	D	C
ATOM	4891	CE1	TYR	M	27	-46.73	132.087	313.507	1	57.11	D	C
ATOM	4892	CZ	TYR	M	27	-47.224	132.461	312.284	1	57.72	D	C
ATOM	4893	OH	TYR	M	27	-47.042	133.758	311.878	1	61.36	D	O
ATOM	4894	CE2	TYR	M	27	-47.865	131.543	311.477	1	56	D	C
ATOM	4895	CD2	TYR	M	27	-48.021	130.246	311.927	1	56.26	D	C
ATOM	4896	C	TYR	M	27	-45.985	127.656	312.029	1	51.3	D	C
ATOM	4897	O	TYR	M	27	-44.92	128.188	311.749	1	54.14	D	O
ATOM	4898	N	THR	M	28	-46.796	127.163	311.117	1	46.22	D	N
ATOM	4899	CA	THR	M	28	-46.45	127.21	309.709	1	49.18	D	C
ATOM	4900	CB	THR	M	28	-47.244	126.126	308.961	1	53.01		C
ATOM	4901	OG1	THR	M	28	-47.174	124.887	309.707	1	54.53		O
ATOM	4902	CG2	THR	M	28	-46.721	125.968	307.542	1	49.61		C
ATOM	4903	C	THR	M	28	-46.711	128.594	309.087	1	49.2	D	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4904	O	THR	M	28	-47.762	128.844	308.506	1	56.97	D	O
ATOM	4905	N	PHE	M	29	-45.738	129.482	309.238	1	47.37	D	N
ATOM	4906	CA	PHE	M	29	-45.688	130.832	308.643	1	46.35	D	C
ATOM	4907	CB	PHE	M	29	-44.218	131.187	308.445	1	44.51		C
ATOM	4908	CG	PHE	M	29	-43.953	132.619	308.066	1	42.88		C
ATOM	4909	CD1	PHE	M	29	-44.494	133.677	308.795	1	41.5		C
ATOM	4910	CE1	PHE	M	29	-44.21	134.993	308.448	1	40.68		C
ATOM	4911	CZ	PHE	M	29	-43.343	135.261	307.392	1	41.03		C
ATOM	4912	CE2	PHE	M	29	-42.793	134.22	306.671	1	39.36		C
ATOM	4913	CD2	PHE	M	29	-43.091	132.908	307.015	1	40.23		C
ATOM	4914	C	PHE	M	29	-46.398	131.046	307.306	1	52.11	D	C
ATOM	4915	O	PHE	M	29	-47.163	131.987	307.144	1	71.92	D	O
ATOM	4916	N	THR	M	30	-46.15	130.164	306.365	1	51.69	D	N
ATOM	4917	CA	THR	M	30	-46.736	130.237	305.033	1	54.93	D	C
ATOM	4918	CB	THR	M	30	-46.074	129.181	304.135	1	54.89	D	C
ATOM	4919	OG1	THR	M	30	-46.143	127.905	304.79	1	58.56	D	O
ATOM	4920	CG2	THR	M	30	-44.634	129.536	303.874	1	55.24	D	C
ATOM	4921	C	THR	M	30	-48.258	129.987	304.95	1	57.6	D	C
ATOM	4922	O	THR	M	30	-48.86	130.224	303.891	1	59.4	D	O
ATOM	4923	N	SER	M	31	-48.873	129.497	306.029	1	54.63	D	N
ATOM	4924	CA	SER	M	31	-50.298	129.159	306.016	1	57.83	D	C
ATOM	4925	CB	SER	M	31	-50.514	127.904	306.839	1	58.42	D	C
ATOM	4926	OG	SER	M	31	-49.855	126.848	306.178	1	67.69	D	O
ATOM	4927	C	SER	M	31	-51.263	130.259	306.467	1	56.81	D	C
ATOM	4928	O	SER	M	31	-52.485	130.057	306.499	1	56.93	D	O
ATOM	4929	N	TYR	M	32	-50.735	131.421	306.816	1	55.76	D	N
ATOM	4930	CA	TYR	M	32	-51.576	132.458	307.383	1	54.76	D	C
ATOM	4931	CB	TYR	M	32	-51.605	132.384	308.91	1	52.58	D	C
ATOM	4932	CG	TYR	M	32	-51.948	131.052	309.458	1	49.32	D	C
ATOM	4933	CD1	TYR	M	32	-53.242	130.611	309.469	1	53.87	D	C
ATOM	4934	CE1	TYR	M	32	-53.56	129.357	309.979	1	61.15	D	C
ATOM	4935	CZ	TYR	M	32	-52.555	128.533	310.478	1	56.41	D	C
ATOM	4936	OH	TYR	M	32	-52.851	127.283	310.975	1	57.79	D	O
ATOM	4937	CE2	TYR	M	32	-51.252	128.965	310.462	1	54.35	D	C
ATOM	4938	CD2	TYR	M	32	-50.96	130.215	309.947	1	54.36	D	C
ATOM	4939	C	TYR	M	32	-51.067	133.81	307.005	1	49.44	D	C
ATOM	4940	O	TYR	M	32	-49.876	134.02	306.946	1	47.16	D	O
ATOM	4941	N	TRP	M	33	-52.006	134.727	306.823	1	50.07	D	N
ATOM	4942	CA	TRP	M	33	-51.716	136.1	306.48	1	47.79	D	C
ATOM	4943	CB	TRP	M	33	-53.004	136.822	306.124	1	48.51	D	C
ATOM	4944	CG	TRP	M	33	-53.587	136.473	304.844	1	46.2	D	C
ATOM	4945	CD1	TRP	M	33	-54.45	135.466	304.588	1	48.05	D	C
ATOM	4946	NE1	TRP	M	33	-54.81	135.473	303.28	1	48.29	D	N
ATOM	4947	CE2	TRP	M	33	-54.199	136.537	302.67	1	51.71	D	C
ATOM	4948	CD2	TRP	M	33	-53.419	137.18	303.637	1	50.82	D	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4949	CE3	TRP	M	33	-52.655	138.294	303.265	1	55.73	D	C
ATOM	4950	CZ3	TRP	M	33	-52.691	138.721	301.945	1	56.26	D	C
ATOM	4951	CH2	TRP	M	33	-53.475	138.058	301.001	1	55.6	D	C
ATOM	4952	CZ2	TRP	M	33	-54.245	136.969	301.345	1	54.6	D	C
ATOM	4953	C	TRP	M	33	-51.131	136.839	307.662	1	47.12	D	C
ATOM	4954	O	TRP	M	33	-51.572	136.679	308.79	1	46.21	D	O
ATOM	4955	N	VAL	M	34	-50.167	137.688	307.37	1	51.87	D	N
ATOM	4956	CA	VAL	M	34	-49.516	138.538	308.355	1	53.64	D	C
ATOM	4957	CB	VAL	M	34	-47.998	138.441	308.205	1	51.35		C
ATOM	4958	CG1	VAL	M	34	-47.284	139.448	309.109	1	51.87		C
ATOM	4959	CG2	VAL	M	34	-47.573	137.016	308.484	1	55.46		C
ATOM	4960	C	VAL	M	34	-49.939	139.988	308.114	1	53.28	D	C
ATOM	4961	O	VAL	M	34	-49.525	140.604	307.13	1	58.98	D	O
ATOM	4962	N	ASN	M	35	-50.737	140.526	309.019	1	45.42	D	N
ATOM	4963	CA	ASN	M	35	-51.201	141.882	308.907	1	45.78	D	C
ATOM	4964	CB	ASN	M	35	-52.598	141.983	309.481	1	46.37	D	C
ATOM	4965	CG	ASN	M	35	-53.624	141.239	308.641	1	45.91	D	C
ATOM	4966	OD1	ASN	M	35	-54.346	141.856	307.874	1	50.35	D	O
ATOM	4967	ND2	ASN	M	35	-53.695	139.92	308.783	1	44.99	D	N
ATOM	4968	C	ASN	M	35	-50.264	142.826	309.617	1	45.24	D	C
ATOM	4969	O	ASN	M	35	-49.536	142.397	310.468	1	53.55	D	O
ATOM	4970	N	TRP	M	36	-50.284	144.104	309.252	1	46.05	D	N
ATOM	4971	CA	TRP	M	36	-49.574	145.155	309.977	1	48.29	D	C
ATOM	4972	CB	TRP	M	36	-48.449	145.672	309.15	1	47.7	D	C
ATOM	4973	CG	TRP	M	36	-47.452	144.654	308.757	1	50.15	D	C
ATOM	4974	CD1	TRP	M	36	-47.582	143.715	307.796	1	50.09	D	C
ATOM	4975	NE1	TRP	M	36	-46.436	142.981	307.703	1	50.54	D	N
ATOM	4976	CE2	TRP	M	36	-45.53	143.452	308.615	1	47.19	D	C
ATOM	4977	CD2	TRP	M	36	-46.138	144.51	309.292	1	46.92	D	C
ATOM	4978	CE3	TRP	M	36	-45.423	145.178	310.281	1	45.95	D	C
ATOM	4979	CZ3	TRP	M	36	-44.15	144.752	310.57	1	49.89	D	C
ATOM	4980	CH2	TRP	M	36	-43.559	143.679	309.873	1	46.95	D	C
ATOM	4981	CZ2	TRP	M	36	-44.229	143.029	308.895	1	46.44	D	C
ATOM	4982	C	TRP	M	36	-50.437	146.371	310.314	1	55.91	D	C
ATOM	4983	O	TRP	M	36	-51.237	146.811	309.485	1	56.9	D	O
ATOM	4984	N	MET	M	37	-50.257	146.917	311.529	1	59.87	D	N
ATOM	4985	CA	MET	M	37	-50.854	148.208	311.912	1	56.86	D	C
ATOM	4986	CB	MET	M	37	-51.796	148.093	313.1	1	57.88		C
ATOM	4987	CG	MET	M	37	-52.221	146.695	313.478	1	64.85		C
ATOM	4988	SD	MET	M	37	-52.954	145.708	312.181	1	66.92		S
ATOM	4989	CE	MET	M	37	-52.011	144.213	312.477	1	75.73		C
ATOM	4990	C	MET	M	37	-49.782	149.249	312.222	1	56.05	D	C
ATOM	4991	O	MET	M	37	-48.618	148.92	312.437	1	55.57	D	O
ATOM	4992	N	LYS	M	38	-50.205	150.509	312.193	1	57.32	D	N
ATOM	4993	CA	LYS	M	38	-49.406	151.673	312.582	1	56.68	D	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	4994	CB	LYS	M	38	-49.354	152.7	311.434	1	63.37		C
ATOM	4995	CG	LYS	M	38	-48.99	154.148	311.791	1	67.18		C
ATOM	4996	CD	LYS	M	38	-48.127	154.809	310.722	1	71.09		C
ATOM	4997	CE	LYS	M	38	-48.252	156.32	310.655	1	74.93		C
ATOM	4998	NZ	LYS	M	38	-47.439	156.827	309.506	1	76.4		N
ATOM	4999	C	LYS	M	38	-50.159	152.23	313.747	1	51.71	D	C
ATOM	5000	O	LYS	M	38	-51.375	152.064	313.802	1	54.94	D	O
ATOM	5001	N	GLN	M	39	-49.446	152.845	314.686	1	55.43	D	N
ATOM	5002	CA	GLN	M	39	-50.051	153.504	315.865	1	59.73	D	C
ATOM	5003	CB	GLN	M	39	-50.197	152.525	317.041	1	58.57	D	C
ATOM	5004	CG	GLN	M	39	-50.854	153.109	318.285	1	57.74	D	C
ATOM	5005	CD	GLN	M	39	-51.135	152.057	319.366	1	58.81	D	C
ATOM	5006	OE1	GLN	M	39	-50.207	151.446	319.938	1	47.97	D	O
ATOM	5007	NE2	GLN	M	39	-52.426	151.859	319.674	1	59.22	D	N
ATOM	5008	C	GLN	M	39	-49.163	154.677	316.247	1	61.39	D	C
ATOM	5009	O	GLN	M	39	-48.069	154.497	316.757	1	56.39	D	O
ATOM	5010	N	ARG	M	40	-49.617	155.879	315.93	1	72.04	D	N
ATOM	5011	CA	ARG	M	40	-48.849	157.086	316.181	1	70.26	D	C
ATOM	5012	CB	ARG	M	40	-49.362	158.261	315.321	1	63.88	D	C
ATOM	5013	C	ARG	M	40	-49.063	157.316	317.665	1	76.7	D	C
ATOM	5014	O	ARG	M	40	-50.188	157.1	318.15	1	74.36	D	O
ATOM	5015	N	PRO	M	41	-47.987	157.695	318.41	1	92.6	D	N
ATOM	5016	CA	PRO	M	41	-48.163	157.981	319.839	1	89.95	D	C
ATOM	5017	CB	PRO	M	41	-46.822	158.611	320.257	1	90.71	D	C
ATOM	5018	CG	PRO	M	41	-46.072	158.888	318.995	1	87.68	D	C
ATOM	5019	CD	PRO	M	41	-46.581	157.901	317.997	1	93.89	D	C
ATOM	5020	C	PRO	M	41	-49.307	158.954	320.012	1	95.35	D	C
ATOM	5021	O	PRO	M	41	-49.447	159.896	319.229	1	114.58	D	O
ATOM	5022	N	GLY	M	42	-50.122	158.72	321.021	1	87.97	D	N
ATOM	5023	CA	GLY	M	42	-51.479	159.228	321.023	1	91.24	D	C
ATOM	5024	C	GLY	M	42	-52.241	157.944	320.911	1	102.82	D	C
ATOM	5025	O	GLY	M	42	-51.955	157.004	321.654	1	121.04	D	O
ATOM	5026	N	LYS	M	43	-53.161	157.847	319.961	1	111.07	D	N
ATOM	5027	CA	LYS	M	43	-53.944	156.61	319.835	1	106.69	D	C
ATOM	5028	CB	LYS	M	43	-55.066	156.527	320.915	1	104.13	D	C
ATOM	5029	CG	LYS	M	43	-55.442	157.827	321.643	1	107.37	D	C
ATOM	5030	CD	LYS	M	43	-54.917	157.882	323.082	1	100.96	D	C
ATOM	5031	CE	LYS	M	43	-54.861	159.304	323.626	1	92.73	D	C
ATOM	5032	NZ	LYS	M	43	-56.206	159.938	323.727	1	88.93	D	N
ATOM	5033	C	LYS	M	43	-54.501	156.366	318.437	1	96.34	D	C
ATOM	5034	O	LYS	M	43	-54.37	157.196	317.513	1	80.04	D	O
ATOM	5035	N	GLY	M	44	-55.099	155.187	318.308	1	85.69	D	N
ATOM	5036	CA	GLY	M	44	-55.75	154.777	317.092	1	83.63	D	C
ATOM	5037	C	GLY	M	44	-54.873	153.853	316.281	1	75.41	D	C
ATOM	5038	O	GLY	M	44	-53.745	154.2	315.897	1	78.6	D	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	5039	N	LEU	M	45	-55.412	152.675	316.018	1	70.99	D	N
ATOM	5040	CA	LEU	M	45	-54.824	151.727	315.088	1	70.93	D	C
ATOM	5041	CB	LEU	M	45	-55.277	150.308	315.47	1	71.99	D	C
ATOM	5042	CG	LEU	M	45	-54.886	149.848	316.888	1	73.24	D	C
ATOM	5043	CD1	LEU	M	45	-55.662	148.623	317.332	1	71.35	D	C
ATOM	5044	CD2	LEU	M	45	-53.389	149.586	316.973	1	76.84	D	C
ATOM	5045	C	LEU	M	45	-55.288	152.068	313.668	1	67.22	D	C
ATOM	5046	O	LEU	M	45	-56.467	152.3	313.453	1	66.51	D	O
ATOM	5047	N	GLU	M	46	-54.347	152.153	312.73	1	66.6	D	N
ATOM	5048	CA	GLU	M	46	-54.628	152.163	311.289	1	65.94	D	C
ATOM	5049	CB	GLU	M	46	-53.854	153.287	310.563	1	72.3	D	C
ATOM	5050	CG	GLU	M	46	-54.218	154.749	310.861	1	75.44	D	C
ATOM	5051	CD	GLU	M	46	-53.321	155.742	310.092	1	80.71	D	C
ATOM	5052	OE1	GLU	M	46	-52.529	156.489	310.729	1	72.46	D	O
ATOM	5053	OE2	GLU	M	46	-53.389	155.768	308.835	1	77.49	D	O
ATOM	5054	C	GLU	M	46	-54.133	150.826	310.73	1	61.23	D	C
ATOM	5055	O	GLU	M	46	-53.066	150.359	311.11	1	59.61	D	O
ATOM	5056	N	TRP	M	47	-54.868	150.233	309.799	1	59.48	D	N
ATOM	5057	CA	TRP	M	47	-54.377	149.063	309.061	1	60.93	D	C
ATOM	5058	CB	TRP	M	47	-55.562	148.284	308.531	1	62.86	D	C
ATOM	5059	CG	TRP	M	47	-55.263	146.957	307.936	1	67.27	D	C
ATOM	5060	CD1	TRP	M	47	-54.944	145.833	308.604	1	69.76	D	C
ATOM	5061	NE1	TRP	M	47	-54.779	144.786	307.734	1	71.52	D	N
ATOM	5062	CE2	TRP	M	47	-55.011	145.226	306.46	1	74.24	D	C
ATOM	5063	CD2	TRP	M	47	-55.333	146.596	306.547	1	72.39	D	C
ATOM	5064	CE3	TRP	M	47	-55.644	147.294	305.37	1	71.17	D	C
ATOM	5065	CZ3	TRP	M	47	-55.609	146.603	304.149	1	72.69	D	C
ATOM	5066	CH2	TRP	M	47	-55.285	145.227	304.101	1	68.77	D	C
ATOM	5067	CZ2	TRP	M	47	-54.985	144.528	305.239	1	71.43	D	C
ATOM	5068	C	TRP	M	47	-53.473	149.503	307.893	1	63.17	D	C
ATOM	5069	O	TRP	M	47	-53.898	150.301	307.058	1	62.99	D	O
ATOM	5070	N	ILE	M	48	-52.232	149.008	307.853	1	59.98	D	N
ATOM	5071	CA	ILE	M	48	-51.319	149.257	306.728	1	57.54	D	C
ATOM	5072	CB	ILE	M	48	-49.834	149.13	307.153	1	57.85		C
ATOM	5073	CG1	ILE	M	48	-49.447	150.295	308.078	1	59.93		C
ATOM	5074	CD1	ILE	M	48	-48.141	150.087	308.829	1	58.5		C
ATOM	5075	CG2	ILE	M	48	-48.892	149.084	305.941	1	50.73		C
ATOM	5076	C	ILE	M	48	-51.566	148.287	305.572	1	59.25	D	C
ATOM	5077	O	ILE	M	48	-51.508	148.689	304.406	1	60.18	D	O
ATOM	5078	N	GLY	M	49	-51.794	147.013	305.877	1	59.31	D	N
ATOM	5079	CA	GLY	M	49	-51.857	145.986	304.831	1	61.27	D	C
ATOM	5080	C	GLY	M	49	-51.539	144.571	305.309	1	63.14	D	C
ATOM	5081	O	GLY	M	49	-51.41	144.322	306.506	1	61.94	D	O
ATOM	5082	N	ARG	M	50	-51.42	143.631	304.381	1	54.93	D	N
ATOM	5083	CA	ARG	M	50	-51.167	142.264	304.779	1	53.93	D	C

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ATOM	5084	CB	ARG	M	50	-52.463	141.595	305.229	1	51.66		C
ATOM	5085	CG	ARG	M	50	-53.499	141.386	304.147	1	48.35		C
ATOM	5086	CD	ARG	M	50	-54.638	140.535	304.646	1	47.5		C
ATOM	5087	NE	ARG	M	50	-55.509	140.213	303.534	1	53.48		N
ATOM	5088	CZ	ARG	M	50	-56.297	139.148	303.436	1	60.28		C
ATOM	5089	NH1	ARG	M	50	-56.373	138.235	304.392	1	70.08		N
ATOM	5090	NH2	ARG	M	50	-57.01	138.983	302.342	1	66.79		N
ATOM	5091	C	ARG	M	50	-50.526	141.48	303.662	1	56.08	D	C
ATOM	5092	O	ARG	M	50	-50.57	141.91	302.527	1	57.59	D	O
ATOM	5093	N	ILE	M	51	-49.977	140.314	303.995	1	53.07	D	N
ATOM	5094	CA	ILE	M	51	-49.211	139.522	303.055	1	50.04	D	C
ATOM	5095	CB	ILE	M	51	-47.74	139.975	303.102	1	50.17	D	C
ATOM	5096	CG1	ILE	M	51	-46.881	139.277	302.031	1	54.08	D	C
ATOM	5097	CD1	ILE	M	51	-45.472	139.855	301.904	1	49.83	D	C
ATOM	5098	CG2	ILE	M	51	-47.141	139.737	304.475	1	52.49	D	C
ATOM	5099	C	ILE	M	51	-49.418	138.022	303.343	1	48.42	D	C
ATOM	5100	O	ILE	M	51	-49.378	137.592	304.466	1	50.32	D	O
ATOM	5101	N	TYR	M	52	-49.731	137.236	302.333	1	52.68		N
ATOM	5102	CA	TYR	M	52	-49.75	135.781	302.489	1	56.04		C
ATOM	5103	CB	TYR	M	52	-50.793	135.159	301.583	1	51.16		C
ATOM	5104	CG	TYR	M	52	-51.113	133.776	302.005	1	48.67		C
ATOM	5105	CD1	TYR	M	52	-52.063	133.582	302.973	1	53.22		C
ATOM	5106	CE1	TYR	M	52	-52.394	132.319	303.437	1	55.36		C
ATOM	5107	CZ	TYR	M	52	-51.786	131.222	302.906	1	54.51		C
ATOM	5108	OH	TYR	M	52	-52.219	130.033	303.44	1	51.81		O
ATOM	5109	CE2	TYR	M	52	-50.81	131.373	301.903	1	53.98		C
ATOM	5110	CD2	TYR	M	52	-50.469	132.66	301.467	1	49.67		C
ATOM	5111	C	TYR	M	52	-48.366	135.185	302.159	1	57.43		C
ATOM	5112	O	TYR	M	52	-48.019	135.042	300.993	1	63.26		O
ATOM	5113	N	PRO	M	53	-47.584	134.803	303.172	1	56.5	D	N
ATOM	5114	CA	PRO	M	53	-46.183	134.476	302.89	1	57.13	D	C
ATOM	5115	CB	PRO	M	53	-45.541	134.419	304.296	1	56.85		C
ATOM	5116	CG	PRO	M	53	-46.636	134.682	305.272	1	56.42		C
ATOM	5117	CD	PRO	M	53	-47.931	134.446	304.552	1	56.12		C
ATOM	5118	C	PRO	M	53	-45.933	133.16	302.15	1	56.22	D	C
ATOM	5119	O	PRO	M	53	-44.81	132.924	301.726	1	54.52	D	O
ATOM	5120	N	GLY	M	54	-46.948	132.301	302.042	1	61.04	D	N
ATOM	5121	CA	GLY	M	54	-46.861	131.097	301.22	1	63.68	D	C
ATOM	5122	C	GLY	M	54	-46.765	131.338	299.719	1	63.79	D	C
ATOM	5123	O	GLY	M	54	-46.349	130.449	298.994	1	73.51	D	O
ATOM	5124	N	ASP	M	55	-47.197	132.515	299.257	1	64.51	D	N
ATOM	5125	CA	ASP	M	55	-47.077	132.933	297.841	1	58.35	D	C
ATOM	5126	CB	ASP	M	55	-48.316	132.462	297.077	1	55.64		C
ATOM	5127	CG	ASP	M	55	-49.582	133.19	297.502	1	60.1		C
ATOM	5128	OD1	ASP	M	55	-49.489	134.408	297.804	1	56.21		O

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ATOM	5129	OD2	ASP	M	55	-50.67	132.544	297.531	1	59.87		O
ATOM	5130	C	ASP	M	55	-46.844	134.445	297.554	1	53.06	D	C
ATOM	5131	O	ASP	M	55	-46.825	134.842	296.402	1	59.1	D	O
ATOM	5132	N	GLY	M	56	-46.677	135.279	298.572	1	49	D	N
ATOM	5133	CA	GLY	M	56	-46.373	136.693	298.376	1	51.61	D	C
ATOM	5134	C	GLY	M	56	-47.542	137.628	298.122	1	54.71	D	C
ATOM	5135	O	GLY	M	56	-47.334	138.824	297.92	1	50.55	D	O
ATOM	5136	N	ASP	M	57	-48.767	137.108	298.159	1	58.25	D	N
ATOM	5137	CA	ASP	M	57	-49.943	137.912	297.833	1	64.05	D	C
ATOM	5138	CB	ASP	M	57	-51.191	136.988	297.7	1	68.58		C
ATOM	5139	CG	ASP	M	57	-52.439	137.687	297.1	1	74.52		C
ATOM	5140	OD1	ASP	M	57	-52.32	138.787	296.503	1	75.04		O
ATOM	5141	OD2	ASP	M	57	-53.557	137.106	297.231	1	68.93		O
ATOM	5142	C	ASP	M	57	-50.086	139.033	298.91	1	61.44	D	C
ATOM	5143	O	ASP	M	57	-50.127	138.762	300.095	1	62.25	D	O
ATOM	5144	N	THR	M	58	-50.117	140.283	298.457	1	57.98	D	N
ATOM	5145	CA	THR	M	58	-50.214	141.461	299.291	1	53	D	C
ATOM	5146	CB	THR	M	58	-49.404	142.614	298.694	1	57.69	D	C
ATOM	5147	OG1	THR	M	58	-50.091	143.116	297.532	1	64.3	D	O
ATOM	5148	CG2	THR	M	58	-47.956	142.187	298.326	1	58.85	D	C
ATOM	5149	C	THR	M	58	-51.637	141.992	299.317	1	57.58	D	C
ATOM	5150	O	THR	M	58	-52.494	141.523	298.594	1	68.24	D	O
ATOM	5151	N	ASN	M	59	-51.866	142.999	300.149	1	60.29	D	N
ATOM	5152	CA	ASN	M	59	-53.094	143.779	300.167	1	58.16	D	C
ATOM	5153	CB	ASN	M	59	-54.243	142.988	300.797	1	60.01		C
ATOM	5154	CG	ASN	M	59	-55.088	142.28	299.776	1	67.64		C
ATOM	5155	OD1	ASN	M	59	-55.428	142.85	298.733	1	78.13		O
ATOM	5156	ND2	ASN	M	59	-55.444	141.035	300.061	1	70.1		N
ATOM	5157	C	ASN	M	59	-52.841	145.049	300.963	1	58.49	D	C
ATOM	5158	O	ASN	M	59	-53.001	145.057	302.173	1	65.73	D	O
ATOM	5159	N	TYR	M	60	-52.406	146.107	300.288	1	56.35	D	N
ATOM	5160	CA	TYR	M	60	-52.116	147.391	300.93	1	55.1	D	C
ATOM	5161	CB	TYR	M	60	-51.016	148.131	300.181	1	56.25	D	C
ATOM	5162	CG	TYR	M	60	-49.726	147.393	299.996	1	57.18	D	C
ATOM	5163	CD1	TYR	M	60	-49.52	146.608	298.883	1	55.74	D	C
ATOM	5164	CE1	TYR	M	60	-48.33	145.958	298.68	1	61.16	D	C
ATOM	5165	CZ	TYR	M	60	-47.314	146.094	299.598	1	64.39	D	C
ATOM	5166	OH	TYR	M	60	-46.132	145.428	299.378	1	72.96	D	O
ATOM	5167	CE2	TYR	M	60	-47.483	146.881	300.72	1	62.37	D	C
ATOM	5168	CD2	TYR	M	60	-48.686	147.531	300.911	1	61.72	D	C
ATOM	5169	C	TYR	M	60	-53.322	148.339	300.977	1	53.5	D	C
ATOM	5170	O	TYR	M	60	-54.122	148.386	300.07	1	53.44	D	O
ATOM	5171	N	ASN	M	61	-53.405	149.116	302.048	1	58.13	D	N
ATOM	5172	CA	ASN	M	61	-54.219	150.313	302.098	1	56.47	D	C
ATOM	5173	CB	ASN	M	61	-54.221	150.856	303.516	1	53.41	D	C

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ATOM	5174	CG	ASN	M	61	-54.933	152.178	303.648	1	55.3	D	C
ATOM	5175	OD1	ASN	M	61	-55.142	152.916	302.679	1	63.38	D	O
ATOM	5176	ND2	ASN	M	61	-55.294	152.502	304.862	1	54.13	D	N
ATOM	5177	C	ASN	M	61	-53.596	151.322	301.133	1	61.93	D	C
ATOM	5178	O	ASN	M	61	-52.366	151.463	301.095	1	61.89	D	O
ATOM	5179	N	GLY	M	62	-54.451	152.009	300.363	1	62.5	D	N
ATOM	5180	CA	GLY	M	62	-54.023	153.023	299.394	1	62.8	D	C
ATOM	5181	C	GLY	M	62	-53.11	154.061	300.015	1	62.35	D	C
ATOM	5182	O	GLY	M	62	-52.047	154.425	299.448	1	55.98	D	O
ATOM	5183	N	LYS	M	63	-53.529	154.493	301.206	1	57.25	D	N
ATOM	5184	CA	LYS	M	63	-52.787	155.434	302.049	1	57.46	D	C
ATOM	5185	CB	LYS	M	63	-53.448	155.549	303.43	1	62.68		C
ATOM	5186	CG	LYS	M	63	-53.161	156.883	304.089	1	67.78		C
ATOM	5187	CD	LYS	M	63	-53.557	156.957	305.56	1	70.11		C
ATOM	5188	CE	LYS	M	63	-52.596	157.871	306.326	1	70.24		C
ATOM	5189	NZ	LYS	M	63	-53.249	158.537	307.475	1	72.98		N
ATOM	5190	C	LYS	M	63	-51.3	155.151	302.239	1	52.7	D	C
ATOM	5191	O	LYS	M	63	-50.555	156.092	302.381	1	56.33	D	O
ATOM	5192	N	PHE	M	64	-50.886	153.879	302.222	1	53.63	D	N
ATOM	5193	CA	PHE	M	64	-49.485	153.45	302.437	1	54.96	D	C
ATOM	5194	CB	PHE	M	64	-49.428	152.435	303.595	1	50.94		C
ATOM	5195	CG	PHE	M	64	-49.899	153.009	304.894	1	54.34		C
ATOM	5196	CD1	PHE	M	64	-49.019	153.723	305.711	1	57.48		C
ATOM	5197	CE1	PHE	M	64	-49.458	154.293	306.895	1	57.92		C
ATOM	5198	CZ	PHE	M	64	-50.801	154.175	307.259	1	59.18		C
ATOM	5199	CE2	PHE	M	64	-51.69	153.479	306.445	1	55.06		C
ATOM	5200	CD2	PHE	M	64	-51.241	152.911	305.269	1	54.47		C
ATOM	5201	C	PHE	M	64	-48.778	152.859	301.216	1	63.14	D	C
ATOM	5202	O	PHE	M	64	-47.599	152.419	301.32	1	55.5	D	O
ATOM	5203	N	LYS	M	65	-49.463	152.856	300.065	1	71.94	D	N
ATOM	5204	CA	LYS	M	65	-48.915	152.204	298.866	1	75.16	D	C
ATOM	5205	CB	LYS	M	65	-49.908	152.229	297.696	1	82.2	D	C
ATOM	5206	CG	LYS	M	65	-51.074	151.263	297.926	1	92.95	D	C
ATOM	5207	CD	LYS	M	65	-52.054	151.105	296.755	1	94.46	D	C
ATOM	5208	CE	LYS	M	65	-53.039	149.961	297.023	1	93.42	D	C
ATOM	5209	NZ	LYS	M	65	-54.421	150.24	296.541	1	90.56	D	N
ATOM	5210	C	LYS	M	65	-47.557	152.797	298.499	1	69.59	D	C
ATOM	5211	O	LYS	M	65	-46.591	152.059	298.288	1	65.17	D	O
ATOM	5212	N	GLY	M	66	-47.462	154.121	298.502	1	64.42	D	N
ATOM	5213	CA	GLY	M	66	-46.181	154.768	298.294	1	67.51	D	C
ATOM	5214	C	GLY	M	66	-45.202	154.417	299.397	1	73.66	D	C
ATOM	5215	O	GLY	M	66	-44.047	154.056	299.118	1	71.33	D	O
ATOM	5216	N	LYS	M	67	-45.701	154.485	300.641	1	75.68	D	N
ATOM	5217	CA	LYS	M	67	-44.896	154.368	301.87	1	68.67	D	C
ATOM	5218	CB	LYS	M	67	-45.752	154.766	303.071	1	71.04		C

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ATOM	5219	CG	LYS	M	67	-44.982	154.989	304.37	1	78.73		C
ATOM	5220	CD	LYS	M	67	-43.97	156.134	304.302	1	83.53		C
ATOM	5221	CE	LYS	M	67	-44.609	157.507	304.103	1	82.13		C
ATOM	5222	NZ	LYS	M	67	-43.544	158.544	304.001	1	86.78		N
ATOM	5223	C	LYS	M	67	-44.296	152.993	302.163	1	71.26	D	C
ATOM	5224	O	LYS	M	67	-43.087	152.89	302.46	1	63.89	D	O
ATOM	5225	N	ALA	M	68	-45.147	151.958	302.085	1	68.57	D	N
ATOM	5226	CA	ALA	M	68	-44.879	150.639	302.685	1	66.22	D	C
ATOM	5227	CB	ALA	M	68	-46.061	150.229	303.535	1	61.76	D	C
ATOM	5228	C	ALA	M	68	-44.603	149.549	301.67	1	67.41	D	C
ATOM	5229	O	ALA	M	68	-45.188	149.538	300.606	1	81.29	D	O
ATOM	5230	N	THR	M	69	-43.735	148.612	302.021	1	67.43	D	N
ATOM	5231	CA	THR	M	69	-43.452	147.454	301.173	1	69.63	D	C
ATOM	5232	CB	THR	M	69	-42.148	147.63	300.373	1	71.88		C
ATOM	5233	OG1	THR	M	69	-42.245	148.807	299.569	1	71.72		O
ATOM	5234	CG2	THR	M	69	-41.889	146.409	299.469	1	69.75		C
ATOM	5235	C	THR	M	69	-43.34	146.189	302.022	1	69.3	D	C
ATOM	5236	O	THR	M	69	-42.364	145.998	302.772	1	65.18	D	O
ATOM	5237	N	LEU	M	70	-44.328	145.317	301.862	1	59.74	D	N
ATOM	5238	CA	LEU	M	70	-44.4	144.112	302.617	1	55.29	D	C
ATOM	5239	CB	LEU	M	70	-45.857	143.768	302.872	1	55.61		C
ATOM	5240	CG	LEU	M	70	-46.669	144.81	303.641	1	58.75		C
ATOM	5241	CD1	LEU	M	70	-48.118	144.364	303.81	1	60.03		C
ATOM	5242	CD2	LEU	M	70	-46.062	145.122	304.999	1	59.87		C
ATOM	5243	C	LEU	M	70	-43.706	143.015	301.827	1	55.53	D	C
ATOM	5244	O	LEU	M	70	-44.036	142.781	300.681	1	57.52	D	O
ATOM	5245	N	THR	M	71	-42.719	142.366	302.431	1	58.34	D	N
ATOM	5246	CA	THR	M	71	-42.14	141.15	301.864	1	63.17	D	C
ATOM	5247	CB	THR	M	71	-40.683	141.365	301.39	1	63.54	D	C
ATOM	5248	OG1	THR	M	71	-39.811	141.503	302.516	1	67.56	D	O
ATOM	5249	CG2	THR	M	71	-40.571	142.592	300.526	1	63.86	D	C
ATOM	5250	C	THR	M	71	-42.209	140.036	302.909	1	60.74	D	C
ATOM	5251	O	THR	M	71	-42.741	140.235	303.99	1	64.08	D	O
ATOM	5252	N	ALA	M	72	-41.701	138.865	302.554	1	58.73	D	N
ATOM	5253	CA	ALA	M	72	-41.615	137.739	303.461	1	60.26	D	C
ATOM	5254	CB	ALA	M	72	-42.955	137.035	303.547	1	60.51	D	C
ATOM	5255	C	ALA	M	72	-40.545	136.762	302.988	1	60.25	D	C
ATOM	5256	O	ALA	M	72	-40.314	136.639	301.795	1	59.78	D	O
ATOM	5257	N	ASP	M	73	-39.888	136.096	303.935	1	60.55	D	N
ATOM	5258	CA	ASP	M	73	-38.896	135.07	303.638	1	63.7	D	C
ATOM	5259	CB	ASP	M	73	-37.486	135.515	304.044	1	66.22	D	C
ATOM	5260	CG	ASP	M	73	-36.471	134.384	303.966	1	70.14	D	C
ATOM	5261	OD1	ASP	M	73	-36.493	133.504	304.851	1	73.24	D	O
ATOM	5262	OD2	ASP	M	73	-35.648	134.359	303.033	1	76.35	D	O
ATOM	5263	C	ASP	M	73	-39.294	133.784	304.355	1	63.96	D	C

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ATOM	5264	O	ASP	M	73	-39.371	133.732	305.579	1	62.37	D	O
ATOM	5265	N	LYS	M	74	-39.478	132.736	303.569	1	63.52	D	N
ATOM	5266	CA	LYS	M	74	-40.03	131.499	304.053	1	64.57	D	C
ATOM	5267	CB	LYS	M	74	-40.504	130.656	302.866	1	73.2		C
ATOM	5268	CG	LYS	M	74	-41.541	131.369	301.989	1	77.68		C
ATOM	5269	CD	LYS	M	74	-42.134	130.438	300.939	1	77.64		C
ATOM	5270	CE	LYS	M	74	-42.245	131.114	299.59	1	74.12		C
ATOM	5271	NZ	LYS	M	74	-42.755	130.139	298.599	1	78.19		N
ATOM	5272	C	LYS	M	74	-39.035	130.716	304.903	1	63.31	D	C
ATOM	5273	O	LYS	M	74	-39.418	130.099	305.884	1	67.07	D	O
ATOM	5274	N	SER	M	75	-37.762	130.748	304.54	1	63.07	D	N
ATOM	5275	CA	SER	M	75	-36.757	129.945	305.215	1	64.12	D	C
ATOM	5276	CB	SER	M	75	-35.493	129.853	304.371	1	64.33	D	C
ATOM	5277	OG	SER	M	75	-34.962	131.147	304.199	1	68.01	D	O
ATOM	5278	C	SER	M	75	-36.447	130.527	306.587	1	61.79	D	C
ATOM	5279	O	SER	M	75	-36.369	129.799	307.562	1	68.47	D	O
ATOM	5280	N	SER	M	76	-36.307	131.838	306.682	1	58.12	D	N
ATOM	5281	CA	SER	M	76	-36.185	132.479	307.999	1	59.93	D	C
ATOM	5282	CB	SER	M	76	-35.485	133.832	307.871	1	56.38	D	C
ATOM	5283	OG	SER	M	76	-36.264	134.748	307.127	1	58.23		O
ATOM	5284	C	SER	M	76	-37.536	132.657	308.718	1	64.03	D	C
ATOM	5285	O	SER	M	76	-37.579	133.289	309.774	1	63.51	D	O
ATOM	5286	N	SER	M	77	-38.624	132.103	308.159	1	64.37	D	N
ATOM	5287	CA	SER	M	77	-39.992	132.331	308.626	1	60.54	D	C
ATOM	5288	CB	SER	M	77	-40.342	131.308	309.7	1	59.84	D	C
ATOM	5289	OG	SER	M	77	-40.889	130.145	309.117	1	61.56		O
ATOM	5290	C	SER	M	77	-40.249	133.777	309.104	1	67.27	D	C
ATOM	5291	O	SER	M	77	-40.925	134	310.126	1	71.28	D	O
ATOM	5292	N	THR	M	78	-39.729	134.742	308.332	1	63.03	D	N
ATOM	5293	CA	THR	M	78	-39.69	136.163	308.713	1	64.15	D	C
ATOM	5294	CB	THR	M	78	-38.217	136.639	308.798	1	63.44		C
ATOM	5295	OG1	THR	M	78	-37.492	135.779	309.684	1	60.67		O
ATOM	5296	CG2	THR	M	78	-38.104	138.08	309.289	1	61.66		C
ATOM	5297	C	THR	M	78	-40.451	137.07	307.726	1	61.82	D	C
ATOM	5298	O	THR	M	78	-40.181	137.046	306.526	1	64.68	D	O
ATOM	5299	N	ALA	M	79	-41.381	137.872	308.244	1	57	D	N
ATOM	5300	CA	ALA	M	79	-42.121	138.854	307.447	1	54.08	D	C
ATOM	5301	CB	ALA	M	79	-43.582	138.899	307.866	1	54.34	D	C
ATOM	5302	C	ALA	M	79	-41.516	140.211	307.667	1	51.59	D	C
ATOM	5303	O	ALA	M	79	-41.397	140.636	308.795	1	52.33	D	O
ATOM	5304	N	TYR	M	80	-41.171	140.902	306.589	1	54.21	D	N
ATOM	5305	CA	TYR	M	80	-40.684	142.27	306.663	1	50.46	D	C
ATOM	5306	CB	TYR	M	80	-39.503	142.453	305.743	1	49.93		C
ATOM	5307	CG	TYR	M	80	-38.344	141.637	306.145	1	52.63		C
ATOM	5308	CD1	TYR	M	80	-38.271	140.294	305.804	1	57.04		C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	5309	CE1	TYR	M	80	-37.192	139.508	306.19	1	62.01		C
ATOM	5310	CZ	TYR	M	80	-36.174	140.068	306.94	1	64.11		C
ATOM	5311	OH	TYR	M	80	-35.106	139.294	307.316	1	72.3		O
ATOM	5312	CE2	TYR	M	80	-36.227	141.407	307.297	1	63.98		C
ATOM	5313	CD2	TYR	M	80	-37.316	142.185	306.894	1	58.18		C
ATOM	5314	C	TYR	M	80	-41.765	143.259	306.275	1	52.87	D	C
ATOM	5315	O	TYR	M	80	-42.838	142.863	305.767	1	55.95	D	O
ATOM	5316	N	MET	M	81	-41.47	144.53	306.583	1	49.92	D	N
ATOM	5317	CA	MET	M	81	-42.125	145.709	306.031	1	48.73	D	C
ATOM	5318	CB	MET	M	81	-43.253	146.224	306.91	1	48.08		C
ATOM	5319	CG	MET	M	81	-43.809	147.592	306.479	1	49.68		C
ATOM	5320	SD	MET	M	81	-44.829	148.48	307.689	1	55.28		S
ATOM	5321	CE	MET	M	81	-46.247	147.452	307.748	1	53.95		C
ATOM	5322	C	MET	M	81	-41.074	146.797	305.966	1	54.86	D	C
ATOM	5323	O	MET	M	81	-40.573	147.22	307	1	58.78	D	O
ATOM	5324	N	GLN	M	82	-40.765	147.264	304.76	1	61.38	D	N
ATOM	5325	CA	GLN	M	82	-39.895	148.418	304.565	1	60.4	D	C
ATOM	5326	CB	GLN	M	82	-39.019	148.218	303.331	1	65.48	D	C
ATOM	5327	CG	GLN	M	82	-38.058	149.363	303.055	1	72.9	D	C
ATOM	5328	CD	GLN	M	82	-36.963	148.982	302.081	1	76.75	D	C
ATOM	5329	OE1	GLN	M	82	-36.084	148.2	302.42	1	83.9	D	O
ATOM	5330	NE2	GLN	M	82	-37	149.54	300.869	1	82.74	D	N
ATOM	5331	C	GLN	M	82	-40.746	149.673	304.409	1	59	D	C
ATOM	5332	O	GLN	M	82	-41.766	149.648	303.715	1	56.42	D	O
ATOM	5333	N	LEU	M	83	-40.317	150.758	305.059	1	60.55	D	N
ATOM	5334	CA	LEU	M	83	-40.958	152.078	304.948	1	64.33	D	C
ATOM	5335	CB	LEU	M	83	-41.327	152.629	306.316	1	57.7	D	C
ATOM	5336	CG	LEU	M	83	-42.195	151.72	307.161	1	56.06	D	C
ATOM	5337	CD1	LEU	M	83	-42.425	152.375	308.508	1	59.58	D	C
ATOM	5338	CD2	LEU	M	83	-43.505	151.424	306.453	1	54.53	D	C
ATOM	5339	C	LEU	M	83	-39.943	152.997	304.331	1	73.53	D	C
ATOM	5340	O	LEU	M	83	-38.782	152.964	304.755	1	84.56	D	O
ATOM	5341	N	SER	M	84	-40.355	153.813	303.353	1	73.37	D	N
ATOM	5342	CA	SER	M	84	-39.397	154.656	302.606	1	70.34	D	C
ATOM	5343	CB	SER	M	84	-39.268	154.189	301.155	1	65.98	D	C
ATOM	5344	OG	SER	M	84	-40.496	154.307	300.457	1	64.43		O
ATOM	5345	C	SER	M	84	-39.749	156.132	302.683	1	70.18	D	C
ATOM	5346	O	SER	M	84	-40.836	156.503	303.162	1	59.29	D	O
ATOM	5347	N	SER	M	85	-38.78	156.951	302.25	1	77.77	D	N
ATOM	5348	CA	SER	M	85	-38.865	158.428	302.236	1	81.35	D	C
ATOM	5349	CB	SER	M	85	-39.365	158.927	300.857	1	82.96	D	C
ATOM	5350	OG	SER	M	85	-40.495	158.207	300.373	1	83.64	D	O
ATOM	5351	C	SER	M	85	-39.669	159.013	303.425	1	81.71	D	C
ATOM	5352	O	SER	M	85	-40.7	159.682	303.253	1	67.48	D	O
ATOM	5353	N	LEU	M	86	-39.179	158.742	304.636	1	88.13	D	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	5354	CA	LEU	M	86	-39.971	159.002	305.851	1	94.77	D	C
ATOM	5355	CB	LEU	M	86	-39.438	158.24	307.07	1	93.29		C
ATOM	5356	CG	LEU	M	86	-39.098	156.754	306.955	1	90.01		C
ATOM	5357	CD1	LEU	M	86	-37.611	156.518	307.173	1	88.83		C
ATOM	5358	CD2	LEU	M	86	-39.901	155.964	307.968	1	82.72		C
ATOM	5359	C	LEU	M	86	-40.048	160.47	306.249	1	93.13	D	C
ATOM	5360	O	LEU	M	86	-39.06	161.202	306.16	1	105.8	D	O
ATOM	5361	N	THR	M	87	-41.226	160.875	306.705	1	82.32	D	N
ATOM	5362	CA	THR	M	87	-41.401	162.126	307.421	1	85.44	D	C
ATOM	5363	CB	THR	M	87	-42.605	162.947	306.879	1	92.09	D	C
ATOM	5364	OG1	THR	M	87	-43.846	162.293	307.196	1	86.13	D	O
ATOM	5365	CG2	THR	M	87	-42.485	163.161	305.354	1	93.38	D	C
ATOM	5366	C	THR	M	87	-41.621	161.772	308.885	1	85.89	D	C
ATOM	5367	O	THR	M	87	-41.638	160.605	309.25	1	90.74	D	O
ATOM	5368	N	SER	M	88	-41.807	162.791	309.715	1	88.48	D	N
ATOM	5369	CA	SER	M	88	-42.144	162.617	311.129	1	89.06	D	C
ATOM	5370	CB	SER	M	88	-41.872	163.925	311.892	1	94.24		C
ATOM	5371	OG	SER	M	88	-42.272	165.055	311.13	1	93.94		O
ATOM	5372	C	SER	M	88	-43.59	162.151	311.352	1	87.69	D	C
ATOM	5373	O	SER	M	88	-43.961	161.778	312.473	1	90.16	D	O
ATOM	5374	N	GLU	M	89	-44.408	162.185	310.3	1	87.44	D	N
ATOM	5375	CA	GLU	M	89	-45.723	161.54	310.317	1	88.43	D	C
ATOM	5376	CB	GLU	M	89	-46.524	161.957	309.075	1	96.73	D	C
ATOM	5377	CG	GLU	M	89	-48.012	161.64	309.114	1	106.67	D	C
ATOM	5378	CD	GLU	M	89	-48.781	162.524	310.075	1	109.06	D	C
ATOM	5379	OE1	GLU	M	89	-49.477	163.451	309.601	1	122.22	D	O
ATOM	5380	OE2	GLU	M	89	-48.689	162.294	311.297	1	99.85	D	O
ATOM	5381	C	GLU	M	89	-45.593	160.004	310.403	1	79.93	D	C
ATOM	5382	O	GLU	M	89	-46.483	159.333	310.913	1	80.7	D	O
ATOM	5383	N	ASP	M	90	-44.478	159.469	309.908	1	71.11	D	N
ATOM	5384	CA	ASP	M	90	-44.147	158.049	310.024	1	75.23	D	C
ATOM	5385	CB	ASP	M	90	-43.249	157.635	308.857	1	74.89	D	C
ATOM	5386	CG	ASP	M	90	-43.919	157.813	307.536	1	74.37	D	C
ATOM	5387	OD1	ASP	M	90	-45.072	157.327	307.406	1	69.15	D	O
ATOM	5388	OD2	ASP	M	90	-43.283	158.431	306.651	1	72.16	D	O
ATOM	5389	C	ASP	M	90	-43.487	157.609	311.349	1	81.88	D	C
ATOM	5390	O	ASP	M	90	-43.048	156.447	311.473	1	72.59	D	O
ATOM	5391	N	SER	M	91	-43.396	158.518	312.323	1	89.62	D	N
ATOM	5392	CA	SER	M	91	-42.961	158.157	313.664	1	88.69	D	C
ATOM	5393	CB	SER	M	91	-42.311	159.337	314.398	1	90.46		C
ATOM	5394	OG	SER	M	91	-43.244	160.377	314.653	1	108.3		O
ATOM	5395	C	SER	M	91	-44.201	157.615	314.378	1	82.13	D	C
ATOM	5396	O	SER	M	91	-45.215	158.302	314.522	1	78.44	D	O
ATOM	5397	N	ALA	M	92	-44.108	156.355	314.775	1	75.43	D	N
ATOM	5398	CA	ALA	M	92	-45.229	155.625	315.314	1	73.68	D	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	5399	CB	ALA	M	92	-46.249	155.361	314.212	1	76.26	D	C
ATOM	5400	C	ALA	M	92	-44.704	154.309	315.869	1	72	D	C
ATOM	5401	O	ALA	M	92	-43.51	154.004	315.742	1	67	D	O
ATOM	5402	N	VAL	M	93	-45.617	153.544	316.462	1	65.98	D	N
ATOM	5403	CA	VAL	M	93	-45.387	152.166	316.851	1	62.64	D	C
ATOM	5404	CB	VAL	M	93	-45.842	151.964	318.315	1	63.72		C
ATOM	5405	CG1	VAL	M	93	-45.85	150.491	318.721	1	64.25		C
ATOM	5406	CG2	VAL	M	93	-44.94	152.778	319.234	1	66.19		C
ATOM	5407	C	VAL	M	93	-46.151	151.248	315.877	1	61.29	D	C
ATOM	5408	O	VAL	M	93	-47.384	151.334	315.768	1	57.8	D	O
ATOM	5409	N	TYR	M	94	-45.408	150.371	315.195	1	57.97	D	N
ATOM	5410	CA	TYR	M	94	-45.964	149.375	314.268	1	60.78	D	C
ATOM	5411	CB	TYR	M	94	-45.111	149.332	313.022	1	62.76	D	C
ATOM	5412	CG	TYR	M	94	-45.022	150.642	312.316	1	68.38	D	C
ATOM	5413	CD1	TYR	M	94	-46.067	151.076	311.511	1	73.24	D	C
ATOM	5414	CE1	TYR	M	94	-45.997	152.287	310.84	1	77.37	D	C
ATOM	5415	CZ	TYR	M	94	-44.876	153.086	310.964	1	73.78	D	C
ATOM	5416	OH	TYR	M	94	-44.845	154.279	310.283	1	66.94	D	O
ATOM	5417	CE2	TYR	M	94	-43.815	152.67	311.76	1	74.25	D	C
ATOM	5418	CD2	TYR	M	94	-43.893	151.456	312.437	1	67.97	D	C
ATOM	5419	C	TYR	M	94	-46.029	147.931	314.799	1	62.3	D	C
ATOM	5420	O	TYR	M	94	-45.033	147.391	315.27	1	64.26	D	O
ATOM	5421	N	PHE	M	95	-47.183	147.292	314.653	1	60.44	D	N
ATOM	5422	CA	PHE	M	95	-47.356	145.878	314.99	1	59.24	D	C
ATOM	5423	CB	PHE	M	95	-48.678	145.698	315.734	1	63.54		C
ATOM	5424	CG	PHE	M	95	-48.738	146.464	317.014	1	64.78		C
ATOM	5425	CD1	PHE	M	95	-48.26	145.905	318.201	1	61.14		C
ATOM	5426	CE1	PHE	M	95	-48.273	146.623	319.379	1	56.9		C
ATOM	5427	CZ	PHE	M	95	-48.767	147.906	319.399	1	59.3		C
ATOM	5428	CE2	PHE	M	95	-49.232	148.477	318.228	1	70.09		C
ATOM	5429	CD2	PHE	M	95	-49.214	147.755	317.035	1	68.08		C
ATOM	5430	C	PHE	M	95	-47.343	144.98	313.753	1	58.1	D	C
ATOM	5431	O	PHE	M	95	-47.527	145.456	312.627	1	60.93	D	O
ATOM	5432	N	CYS	M	96	-47.072	143.695	313.967	1	53.74	D	N
ATOM	5433	CA	CYS	M	96	-47.397	142.659	313.003	1	56.95	D	C
ATOM	5434	CB	CYS	M	96	-46.154	141.942	312.475	1	60.36	D	C
ATOM	5435	SG	CYS	M	96	-45.287	140.999	313.731	1	66.5	D	S
ATOM	5436	C	CYS	M	96	-48.323	141.715	313.756	1	54.99	D	C
ATOM	5437	O	CYS	M	96	-48.352	141.754	314.983	1	54.38	D	O
ATOM	5438	N	ALA	M	97	-49.103	140.913	313.037	1	48.2	D	N
ATOM	5439	CA	ALA	M	97	-50.103	140.066	313.671	1	49.86	D	C
ATOM	5440	CB	ALA	M	97	-51.308	140.886	314.066	1	50.41	D	C
ATOM	5441	C	ALA	M	97	-50.52	138.979	312.709	1	52.86	D	C
ATOM	5442	O	ALA	M	97	-50.583	139.227	311.511	1	57.06	D	O
ATOM	5443	N	ARG	M	98	-50.805	137.783	313.212	1	49.28	D	N

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ATOM	5444	CA	ARG	M	98	-51.134	136.687	312.32	1	52.84	D	C
ATOM	5445	CB	ARG	M	98	-50.375	135.405	312.696	1	58.49	D	C
ATOM	5446	CG	ARG	M	98	-50.917	134.563	313.841	1	62.32	D	C
ATOM	5447	CD	ARG	M	98	-51.69	133.342	313.353	1	63.92	D	C
ATOM	5448	NE	ARG	M	98	-51.025	132.044	313.59	1	61.92	D	N
ATOM	5449	CZ	ARG	M	98	-51.2	131.243	314.648	1	57.37	D	C
ATOM	5450	NH1	ARG	M	98	-50.552	130.083	314.696	1	63.83	D	N
ATOM	5451	NH2	ARG	M	98	-52.019	131.562	315.641	1	52.5	D	N
ATOM	5452	C	ARG	M	98	-52.621	136.522	312.308	1	47.16	D	C
ATOM	5453	O	ARG	M	98	-53.249	136.724	313.312	1	44.53	D	O
ATOM	5454	N	ALA	M	99	-53.174	136.187	311.153	1	47.14	D	N
ATOM	5455	CA	ALA	M	99	-54.608	136.063	310.984	1	45.53	D	C
ATOM	5456	CB	ALA	M	99	-55.043	136.799	309.753	1	44.7	D	C
ATOM	5457	C	ALA	M	99	-54.9	134.583	310.886	1	48.17	D	C
ATOM	5458	O	ALA	M	99	-54.695	133.957	309.848	1	57.06	D	O
ATOM	5459	N	TYR	M	100	-55.335	134.037	312.007	1	50.79	D	N
ATOM	5460	CA	TYR	M	100	-55.452	132.613	312.233	1	50.81	D	C
ATOM	5461	CB	TYR	M	100	-55.218	132.298	313.725	1	51.32	D	C
ATOM	5462	CG	TYR	M	100	-55.098	130.823	313.955	1	52.9	D	C
ATOM	5463	CD1	TYR	M	100	-53.985	130.129	313.488	1	49.73	D	C
ATOM	5464	CE1	TYR	M	100	-53.88	128.772	313.653	1	49.03	D	C
ATOM	5465	CZ	TYR	M	100	-54.892	128.08	314.269	1	46.11	D	C
ATOM	5466	OH	TYR	M	100	-54.768	126.727	314.387	1	44.91	D	O
ATOM	5467	CE2	TYR	M	100	-56.025	128.732	314.722	1	49.48	D	C
ATOM	5468	CD2	TYR	M	100	-56.131	130.099	314.55	1	52.13	D	C
ATOM	5469	C	TYR	M	100	-56.856	132.208	311.872	1	50.93	D	C
ATOM	5470	O	TYR	M	100	-57.753	133.026	311.984	1	51.13	D	O
ATOM	5471	N	LEU	M	101	-57.05	130.949	311.488	1	52.18		N
ATOM	5472	CA	LEU	M	101	-58.332	130.498	310.941	1	55.47		C
ATOM	5473	CB	LEU	M	101	-58.132	129.346	309.935	1	56.54		C
ATOM	5474	CG	LEU	M	101	-59.313	128.475	309.453	1	54.36		C
ATOM	5475	CD1	LEU	M	101	-60.219	129.226	308.502	1	54.78		C
ATOM	5476	CD2	LEU	M	101	-58.803	127.214	308.772	1	52.49		C
ATOM	5477	C	LEU	M	101	-59.217	130.066	312.077	1	52.09		C
ATOM	5478	O	LEU	M	101	-59.03	128.995	312.589	1	51.25		O
ATOM	5479	N	LEU	M	102	-60.187	130.899	312.445	1	55.63		N
ATOM	5480	CA	LEU	M	102	-61.064	130.635	313.597	1	60.2		C
ATOM	5481	CB	LEU	M	102	-61.529	131.95	314.263	1	62.87		C
ATOM	5482	CG	LEU	M	102	-60.644	132.725	315.265	1	61.43		C
ATOM	5483	CD1	LEU	M	102	-59.534	131.897	315.894	1	62.59		C
ATOM	5484	CD2	LEU	M	102	-60.035	133.942	314.609	1	64.34		C
ATOM	5485	C	LEU	M	102	-62.302	129.798	313.327	1	57.88		C
ATOM	5486	O	LEU	M	102	-62.814	129.19	314.259	1	55.09		O
ATOM	5487	N	ARG	M	103	-62.808	129.8	312.093	1	60.11		N
ATOM	5488	CA	ARG	M	103	-64.061	129.098	311.766	1	61.45		C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	5489	CB	ARG	M	103	-65.265	129.95	312.184	1	64.66		C
ATOM	5490	CG	ARG	M	103	-66.463	129.169	312.697	1	67.98		C
ATOM	5491	CD	ARG	M	103	-67.616	130.116	312.994	1	72.95		C
ATOM	5492	NE	ARG	M	103	-68.54	129.593	314.005	1	80.17		N
ATOM	5493	CZ	ARG	M	103	-68.351	129.608	315.329	1	81.3		C
ATOM	5494	NH1	ARG	M	103	-67.251	130.111	315.878	1	79.49		N
ATOM	5495	NH2	ARG	M	103	-69.279	129.09	316.124	1	90.68		N
ATOM	5496	C	ARG	M	103	-64.152	128.837	310.285	1	57.13		C
ATOM	5497	O	ARG	M	103	-63.715	129.682	309.504	1	63.99		O
ATOM	5498	N	LEU	M	104	-64.74	127.702	309.898	1	54.04		N
ATOM	5499	CA	LEU	M	104	-64.968	127.363	308.468	1	54.03		C
ATOM	5500	CB	LEU	M	104	-64.215	126.063	308.039	1	49.91		C
ATOM	5501	CG	LEU	M	104	-64.348	125.653	306.548	1	46.59		C
ATOM	5502	CD1	LEU	M	104	-63.947	126.769	305.605	1	49.43		C
ATOM	5503	CD2	LEU	M	104	-63.53	124.455	306.18	1	44.82		C
ATOM	5504	C	LEU	M	104	-66.451	127.172	308.214	1	55.94		C
ATOM	5505	O	LEU	M	104	-67.048	126.27	308.816	1	56.47		O
ATOM	5506	N	ARG	M	105	-67.027	127.994	307.322	1	58.77		N
ATOM	5507	CA	ARG	M	105	-68.477	127.947	306.979	1	66.6		C
ATOM	5508	CB	ARG	M	105	-69.343	128.776	307.979	1	63.22		C
ATOM	5509	CG	ARG	M	105	-69.368	128.393	309.45	1	67.04		C
ATOM	5510	CD	ARG	M	105	-70.517	127.474	309.851	1	65.67		C
ATOM	5511	NE	ARG	M	105	-70.438	127.153	311.274	1	68.16		N
ATOM	5512	CZ	ARG	M	105	-69.534	126.336	311.836	1	79.12		C
ATOM	5513	NH1	ARG	M	105	-68.6	125.723	311.111	1	87.74		N
ATOM	5514	NH2	ARG	M	105	-69.546	126.126	313.151	1	82.74		N
ATOM	5515	C	ARG	M	105	-68.775	128.533	305.571	1	69.6		C
ATOM	5516	O	ARG	M	105	-69.589	129.467	305.488	1	84.34		O
ATOM	5517	N	ARG	M	106	-68.174	128.005	304.496	1	56.3		N
ATOM	5518	CA	ARG	M	106	-68.275	128.563	303.113	1	57.67		C
ATOM	5519	CB	ARG	M	106	-69.254	129.732	302.905	1	68.56		C
ATOM	5520	CG	ARG	M	106	-70.73	129.399	302.755	1	73.75		C
ATOM	5521	CD	ARG	M	106	-71.316	129.745	301.388	1	80.12		C
ATOM	5522	NE	ARG	M	106	-72.269	128.697	300.999	1	90.74		N
ATOM	5523	CZ	ARG	M	106	-73.6	128.816	300.888	1	96.43		C
ATOM	5524	NH1	ARG	M	106	-74.239	129.985	301.082	1	95.1		N
ATOM	5525	NH2	ARG	M	106	-74.31	127.729	300.555	1	87.54		N
ATOM	5526	C	ARG	M	106	-66.968	129.143	302.733	1	53.25		C
ATOM	5527	O	ARG	M	106	-66.454	128.886	301.66	1	64.31		O
ATOM	5528	N	THR	M	107	-66.466	130.017	303.575	1	54.81	D	N
ATOM	5529	CA	THR	M	107	-65.07	130.425	303.494	1	61.76	D	C
ATOM	5530	CB	THR	M	107	-64.884	131.828	302.832	1	65.43		C
ATOM	5531	OG1	THR	M	107	-65.89	132.747	303.281	1	60.25		O
ATOM	5532	CG2	THR	M	107	-64.955	131.721	301.286	1	71.12		C
ATOM	5533	C	THR	M	107	-64.508	130.339	304.91	1	62.14	D	C

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ATOM	5534	O	THR	M	107	-65.201	129.901	305.844	1	64.5	D	O
ATOM	5535	N	GLY	M	108	-63.247	130.706	305.068	1	60.33	D	N
ATOM	5536	CA	GLY	M	108	-62.658	130.742	306.395	1	60.39	D	C
ATOM	5537	C	GLY	M	108	-62.915	132.083	307.035	1	54.06	D	C
ATOM	5538	O	GLY	M	108	-63.039	133.067	306.324	1	46.37	D	O
ATOM	5539	N	TYR	M	109	-63.004	132.116	308.369	1	53.01	D	N
ATOM	5540	CA	TYR	M	109	-62.968	133.382	309.109	1	51.55	D	C
ATOM	5541	CB	TYR	M	109	-64.093	133.505	310.149	1	53.53	D	C
ATOM	5542	CG	TYR	M	109	-64.307	134.935	310.562	1	54.06	D	C
ATOM	5543	CD1	TYR	M	109	-65.154	135.748	309.849	1	59.25	D	C
ATOM	5544	CE1	TYR	M	109	-65.333	137.084	310.185	1	62.71	D	C
ATOM	5545	CZ	TYR	M	109	-64.641	137.629	311.237	1	63.13	D	C
ATOM	5546	OH	TYR	M	109	-64.832	138.97	311.533	1	62.89	D	O
ATOM	5547	CE2	TYR	M	109	-63.763	136.834	311.96	1	62.57	D	C
ATOM	5548	CD2	TYR	M	109	-63.605	135.495	311.621	1	59.35	D	C
ATOM	5549	C	TYR	M	109	-61.621	133.516	309.799	1	49.96	D	C
ATOM	5550	O	TYR	M	109	-61.145	132.626	310.478	1	46.3	D	O
ATOM	5551	N	TYR	M	110	-61.031	134.674	309.639	1	51.84	D	N
ATOM	5552	CA	TYR	M	110	-59.76	134.958	310.212	1	52.09	D	C
ATOM	5553	CB	TYR	M	110	-58.742	135.141	309.091	1	52.92		C
ATOM	5554	CG	TYR	M	110	-58.655	133.989	308.102	1	53.43		C
ATOM	5555	CD1	TYR	M	110	-59.466	133.952	306.976	1	55.29		C
ATOM	5556	CE1	TYR	M	110	-59.37	132.926	306.044	1	55.99		C
ATOM	5557	CZ	TYR	M	110	-58.461	131.914	306.231	1	58.38		C
ATOM	5558	OH	TYR	M	110	-58.383	130.915	305.296	1	61.51		O
ATOM	5559	CE2	TYR	M	110	-57.633	131.924	307.345	1	60.12		C
ATOM	5560	CD2	TYR	M	110	-57.735	132.957	308.271	1	56.33		C
ATOM	5561	C	TYR	M	110	-59.832	136.211	311.097	1	53.58	D	C
ATOM	5562	O	TYR	M	110	-60.51	137.202	310.807	1	56.48	D	O
ATOM	5563	N	ALA	M	111	-59.119	136.139	312.201	1	58.65	D	N
ATOM	5564	CA	ALA	M	111	-58.915	137.28	313.077	1	56.35	D	C
ATOM	5565	CB	ALA	M	111	-60.019	137.377	314.111	1	55.59	D	C
ATOM	5566	C	ALA	M	111	-57.544	137.109	313.725	1	53.63	D	C
ATOM	5567	O	ALA	M	111	-56.982	136.008	313.776	1	52.82	D	O
ATOM	5568	N	MET	M	112	-57.024	138.216	314.21	1	50.21	D	N
ATOM	5569	CA	MET	M	112	-55.634	138.332	314.549	1	51.78	D	C
ATOM	5570	CB	MET	M	112	-55.206	139.783	314.355	1	52.1		C
ATOM	5571	CG	MET	M	112	-55.535	140.261	312.955	1	52.71		C
ATOM	5572	SD	MET	M	112	-54.682	141.764	312.523	1	55.39		S
ATOM	5573	CE	MET	M	112	-55.984	142.942	312.818	1	54.36		C
ATOM	5574	C	MET	M	112	-55.448	137.871	315.98	1	55.86	D	C
ATOM	5575	O	MET	M	112	-55.771	138.601	316.911	1	59.57	D	O
ATOM	5576	N	ASP	M	113	-54.961	136.646	316.162	1	55.88	D	N
ATOM	5577	CA	ASP	M	113	-54.867	136.102	317.511	1	54.9	D	C
ATOM	5578	CB	ASP	M	113	-55.166	134.587	317.614	1	52.48		C

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ATOM	5579	CG	ASP	M	113	-54.283	133.72	316.736	1	52.91		C
ATOM	5580	OD1	ASP	M	113	-53.418	134.253	316.022	1	47.03		O
ATOM	5581	OD2	ASP	M	113	-54.45	132.473	316.777	1	53.36		O
ATOM	5582	C	ASP	M	113	-53.565	136.49	318.187	1	55.05	D	C
ATOM	5583	O	ASP	M	113	-53.627	136.937	319.314	1	60.37	D	O
ATOM	5584	N	TYR	M	114	-52.417	136.348	317.515	1	52.48	D	N
ATOM	5585	CA	TYR	M	114	-51.091	136.568	318.142	1	50.42	D	C
ATOM	5586	CB	TYR	M	114	-50.162	135.351	317.991	1	50.83	D	C
ATOM	5587	CG	TYR	M	114	-50.48	134.19	318.904	1	53.93	D	C
ATOM	5588	CD1	TYR	M	114	-49.988	134.135	320.202	1	57.14	D	C
ATOM	5589	CE1	TYR	M	114	-50.301	133.074	321.034	1	58.87	D	C
ATOM	5590	CZ	TYR	M	114	-51.099	132.044	320.562	1	57.39	D	C
ATOM	5591	OH	TYR	M	114	-51.421	130.986	321.362	1	60.27	D	O
ATOM	5592	CE2	TYR	M	114	-51.585	132.069	319.281	1	55.81	D	C
ATOM	5593	CD2	TYR	M	114	-51.271	133.135	318.461	1	56.37	D	C
ATOM	5594	C	TYR	M	114	-50.405	137.77	317.516	1	51.52	D	C
ATOM	5595	O	TYR	M	114	-50.232	137.83	316.3	1	58.38	D	O
ATOM	5596	N	TRP	M	115	-49.975	138.7	318.357	1	47.14	D	N
ATOM	5597	CA	TRP	M	115	-49.41	139.949	317.907	1	43.57	D	C
ATOM	5598	CB	TRP	M	115	-50.179	141.06	318.559	1	44.11	D	C
ATOM	5599	CG	TRP	M	115	-51.568	141.221	318.044	1	43.5	D	C
ATOM	5600	CD1	TRP	M	115	-52.57	140.318	318.098	1	45.4	D	C
ATOM	5601	NE1	TRP	M	115	-53.711	140.841	317.529	1	50.03	D	N
ATOM	5602	CE2	TRP	M	115	-53.445	142.114	317.105	1	46.62	D	C
ATOM	5603	CD2	TRP	M	115	-52.105	142.388	317.423	1	43.07	D	C
ATOM	5604	CE3	TRP	M	115	-51.579	143.634	317.103	1	43.04	D	C
ATOM	5605	CZ3	TRP	M	115	-52.403	144.565	316.49	1	49.35	D	C
ATOM	5606	CH2	TRP	M	115	-53.742	144.265	316.175	1	46.28	D	C
ATOM	5607	CZ2	TRP	M	115	-54.276	143.045	316.48	1	47.82	D	C
ATOM	5608	C	TRP	M	115	-47.942	140.076	318.28	1	44.84	D	C
ATOM	5609	O	TRP	M	115	-47.462	139.438	319.205	1	49.1	D	O
ATOM	5610	N	GLY	M	116	-47.211	140.875	317.526	1	46.11	D	N
ATOM	5611	CA	GLY	M	116	-45.86	141.238	317.904	1	48.03	D	C
ATOM	5612	C	GLY	M	116	-45.9	142.272	319.016	1	51.3	D	C
ATOM	5613	O	GLY	M	116	-46.967	142.821	319.352	1	47.39	D	O
ATOM	5614	N	GLN	M	117	-44.737	142.518	319.603	1	52.48	D	N
ATOM	5615	CA	GLN	M	117	-44.649	143.515	320.678	1	60.51	D	C
ATOM	5616	CB	GLN	M	117	-43.299	143.578	321.407	1	57.82	D	C
ATOM	5617	CG	GLN	M	117	-42.376	142.424	321.232	1	58.53	D	C
ATOM	5618	CD	GLN	M	117	-41.618	142.563	319.962	1	59.78	D	C
ATOM	5619	OE1	GLN	M	117	-41.897	141.863	318.977	1	61.2	D	O
ATOM	5620	NE2	GLN	M	117	-40.681	143.495	319.947	1	59.99	D	N
ATOM	5621	C	GLN	M	117	-44.913	144.918	320.145	1	63.88	D	C
ATOM	5622	O	GLN	M	117	-45.505	145.746	320.833	1	62.51	D	O
ATOM	5623	N	GLY	M	118	-44.418	145.179	318.942	1	61.93	D	N

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ATOM	5624	CA	GLY	M	118	-44.443	146.504	318.368	1	63.12	D	C
ATOM	5625	C	GLY	M	118	-43.032	146.907	318.049	1	60.83	D	C
ATOM	5626	O	GLY	M	118	-42.084	146.27	318.517	1	59.21	D	O
ATOM	5627	N	THR	M	119	-42.902	147.958	317.243	1	58.27	D	N
ATOM	5628	CA	THR	M	119	-41.604	148.493	316.857	1	57.59	D	C
ATOM	5629	CB	THR	M	119	-41.132	147.907	315.529	1	53.46	D	C
ATOM	5630	OG1	THR	M	119	-40.803	146.535	315.723	1	50.86	D	O
ATOM	5631	CG2	THR	M	119	-39.895	148.612	315.027	1	54.67	D	C
ATOM	5632	C	THR	M	119	-41.715	149.991	316.729	1	61.91	D	C
ATOM	5633	O	THR	M	119	-42.341	150.475	315.797	1	62.16	D	O
ATOM	5634	N	SER	M	120	-41.103	150.717	317.669	1	69.04	A	N
ATOM	5635	CA	SER	M	120	-41.175	152.172	317.676	1	66.82	A	C
ATOM	5636	CB	SER	M	120	-40.884	152.762	319.06	1	72.32	A	C
ATOM	5637	OG	SER	M	120	-39.605	153.396	319.106	1	78.41	A	O
ATOM	5638	C	SER	M	120	-40.172	152.685	316.662	1	62.38	A	C
ATOM	5639	O	SER	M	120	-38.964	152.522	316.824	1	61.34	A	O
ATOM	5640	N	VAL	M	121	-40.694	153.262	315.593	1	65.59	A	N
ATOM	5641	CA	VAL	M	121	-39.898	154.006	314.631	1	65.03	A	C
ATOM	5642	CB	VAL	M	121	-40.397	153.775	313.188	1	62.95	A	C
ATOM	5643	CG1	VAL	M	121	-39.615	154.613	312.173	1	60.59	A	C
ATOM	5644	CG2	VAL	M	121	-40.312	152.294	312.84	1	63.42	A	C
ATOM	5645	C	VAL	M	121	-40.018	155.476	315.018	1	66.33	A	C
ATOM	5646	O	VAL	M	121	-41.111	155.979	315.328	1	59.29	A	O
ATOM	5647	N	THR	M	122	-38.881	156.152	315.025	1	69.44	A	N
ATOM	5648	CA	THR	M	122	-38.844	157.577	315.305	1	81.9	A	C
ATOM	5649	CB	THR	M	122	-38.416	157.848	316.767	1	89.58	A	C
ATOM	5650	OG1	THR	M	122	-37.384	156.919	317.144	1	101.7	A	O
ATOM	5651	CG2	THR	M	122	-39.635	157.679	317.73	1	84.58	A	C
ATOM	5652	C	THR	M	122	-37.909	158.2	314.289	1	76.68	A	C
ATOM	5653	O	THR	M	122	-36.844	157.636	313.993	1	66.08	A	O
ATOM	5654	N	VAL	M	123	-38.344	159.316	313.696	1	81.26	A	N
ATOM	5655	CA	VAL	M	123	-37.493	160.055	312.756	1	83.45	A	C
ATOM	5656	CB	VAL	M	123	-37.865	159.827	311.272	1	89.16	A	C
ATOM	5657	CG1	VAL	M	123	-37.796	158.338	310.927	1	90.85	A	C
ATOM	5658	CG2	VAL	M	123	-39.231	160.407	310.939	1	84.3	A	C
ATOM	5659	C	VAL	M	123	-37.436	161.538	313.091	1	80.06	A	C
ATOM	5660	O	VAL	M	123	-38.454	162.189	313.406	1	68.12	A	O
ATOM	5661	N	SER	M	124	-36.21	162.041	313.052	1	76.37	A	N
ATOM	5662	CA	SER	M	124	-35.921	163.385	313.477	1	87.42	A	C
ATOM	5663	CB	SER	M	124	-36.02	163.494	315.005	1	92.75	A	C
ATOM	5664	OG	SER	M	124	-36.025	164.843	315.44	1	103.14	A	O
ATOM	5665	C	SER	M	124	-34.509	163.689	313.018	1	96.36	A	C
ATOM	5666	O	SER	M	124	-33.59	162.887	313.22	1	96.27	A	O
ATOM	5667	N	SER	M	125	-34.342	164.834	312.369	1	104.99	A	N
ATOM	5668	CA	SER	M	125	-33.01	165.333	312.044	1	103.5	A	C

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ATOM	5669	CB	SER	M	125	-33.094	166.589	311.16	1	103.13	A	C
ATOM	5670	OG	SER	M	125	-34.122	167.462	311.592	1	106.58	A	O
ATOM	5671	C	SER	M	125	-32.218	165.6	313.334	1	100.99	A	C
ATOM	5672	O	SER	M	125	-31.002	165.417	313.347	1	99.25	A	O
ATOM	5673	N	ALA	M	126	-32.919	165.994	314.408	1	96.34	A	N
ATOM	5674	CA	ALA	M	126	-32.324	166.257	315.734	1	92.37	A	C
ATOM	5675	CB	ALA	M	126	-33.418	166.346	316.787	1	95.2	A	C
ATOM	5676	C	ALA	M	126	-31.285	165.229	316.173	1	88.8	A	C
ATOM	5677	O	ALA	M	126	-31.439	164.037	315.907	1	86.36	A	O
ATOM	5678	N	SER	M	127	-30.233	165.704	316.842	1	93.16	A	N
ATOM	5679	CA	SER	M	127	-29.119	164.849	317.273	1	95.79	A	C
ATOM	5680	CB	SER	M	127	-27.799	165.307	316.645	1	88.94	A	C
ATOM	5681	OG	SER	M	127	-26.915	164.206	316.496	1	86.52		O
ATOM	5682	C	SER	M	127	-29.006	164.806	318.796	1	100.27	A	C
ATOM	5683	O	SER	M	127	-29.555	165.657	319.504	1	103.17	A	O
ATOM	5684	N	THR	M	128	-28.282	163.799	319.28	1	104.41	A	N
ATOM	5685	CA	THR	M	128	-28.247	163.451	320.705	1	103.62	A	C
ATOM	5686	CB	THR	M	128	-27.304	162.246	320.971	1	94.15	A	C
ATOM	5687	OG1	THR	M	128	-27.545	161.223	319.995	1	86.88	A	O
ATOM	5688	CG2	THR	M	128	-27.548	161.662	322.346	1	92.32	A	C
ATOM	5689	C	THR	M	128	-27.886	164.653	321.6	1	106.14	A	C
ATOM	5690	O	THR	M	128	-26.718	164.996	321.769	1	109.66	A	O
ATOM	5691	N	LYS	M	129	-28.924	165.287	322.142	1	107.55	A	N
ATOM	5692	CA	LYS	M	129	-28.802	166.429	323.048	1	112.6	A	C
ATOM	5693	CB	LYS	M	129	-29.798	167.514	322.614	1	117.99		C
ATOM	5694	CG	LYS	M	129	-29.893	168.751	323.504	1	120.87		C
ATOM	5695	CD	LYS	M	129	-28.615	169.576	323.515	1	121.6		C
ATOM	5696	CE	LYS	M	129	-28.872	170.996	324.012	1	122.42		C
ATOM	5697	NZ	LYS	M	129	-29.463	171.075	325.382	1	120.3		N
ATOM	5698	C	LYS	M	129	-29.094	165.977	324.489	1	111.2	A	C
ATOM	5699	O	LYS	M	129	-30.176	165.452	324.767	1	103.88	A	O
ATOM	5700	N	GLY	M	130	-28.134	166.184	325.395	1	106.86	A	N
ATOM	5701	CA	GLY	M	130	-28.35	165.952	326.824	1	97.33	A	C
ATOM	5702	C	GLY	M	130	-29.251	167.036	327.406	1	98.58	A	C
ATOM	5703	O	GLY	M	130	-29.231	168.168	326.916	1	94.64	A	O
ATOM	5704	N	PRO	M	131	-30.036	166.709	328.462	1	100.51	A	N
ATOM	5705	CA	PRO	M	131	-31.026	167.647	329.016	1	98.35	A	C
ATOM	5706	CB	PRO	M	131	-31.957	166.73	329.796	1	97.85	A	C
ATOM	5707	CG	PRO	M	131	-31.066	165.633	330.277	1	97	A	C
ATOM	5708	CD	PRO	M	131	-29.956	165.48	329.276	1	97.4	A	C
ATOM	5709	C	PRO	M	131	-30.45	168.676	329.99	1	103.03	A	C
ATOM	5710	O	PRO	M	131	-29.347	168.495	330.525	1	97.6	A	O
ATOM	5711	N	SER	M	132	-31.223	169.733	330.226	1	105.61	A	N
ATOM	5712	CA	SER	M	132	-30.912	170.727	331.242	1	113.35	A	C
ATOM	5713	CB	SER	M	132	-30.836	172.121	330.63	1	121.46	A	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	5714	OG	SER	M	132	-29.848	172.191	329.623	1	127.75	A	O
ATOM	5715	C	SER	M	132	-32.02	170.692	332.276	1	117.5	A	C
ATOM	5716	O	SER	M	132	-33.198	170.748	331.914	1	105.32	A	O
ATOM	5717	N	VAL	M	133	-31.638	170.612	333.555	1	126.47	A	N
ATOM	5718	CA	VAL	M	133	-32.594	170.525	334.672	1	124.3	A	C
ATOM	5719	CB	VAL	M	133	-32.242	169.391	335.651	1	116.07	A	C
ATOM	5720	CG1	VAL	M	133	-33.349	169.224	336.689	1	112.48	A	C
ATOM	5721	CG2	VAL	M	133	-32.039	168.096	334.891	1	116.23	A	C
ATOM	5722	C	VAL	M	133	-32.663	171.828	335.464	1	124.33	A	C
ATOM	5723	O	VAL	M	133	-31.636	172.373	335.886	1	118.2	A	O
ATOM	5724	N	PHE	M	134	-33.892	172.292	335.677	1	123.16	A	N
ATOM	5725	CA	PHE	M	134	-34.171	173.556	336.341	1	123.53	A	C
ATOM	5726	CB	PHE	M	134	-34.745	174.568	335.336	1	128.4	A	C
ATOM	5727	CG	PHE	M	134	-33.977	174.645	334.031	1	135.58	A	C
ATOM	5728	CD1	PHE	M	134	-32.584	174.795	334.021	1	139.27	A	C
ATOM	5729	CE1	PHE	M	134	-31.878	174.866	332.821	1	134.19	A	C
ATOM	5730	CZ	PHE	M	134	-32.558	174.802	331.614	1	130.21	A	C
ATOM	5731	CE2	PHE	M	134	-33.937	174.655	331.607	1	129.89	A	C
ATOM	5732	CD2	PHE	M	134	-34.641	174.578	332.806	1	133.5	A	C
ATOM	5733	C	PHE	M	134	-35.164	173.282	337.474	1	116.68	A	C
ATOM	5734	O	PHE	M	134	-36.072	172.47	337.305	1	117.69	A	O
ATOM	5735	N	PRO	M	135	-34.998	173.952	338.634	1	117.45	A	N
ATOM	5736	CA	PRO	M	135	-35.852	173.678	339.784	1	119.4	A	C
ATOM	5737	CB	PRO	M	135	-35.127	174.39	340.929	1	120.13	A	C
ATOM	5738	CG	PRO	M	135	-34.484	175.547	340.271	1	120.27	A	C
ATOM	5739	CD	PRO	M	135	-34.03	175.022	338.938	1	124.23	A	C
ATOM	5740	C	PRO	M	135	-37.26	174.229	339.615	1	120.02	A	C
ATOM	5741	O	PRO	M	135	-37.559	174.869	338.607	1	120.12	A	O
ATOM	5742	N	LEU	M	136	-38.109	173.966	340.604	1	124.63	A	N
ATOM	5743	CA	LEU	M	136	-39.515	174.346	340.546	1	134.4	A	C
ATOM	5744	CB	LEU	M	136	-40.293	173.276	339.763	1	144.01	A	C
ATOM	5745	CG	LEU	M	136	-41.558	173.707	339.029	1	149.88	A	C
ATOM	5746	CD1	LEU	M	136	-41.226	174.55	337.805	1	152.03	A	C
ATOM	5747	CD2	LEU	M	136	-42.376	172.493	338.623	1	155.01	A	C
ATOM	5748	C	LEU	M	136	-40.066	174.54	341.968	1	139.57	A	C
ATOM	5749	O	LEU	M	136	-41.13	174.019	342.314	1	142.69	A	O
ATOM	5750	N	ALA	M	137	-39.329	175.328	342.762	1	141.12	A	N
ATOM	5751	CA	ALA	M	137	-39.591	175.544	344.2	1	137.92	A	C
ATOM	5752	CB	ALA	M	137	-38.526	176.463	344.794	1	138.29	A	C
ATOM	5753	C	ALA	M	137	-40.985	176.117	344.473	1	135.2	A	C
ATOM	5754	O	ALA	M	137	-41.518	176.846	343.636	1	140.02	A	O
ATOM	5755	N	PRO	M	138	-41.571	175.805	345.651	1	133.53		N
ATOM	5756	CA	PRO	M	138	-42.981	176.156	345.909	1	136.82		C
ATOM	5757	CB	PRO	M	138	-43.323	175.316	347.145	1	131.93		C
ATOM	5758	CG	PRO	M	138	-42.025	175.168	347.864	1	126.52		C

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ATOM	5759	CD	PRO	M	138	-40.946	175.151	346.82	1	123.15		C
ATOM	5760	C	PRO	M	138	-43.232	177.657	346.157	1	137.16		C
ATOM	5761	O	PRO	M	138	-42.943	178.18	347.238	1	132.05		O
ATOM	5762	N	GLY	M	146	-50.531	174.428	354.351	1	120.24	A	N
ATOM	5763	CA	GLY	M	146	-51.394	173.249	354.407	1	119.48	A	C
ATOM	5764	C	GLY	M	146	-50.802	172.037	353.703	1	121.95	A	C
ATOM	5765	O	GLY	M	146	-50.883	170.923	354.218	1	121.89	A	O
ATOM	5766	N	THR	M	147	-50.236	172.258	352.513	1	120.79	A	N
ATOM	5767	CA	THR	M	147	-49.507	171.22	351.754	1	115.1	A	C
ATOM	5768	CB	THR	M	147	-50.411	170.027	351.338	1	110.36		C
ATOM	5769	OG1	THR	M	147	-49.743	169.248	350.336	1	99.56		O
ATOM	5770	CG2	THR	M	147	-51.775	170.494	350.804	1	108.28		C
ATOM	5771	C	THR	M	147	-48.805	171.8	350.502	1	115.88	A	C
ATOM	5772	O	THR	M	147	-49.455	172.337	349.595	1	107.67	A	O
ATOM	5773	N	ALA	M	148	-47.48	171.675	350.458	1	114.48	A	N
ATOM	5774	CA	ALA	M	148	-46.677	172.273	349.391	1	116.78	A	C
ATOM	5775	CB	ALA	M	148	-45.351	172.771	349.948	1	115.02	A	C
ATOM	5776	C	ALA	M	148	-46.433	171.278	348.263	1	122.55	A	C
ATOM	5777	O	ALA	M	148	-46.64	170.07	348.431	1	125.72	A	O
ATOM	5778	N	ALA	M	149	-45.996	171.807	347.118	1	118.56	A	N
ATOM	5779	CA	ALA	M	149	-45.613	171.006	345.96	1	109.32	A	C
ATOM	5780	CB	ALA	M	149	-46.807	170.825	345.04	1	109.14	A	C
ATOM	5781	C	ALA	M	149	-44.454	171.659	345.2	1	109.6	A	C
ATOM	5782	O	ALA	M	149	-44.557	172.824	344.8	1	119.49	A	O
ATOM	5783	N	LEU	M	150	-43.37	170.901	345.005	1	100.86	A	N
ATOM	5784	CA	LEU	M	150	-42.202	171.334	344.217	1	102.35	A	C
ATOM	5785	CB	LEU	M	150	-40.982	171.439	345.135	1	104.53	A	C
ATOM	5786	CG	LEU	M	150	-40.453	170.148	345.786	1	108.4	A	C
ATOM	5787	CD1	LEU	M	150	-38.94	170.053	345.647	1	110.59	A	C
ATOM	5788	CD2	LEU	M	150	-40.879	170.019	347.246	1	107.97	A	C
ATOM	5789	C	LEU	M	150	-41.906	170.377	343.033	1	105.93	A	C
ATOM	5790	O	LEU	M	150	-42.662	169.429	342.8	1	112.18	A	O
ATOM	5791	N	GLY	M	151	-40.817	170.616	342.291	1	100.36	A	N
ATOM	5792	CA	GLY	M	151	-40.385	169.681	341.236	1	96.49	A	C
ATOM	5793	C	GLY	M	151	-39.097	170.033	340.5	1	97.22	A	C
ATOM	5794	O	GLY	M	151	-38.416	170.998	340.841	1	102.95	A	O
ATOM	5795	N	CYS	M	152	-38.755	169.221	339.503	1	94.82	A	N
ATOM	5796	CA	CYS	M	152	-37.736	169.561	338.518	1	98.78	A	C
ATOM	5797	CB	CYS	M	152	-36.744	168.416	338.347	1	101.28	A	C
ATOM	5798	SG	CYS	M	152	-35.349	168.501	339.48	1	112.11	A	S
ATOM	5799	C	CYS	M	152	-38.425	169.858	337.194	1	111.14	A	C
ATOM	5800	O	CYS	M	152	-39.65	169.744	337.076	1	116.06	A	O
ATOM	5801	N	LEU	M	153	-37.629	170.27	336.212	1	114.23	A	N
ATOM	5802	CA	LEU	M	153	-38.1	170.492	334.852	1	105.3	A	C
ATOM	5803	CB	LEU	M	153	-38.572	171.933	334.665	1	115.96	A	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	5804	CG	LEU	M	153	-38.74	172.493	333.238	1	123.69	A	C
ATOM	5805	CD1	LEU	M	153	-39.442	171.528	332.288	1	126.68	A	C
ATOM	5806	CD2	LEU	M	153	-39.503	173.809	333.296	1	124.23	A	C
ATOM	5807	C	LEU	M	153	-36.958	170.191	333.92	1	99.19	A	C
ATOM	5808	O	LEU	M	153	-36.002	170.957	333.847	1	88.96	A	O
ATOM	5809	N	VAL	M	154	-37.091	169.082	333.197	1	106.92	A	N
ATOM	5810	CA	VAL	M	154	-36.075	168.606	332.26	1	109.44	A	C
ATOM	5811	CB	VAL	M	154	-36.051	167.06	332.179	1	111.2	A	C
ATOM	5812	CG1	VAL	M	154	-34.803	166.582	331.451	1	111.34	A	C
ATOM	5813	CG2	VAL	M	154	-36.102	166.434	333.57	1	111.95	A	C
ATOM	5814	C	VAL	M	154	-36.412	169.188	330.893	1	104.06	A	C
ATOM	5815	O	VAL	M	154	-37.52	168.984	330.401	1	107.82	A	O
ATOM	5816	N	LYS	M	155	-35.464	169.911	330.293	1	101.67	A	N
ATOM	5817	CA	LYS	M	155	-35.708	170.655	329.058	1	100.45	A	C
ATOM	5818	CB	LYS	M	155	-35.64	172.165	329.321	1	107.85	A	C
ATOM	5819	CG	LYS	M	155	-35.785	173.037	328.075	1	112.89	A	C
ATOM	5820	CD	LYS	M	155	-36.261	174.452	328.384	1	114.67	A	C
ATOM	5821	CE	LYS	M	155	-36.489	175.259	327.112	1	115	A	C
ATOM	5822	NZ	LYS	M	155	-37.745	174.889	326.398	1	109.22	A	N
ATOM	5823	C	LYS	M	155	-34.723	170.277	327.958	1	104.12	A	C
ATOM	5824	O	LYS	M	155	-33.523	170.095	328.212	1	103.36	A	O
ATOM	5825	N	ASP	M	156	-35.264	170.166	326.742	1	102.88	A	N
ATOM	5826	CA	ASP	M	156	-34.504	170.004	325.499	1	97.11	A	C
ATOM	5827	CB	ASP	M	156	-33.803	171.31	325.116	1	95.79		C
ATOM	5828	CG	ASP	M	156	-34.784	172.443	324.867	1	103.96		C
ATOM	5829	OD1	ASP	M	156	-36.009	172.186	324.858	1	101.97		O
ATOM	5830	OD2	ASP	M	156	-34.331	173.596	324.689	1	117.29		O
ATOM	5831	C	ASP	M	156	-33.523	168.847	325.496	1	94.53	A	C
ATOM	5832	O	ASP	M	156	-32.303	169.047	325.592	1	93.89	A	O
ATOM	5833	N	TYR	M	157	-34.081	167.642	325.362	1	85.68	A	N
ATOM	5834	CA	TYR	M	157	-33.29	166.427	325.199	1	85.09	A	C
ATOM	5835	CB	TYR	M	157	-33.32	165.564	326.465	1	82.74	A	C
ATOM	5836	CG	TYR	M	157	-34.681	165.023	326.871	1	80.1	A	C
ATOM	5837	CD1	TYR	M	157	-35.634	165.85	327.469	1	82.24	A	C
ATOM	5838	CE1	TYR	M	157	-36.872	165.356	327.86	1	77.23	A	C
ATOM	5839	CZ	TYR	M	157	-37.164	164.018	327.667	1	73.9	A	C
ATOM	5840	OH	TYR	M	157	-38.395	163.54	328.052	1	77.29	A	O
ATOM	5841	CE2	TYR	M	157	-36.229	163.171	327.096	1	70.18	A	C
ATOM	5842	CD2	TYR	M	157	-35	163.675	326.703	1	74.04	A	C
ATOM	5843	C	TYR	M	157	-33.754	165.611	324.01	1	84.86	A	C
ATOM	5844	O	TYR	M	157	-34.891	165.745	323.561	1	89.71	A	O
ATOM	5845	N	PHE	M	158	-32.847	164.777	323.51	1	81.83	A	N
ATOM	5846	CA	PHE	M	158	-33.132	163.836	322.436	1	81.28	A	C
ATOM	5847	CB	PHE	M	158	-33.124	164.568	321.079	1	82.57	A	C
ATOM	5848	CG	PHE	M	158	-33.2	163.648	319.885	1	83.02	A	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	5849	CD1	PHE	M	158	-32.04	163.143	319.306	1	80.22	A	C
ATOM	5850	CE1	PHE	M	158	-32.107	162.277	318.227	1	79.4	A	C
ATOM	5851	CZ	PHE	M	158	-33.337	161.913	317.702	1	78.51	A	C
ATOM	5852	CE2	PHE	M	158	-34.502	162.408	318.26	1	76.34	A	C
ATOM	5853	CD2	PHE	M	158	-34.432	163.275	319.344	1	84.54	A	C
ATOM	5854	C	PHE	M	158	-32.065	162.722	322.483	1	89.75	A	C
ATOM	5855	O	PHE	M	158	-30.892	163.017	322.759	1	92.12	A	O
ATOM	5856	N	PRO	M	159	-32.431	161.452	322.254	1	94.2	A	N
ATOM	5857	CA	PRO	M	159	-33.815	160.962	322.114	1	90.96	A	C
ATOM	5858	CB	PRO	M	159	-33.63	159.664	321.32	1	91.82	A	C
ATOM	5859	CG	PRO	M	159	-32.272	159.177	321.727	1	91.53	A	C
ATOM	5860	CD	PRO	M	159	-31.442	160.422	321.874	1	90.66	A	C
ATOM	5861	C	PRO	M	159	-34.435	160.656	323.475	1	92.95	A	C
ATOM	5862	O	PRO	M	159	-33.789	160.865	324.502	1	100.6	A	O
ATOM	5863	N	GLU	M	160	-35.673	160.163	323.479	1	90.32	A	N
ATOM	5864	CA	GLU	M	160	-36.261	159.55	324.678	1	81.11	A	C
ATOM	5865	CB	GLU	M	160	-37.777	159.403	324.531	1	84.15	A	C
ATOM	5866	CG	GLU	M	160	-38.56	160.662	324.874	1	88.86	A	C
ATOM	5867	CD	GLU	M	160	-40.067	160.482	324.724	1	91.75	A	C
ATOM	5868	OE1	GLU	M	160	-40.803	160.713	325.717	1	94.13	A	O
ATOM	5869	OE2	GLU	M	160	-40.513	160.105	323.615	1	88.77	A	O
ATOM	5870	C	GLU	M	160	-35.599	158.179	324.906	1	82.2	A	C
ATOM	5871	O	GLU	M	160	-35.027	157.609	323.961	1	69.23	A	O
ATOM	5872	N	PRO	M	161	-35.649	157.635	326.132	1	91.25	A	N
ATOM	5873	CA	PRO	M	161	-36.348	158.187	327.302	1	88.08	A	C
ATOM	5874	CB	PRO	M	161	-36.899	156.929	327.947	1	90.23	A	C
ATOM	5875	CG	PRO	M	161	-35.778	155.944	327.753	1	90.13	A	C
ATOM	5876	CD	PRO	M	161	-35.145	156.278	326.42	1	90.37	A	C
ATOM	5877	C	PRO	M	161	-35.422	158.843	328.313	1	87.89	A	C
ATOM	5878	O	PRO	M	161	-34.198	158.735	328.203	1	80.88	A	O
ATOM	5879	N	VAL	M	162	-36.026	159.465	329.32	1	90.82	A	N
ATOM	5880	CA	VAL	M	162	-35.3	159.969	330.482	1	91.67	A	C
ATOM	5881	CB	VAL	M	162	-35.235	161.526	330.462	1	93.81	A	C
ATOM	5882	CG1	VAL	M	162	-36.533	162.186	330.92	1	90.08	A	C
ATOM	5883	CG2	VAL	M	162	-34.069	162.029	331.29	1	101.17	A	C
ATOM	5884	C	VAL	M	162	-35.958	159.414	331.752	1	89.55	A	C
ATOM	5885	O	VAL	M	162	-37.155	159.636	331.968	1	90.81	A	O
ATOM	5886	N	THR	M	163	-35.202	158.66	332.562	1	89	A	N
ATOM	5887	CA	THR	M	163	-35.683	158.231	333.897	1	85.72	A	C
ATOM	5888	CB	THR	M	163	-34.835	157.107	334.565	1	82.26	A	C
ATOM	5889	OG1	THR	M	163	-33.835	156.599	333.68	1	82.64	A	O
ATOM	5890	CG2	THR	M	163	-35.722	155.969	335.032	1	88.44	A	C
ATOM	5891	C	THR	M	163	-35.638	159.433	334.846	1	85.02	A	C
ATOM	5892	O	THR	M	163	-34.768	160.301	334.724	1	86.53	A	O
ATOM	5893	N	VAL	M	164	-36.568	159.479	335.791	1	81.42	A	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	5894	CA	VAL	M	164	-36.465	160.415	336.908	1	84.46	A	C
ATOM	5895	CB	VAL	M	164	-37.394	161.648	336.725	1	89.92	A	C
ATOM	5896	CG1	VAL	M	164	-37.299	162.606	337.912	1	85.5	A	C
ATOM	5897	CG2	VAL	M	164	-37.037	162.388	335.443	1	90.61	A	C
ATOM	5898	C	VAL	M	164	-36.763	159.668	338.214	1	85.37	A	C
ATOM	5899	O	VAL	M	164	-37.655	158.804	338.263	1	78.41	A	O
ATOM	5900	N	SER	M	165	-35.972	159.982	339.246	1	88.92	A	N
ATOM	5901	CA	SER	M	165	-36.239	159.568	340.634	1	91.46	A	C
ATOM	5902	CB	SER	M	165	-35.333	158.408	341.06	1	89.68	A	C
ATOM	5903	OG	SER	M	165	-33.967	158.761	340.957	1	93.3		O
ATOM	5904	C	SER	M	165	-36.026	160.754	341.561	1	94.66	A	C
ATOM	5905	O	SER	M	165	-35.514	161.802	341.135	1	99.36	A	O
ATOM	5906	N	TRP	M	166	-36.421	160.573	342.822	1	97.93	A	N
ATOM	5907	CA	TRP	M	166	-36.256	161.589	343.869	1	101.07	A	C
ATOM	5908	CB	TRP	M	166	-37.611	162.151	344.268	1	102.46	A	C
ATOM	5909	CG	TRP	M	166	-38.126	163.152	343.313	1	99.42	A	C
ATOM	5910	CD1	TRP	M	166	-38.956	162.928	342.27	1	98.46	A	C
ATOM	5911	NE1	TRP	M	166	-39.223	164.101	341.618	1	104.91	A	N
ATOM	5912	CE2	TRP	M	166	-38.546	165.117	342.238	1	111.26	A	C
ATOM	5913	CD2	TRP	M	166	-37.843	164.551	343.316	1	108.6	A	C
ATOM	5914	CE3	TRP	M	166	-37.061	165.386	344.131	1	114.13	A	C
ATOM	5915	CZ3	TRP	M	166	-37.011	166.748	343.845	1	112.03	A	C
ATOM	5916	CH2	TRP	M	166	-37.73	167.286	342.76	1	113.56	A	C
ATOM	5917	CZ2	TRP	M	166	-38.494	166.489	341.943	1	116.19	A	C
ATOM	5918	C	TRP	M	166	-35.559	161.022	345.099	1	98.49	A	C
ATOM	5919	O	TRP	M	166	-35.912	159.937	345.573	1	102.78	A	O
ATOM	5920	N	ASN	M	167	-34.59	161.781	345.618	1	92.16	A	N
ATOM	5921	CA	ASN	M	167	-33.714	161.331	346.706	1	88.1	A	C
ATOM	5922	CB	ASN	M	167	-34.43	161.409	348.056	1	85.56	A	C
ATOM	5923	CG	ASN	M	167	-34.8	162.833	348.449	1	88.93	A	C
ATOM	5924	OD1	ASN	M	167	-34.117	163.791	348.088	1	90.16	A	O
ATOM	5925	ND2	ASN	M	167	-35.884	162.977	349.208	1	88.02	A	N
ATOM	5926	C	ASN	M	167	-33.203	159.922	346.436	1	83.85	A	C
ATOM	5927	O	ASN	M	167	-33.58	158.968	347.098	1	77.72	A	O
ATOM	5928	N	SER	M	168	-32.391	159.803	345.398	1	87.7	A	N
ATOM	5929	CA	SER	M	168	-31.803	158.532	344.963	1	91.53	A	C
ATOM	5930	CB	SER	M	168	-30.447	158.326	345.666	1	84.35	A	C
ATOM	5931	OG	SER	M	168	-29.465	157.891	344.735	1	80.8	A	O
ATOM	5932	C	SER	M	168	-32.741	157.299	345.098	1	92.87	A	C
ATOM	5933	O	SER	M	168	-32.285	156.19	345.411	1	93.09	A	O
ATOM	5934	N	GLY	M	169	-34.037	157.512	344.823	1	87.82	A	N
ATOM	5935	CA	GLY	M	169	-35.061	156.455	344.838	1	84.77	A	C
ATOM	5936	C	GLY	M	169	-35.971	156.412	346.057	1	84.8	A	C
ATOM	5937	O	GLY	M	169	-36.91	155.614	346.104	1	77.85	A	O
ATOM	5938	N	ALA	M	170	-35.71	157.275	347.036	1	91.19	A	N

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ATOM	5939	CA	ALA	M	170	-36.354	157.195	348.353	1	87.79	A	C
ATOM	5940	CB	ALA	M	170	-35.537	157.947	349.387	1	90.36	A	C
ATOM	5941	C	ALA	M	170	-37.768	157.722	348.359	1	82.11	A	C
ATOM	5942	O	ALA	M	170	-38.631	157.161	349.032	1	84.23	A	O
ATOM	5943	N	LEU	M	171	-37.994	158.798	347.611	1	79.1	A	N
ATOM	5944	CA	LEU	M	171	-39.281	159.489	347.597	1	76.9	A	C
ATOM	5945	CB	LEU	M	171	-39.035	160.987	347.58	1	70.88	A	C
ATOM	5946	CG	LEU	M	171	-40.272	161.871	347.636	1	71.86	A	C
ATOM	5947	CD1	LEU	M	171	-41.207	161.498	348.788	1	67.84	A	C
ATOM	5948	CD2	LEU	M	171	-39.808	163.32	347.697	1	70.43	A	C
ATOM	5949	C	LEU	M	171	-40.149	159.095	346.392	1	81.95	A	C
ATOM	5950	O	LEU	M	171	-39.748	159.284	345.237	1	78.27	A	O
ATOM	5951	N	THR	M	172	-41.349	158.587	346.677	1	82.02	A	N
ATOM	5952	CA	THR	M	172	-42.266	158.087	345.655	1	80.8	A	C
ATOM	5953	CB	THR	M	172	-42.317	156.541	345.642	1	78.68		C
ATOM	5954	OG1	THR	M	172	-42.785	156.051	346.905	1	84.45		O
ATOM	5955	CG2	THR	M	172	-40.937	155.967	345.357	1	76.97		C
ATOM	5956	C	THR	M	172	-43.683	158.66	345.797	1	82.36	A	C
ATOM	5957	O	THR	M	172	-44.171	159.302	344.87	1	84.43	A	O
ATOM	5958	N	SER	M	173	-44.36	158.432	346.924	1	80.67	A	N
ATOM	5959	CA	SER	M	173	-45.776	158.812	347.014	1	78.16	A	C
ATOM	5960	CB	SER	M	173	-46.406	158.352	348.315	1	76.27	A	C
ATOM	5961	OG	SER	M	173	-45.684	158.862	349.404	1	77.67	A	O
ATOM	5962	C	SER	M	173	-45.914	160.319	346.855	1	79.94	A	C
ATOM	5963	O	SER	M	173	-45.128	161.07	347.425	1	74.51	A	O
ATOM	5964	N	GLY	M	174	-46.888	160.734	346.038	1	80.82	A	N
ATOM	5965	CA	GLY	M	174	-47.053	162.123	345.638	1	78.76	A	C
ATOM	5966	C	GLY	M	174	-46.224	162.539	344.43	1	82.45	A	C
ATOM	5967	O	GLY	M	174	-46.389	163.662	343.933	1	87.36	A	O
ATOM	5968	N	VAL	M	175	-45.331	161.67	343.948	1	77.04	A	N
ATOM	5969	CA	VAL	M	175	-44.62	161.932	342.694	1	76.82	A	C
ATOM	5970	CB	VAL	M	175	-43.409	160.972	342.465	1	74.97	A	C
ATOM	5971	CG1	VAL	M	175	-42.779	161.169	341.085	1	74.5	A	C
ATOM	5972	CG2	VAL	M	175	-42.341	161.169	343.538	1	75.08	A	C
ATOM	5973	C	VAL	M	175	-45.624	161.8	341.543	1	76.4	A	C
ATOM	5974	O	VAL	M	175	-46.52	160.951	341.579	1	76.38	A	O
ATOM	5975	N	HIS	M	176	-45.485	162.682	340.558	1	76.6	A	N
ATOM	5976	CA	HIS	M	176	-46.131	162.542	339.256	1	73.67	A	C
ATOM	5977	CB	HIS	M	176	-47.39	163.407	339.151	1	73.26	A	C
ATOM	5978	CG	HIS	M	176	-48.526	162.964	340.024	1	78.13	A	C
ATOM	5979	ND1	HIS	M	176	-48.774	161.642	340.331	1	84.68	A	N
ATOM	5980	CE1	HIS	M	176	-49.85	161.564	341.096	1	87.55	A	C
ATOM	5981	NE2	HIS	M	176	-50.327	162.783	341.272	1	85.02	A	N
ATOM	5982	CD2	HIS	M	176	-49.518	163.676	340.61	1	83.32	A	C
ATOM	5983	C	HIS	M	176	-45.123	162.985	338.207	1	73.02	A	C

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ATOM	5984	O	HIS	M	176	-44.856	164.179	338.077	1	72.4	A	O
ATOM	5985	N	THR	M	177	-44.544	162.022	337.489	1	75.93	A	N
ATOM	5986	CA	THR	M	177	-43.664	162.314	336.353	1	77.36	A	C
ATOM	5987	CB	THR	M	177	-42.52	161.308	336.278	1	72.21	A	C
ATOM	5988	OG1	THR	M	177	-41.936	161.198	337.578	1	74.99	A	O
ATOM	5989	CG2	THR	M	177	-41.458	161.755	335.27	1	69.13	A	C
ATOM	5990	C	THR	M	177	-44.467	162.324	335.042	1	84.34	A	C
ATOM	5991	O	THR	M	177	-45.069	161.315	334.649	1	90.7	A	O
ATOM	5992	N	PHE	M	178	-44.471	163.476	334.374	1	86.02	A	N
ATOM	5993	CA	PHE	M	178	-45.298	163.674	333.186	1	84.83	A	C
ATOM	5994	CB	PHE	M	178	-45.631	165.16	332.998	1	85.32	A	C
ATOM	5995	CG	PHE	M	178	-46.613	165.662	334.004	1	85.23	A	C
ATOM	5996	CD1	PHE	M	178	-47.925	165.224	333.957	1	84.5	A	C
ATOM	5997	CE1	PHE	M	178	-48.85	165.647	334.886	1	81.46	A	C
ATOM	5998	CZ	PHE	M	178	-48.475	166.507	335.895	1	84.97	A	C
ATOM	5999	CE2	PHE	M	178	-47.16	166.944	335.967	1	87.4	A	C
ATOM	6000	CD2	PHE	M	178	-46.234	166.518	335.026	1	86.49	A	C
ATOM	6001	C	PHE	M	178	-44.678	163.073	331.923	1	83.24	A	C
ATOM	6002	O	PHE	M	178	-43.458	162.951	331.817	1	89.31	A	O
ATOM	6003	N	PRO	M	179	-45.519	162.674	330.966	1	78.14	A	N
ATOM	6004	CA	PRO	M	179	-44.944	162.18	329.734	1	74.57	A	C
ATOM	6005	CB	PRO	M	179	-46.12	161.5	329.04	1	81.43	A	C
ATOM	6006	CG	PRO	M	179	-47.168	161.335	330.096	1	83.83	A	C
ATOM	6007	CD	PRO	M	179	-46.98	162.507	330.984	1	80.85	A	C
ATOM	6008	C	PRO	M	179	-44.454	163.337	328.913	1	72.45	A	C
ATOM	6009	O	PRO	M	179	-45.133	164.354	328.846	1	69.37	A	O
ATOM	6010	N	ALA	M	180	-43.293	163.157	328.286	1	74.27	A	N
ATOM	6011	CA	ALA	M	180	-42.612	164.205	327.52	1	73.46	A	C
ATOM	6012	CB	ALA	M	180	-41.28	163.696	326.981	1	71.27	A	C
ATOM	6013	C	ALA	M	180	-43.454	164.746	326.369	1	82.44	A	C
ATOM	6014	O	ALA	M	180	-44.445	164.128	325.956	1	81.48	A	O
ATOM	6015	N	VAL	M	181	-43.042	165.918	325.885	1	89.09	A	N
ATOM	6016	CA	VAL	M	181	-43.668	166.605	324.763	1	93.81	A	C
ATOM	6017	CB	VAL	M	181	-44.439	167.868	325.218	1	91.67	A	C
ATOM	6018	CG1	VAL	M	181	-45.171	168.501	324.033	1	96.56	A	C
ATOM	6019	CG2	VAL	M	181	-45.422	167.54	326.344	1	89.35	A	C
ATOM	6020	C	VAL	M	181	-42.551	167.03	323.823	1	108.62	A	C
ATOM	6021	O	VAL	M	181	-41.451	167.341	324.285	1	112.91	A	O
ATOM	6022	N	LEU	M	182	-42.836	167.031	322.516	1	116.47	A	N
ATOM	6023	CA	LEU	M	182	-41.913	167.546	321.495	1	113.76	A	C
ATOM	6024	CB	LEU	M	182	-41.868	166.604	320.285	1	103.27	A	C
ATOM	6025	C	LEU	M	182	-42.351	168.944	321.051	1	115.13	A	C
ATOM	6026	O	LEU	M	182	-43.486	169.13	320.606	1	110.74	A	O
ATOM	6027	N	GLN	M	183	-41.467	169.927	321.213	1	120.39	A	N
ATOM	6028	CA	GLN	M	183	-41.618	171.21	320.53	1	125.5	A	C

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ATOM	6029	CB	GLN	M	183	-41.302	172.387	321.475	1	131.1	A	C
ATOM	6030	CG	GLN	M	183	-41.507	173.809	320.915	1	134.65	A	C
ATOM	6031	CD	GLN	M	183	-42.871	174.076	320.255	1	132.02	A	C
ATOM	6032	OE1	GLN	M	183	-43.131	173.623	319.134	1	124.5	A	O
ATOM	6033	NE2	GLN	M	183	-43.724	174.853	320.923	1	126.46	A	N
ATOM	6034	C	GLN	M	183	-40.697	171.221	319.318	1	121.03	A	C
ATOM	6035	O	GLN	M	183	-39.78	170.398	319.212	1	105.78	A	O
ATOM	6036	N	SER	M	184	-41.008	172.123	318.388	1	121.74	A	N
ATOM	6037	CA	SER	M	184	-40.137	172.543	317.292	1	124.92	A	C
ATOM	6038	CB	SER	M	184	-40.394	174.021	316.973	1	131.7	A	C
ATOM	6039	OG	SER	M	184	-41.778	174.326	316.969	1	141.64	A	O
ATOM	6040	C	SER	M	184	-38.652	172.385	317.574	1	121.17	A	C
ATOM	6041	O	SER	M	184	-38.196	172.679	318.675	1	117.71	A	O
ATOM	6042	N	SER	M	185	-37.921	171.95	316.548	1	127.06	A	N
ATOM	6043	CA	SER	M	185	-36.475	171.653	316.591	1	130.02	A	C
ATOM	6044	CB	SER	M	185	-35.676	172.672	317.442	1	129.13	A	C
ATOM	6045	OG	SER	M	185	-35.847	172.48	318.837	1	115.54		O
ATOM	6046	C	SER	M	185	-36.153	170.194	316.98	1	127.6	A	C
ATOM	6047	O	SER	M	185	-34.984	169.786	316.924	1	121.66	A	O
ATOM	6048	N	GLY	M	186	-37.182	169.413	317.332	1	124.93	A	N
ATOM	6049	CA	GLY	M	186	-37.033	167.983	317.629	1	127.76	A	C
ATOM	6050	C	GLY	M	186	-36.461	167.695	319.007	1	126.91	A	C
ATOM	6051	O	GLY	M	186	-35.663	166.761	319.168	1	126.77	A	O
ATOM	6052	N	LEU	M	187	-36.88	168.491	319.997	1	122.24	A	N
ATOM	6053	CA	LEU	M	187	-36.366	168.409	321.369	1	110.21	A	C
ATOM	6054	CB	LEU	M	187	-35.486	169.631	321.695	1	103.12	A	C
ATOM	6055	CG	LEU	M	187	-33.984	169.616	321.331	1	100.11	A	C
ATOM	6056	CD1	LEU	M	187	-33.304	168.29	321.634	1	102.12	A	C
ATOM	6057	CD2	LEU	M	187	-33.727	169.971	319.879	1	102.65	A	C
ATOM	6058	C	LEU	M	187	-37.501	168.254	322.401	1	103.86	A	C
ATOM	6059	O	LEU	M	187	-38.482	169.02	322.411	1	91.45	A	O
ATOM	6060	N	TYR	M	188	-37.333	167.249	323.262	1	96.84	A	N
ATOM	6061	CA	TYR	M	188	-38.332	166.86	324.243	1	94.58	A	C
ATOM	6062	CB	TYR	M	188	-38.216	165.373	324.585	1	98.8	A	C
ATOM	6063	CG	TYR	M	188	-38.454	164.39	323.464	1	99.53	A	C
ATOM	6064	CD1	TYR	M	188	-39.751	164.09	323.037	1	99.47	A	C
ATOM	6065	CE1	TYR	M	188	-39.972	163.161	322.029	1	99.17	A	C
ATOM	6066	CZ	TYR	M	188	-38.89	162.509	321.454	1	100.73	A	C
ATOM	6067	OH	TYR	M	188	-39.101	161.592	320.466	1	108.76	A	O
ATOM	6068	CE2	TYR	M	188	-37.599	162.778	321.864	1	98.58	A	C
ATOM	6069	CD2	TYR	M	188	-37.385	163.705	322.869	1	96.9	A	C
ATOM	6070	C	TYR	M	188	-38.163	167.629	325.549	1	91.57	A	C
ATOM	6071	O	TYR	M	188	-37.058	168.104	325.883	1	80.83	A	O
ATOM	6072	N	SER	M	189	-39.26	167.705	326.3	1	82.71	A	N
ATOM	6073	CA	SER	M	189	-39.257	168.341	327.6	1	89.45	A	C

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ATOM	6074	CB	SER	M	189	-39.488	169.839	327.469	1	93.95	A	C
ATOM	6075	OG	SER	M	189	-38.334	170.463	326.933	1	102.34		O
ATOM	6076	C	SER	M	189	-40.294	167.724	328.521	1	97.07	A	C
ATOM	6077	O	SER	M	189	-41.457	167.544	328.147	1	94.64	A	O
ATOM	6078	N	LEU	M	190	-39.84	167.447	329.741	1	101.38	A	N
ATOM	6079	CA	LEU	M	190	-40.538	166.629	330.708	1	101.89	A	C
ATOM	6080	CB	LEU	M	190	-39.819	165.286	330.754	1	104.05	A	C
ATOM	6081	CG	LEU	M	190	-40.452	164.161	331.566	1	115.59	A	C
ATOM	6082	CD1	LEU	M	190	-40.271	162.826	330.854	1	118.21	A	C
ATOM	6083	CD2	LEU	M	190	-39.895	164.098	332.983	1	121.29	A	C
ATOM	6084	C	LEU	M	190	-40.488	167.343	332.065	1	104.14	A	C
ATOM	6085	O	LEU	M	190	-39.462	167.944	332.397	1	104.51	A	O
ATOM	6086	N	SER	M	191	-41.584	167.287	332.831	1	99.39	A	N
ATOM	6087	CA	SER	M	191	-41.654	167.908	334.168	1	100.56	A	C
ATOM	6088	CB	SER	M	191	-42.667	169.052	334.166	1	103.69	A	C
ATOM	6089	OG	SER	M	191	-42.435	169.927	333.085	1	107.23	A	O
ATOM	6090	C	SER	M	191	-42.021	166.905	335.279	1	109.38	A	C
ATOM	6091	O	SER	M	191	-43.184	166.503	335.412	1	107.95	A	O
ATOM	6092	N	SER	M	192	-41.028	166.513	336.084	1	108.11	A	N
ATOM	6093	CA	SER	M	192	-41.262	165.651	337.256	1	102.43	A	C
ATOM	6094	CB	SER	M	192	-40.043	164.77	337.543	1	103.12	A	C
ATOM	6095	OG	SER	M	192	-40.421	163.566	338.192	1	102.53	A	O
ATOM	6096	C	SER	M	192	-41.599	166.516	338.47	1	96.75	A	C
ATOM	6097	O	SER	M	192	-40.934	167.514	338.731	1	105.94	A	O
ATOM	6098	N	VAL	M	193	-42.621	166.105	339.212	1	93.82	A	N
ATOM	6099	CA	VAL	M	193	-43.268	166.932	340.228	1	91.44	A	C
ATOM	6100	CB	VAL	M	193	-44.523	167.593	339.601	1	96.57		C
ATOM	6101	CG1	VAL	M	193	-45.558	168.01	340.638	1	99.06		C
ATOM	6102	CG2	VAL	M	193	-44.123	168.777	338.723	1	96		C
ATOM	6103	C	VAL	M	193	-43.629	166.058	341.443	1	98.3	A	C
ATOM	6104	O	VAL	M	193	-43.989	164.888	341.282	1	100.7	A	O
ATOM	6105	N	VAL	M	194	-43.538	166.637	342.646	1	102.35	A	N
ATOM	6106	CA	VAL	M	194	-43.829	165.927	343.908	1	101.11	A	C
ATOM	6107	CB	VAL	M	194	-42.534	165.331	344.518	1	106	A	C
ATOM	6108	CG1	VAL	M	194	-41.522	166.419	344.868	1	107.5	A	C
ATOM	6109	CG2	VAL	M	194	-42.836	164.436	345.72	1	105.97	A	C
ATOM	6110	C	VAL	M	194	-44.554	166.842	344.901	1	97.71	A	C
ATOM	6111	O	VAL	M	194	-44.426	168.062	344.818	1	92.34	A	O
ATOM	6112	N	THR	M	195	-45.322	166.246	345.818	1	97.34	A	N
ATOM	6113	CA	THR	M	195	-46.185	166.992	346.738	1	95.04	A	C
ATOM	6114	CB	THR	M	195	-47.652	166.952	346.247	1	94.58	A	C
ATOM	6115	OG1	THR	M	195	-48.297	168.174	346.594	1	93.36	A	O
ATOM	6116	CG2	THR	M	195	-48.457	165.752	346.801	1	94.01	A	C
ATOM	6117	C	THR	M	195	-46.051	166.502	348.185	1	100.63	A	C
ATOM	6118	O	THR	M	195	-46.045	165.301	348.45	1	103.57	A	O

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ATOM	6119	N	VAL	M	196	-45.977	167.454	349.114	1	108.21	A	N
ATOM	6120	CA	VAL	M	196	-45.498	167.213	350.482	1	104.77	A	C
ATOM	6121	CB	VAL	M	196	-44.041	167.733	350.665	1	98.24	A	C
ATOM	6122	CG1	VAL	M	196	-43.056	166.909	349.839	1	96.56	A	C
ATOM	6123	CG2	VAL	M	196	-43.923	169.219	350.324	1	90.82	A	C
ATOM	6124	C	VAL	M	196	-46.372	167.919	351.516	1	114.55	A	C
ATOM	6125	O	VAL	M	196	-47.229	168.733	351.151	1	118.55	A	O
ATOM	6126	N	PRO	M	197	-46.155	167.612	352.816	1	120.83	A	N
ATOM	6127	CA	PRO	M	197	-46.584	168.552	353.859	1	117.03	A	C
ATOM	6128	CB	PRO	M	197	-46.369	167.753	355.15	1	113.2	A	C
ATOM	6129	CG	PRO	M	197	-45.297	166.766	354.815	1	107.6	A	C
ATOM	6130	CD	PRO	M	197	-45.569	166.383	353.396	1	112.23	A	C
ATOM	6131	C	PRO	M	197	-45.685	169.805	353.807	1	116.05	A	C
ATOM	6132	O	PRO	M	197	-44.472	169.661	353.623	1	120.13	A	O
ATOM	6133	N	SER	M	198	-46.259	171.007	353.936	1	112.52	A	N
ATOM	6134	CA	SER	M	198	-45.477	172.263	353.801	1	115.22	A	C
ATOM	6135	CB	SER	M	198	-46.392	173.5	353.662	1	108.13	A	C
ATOM	6136	OG	SER	M	198	-47.524	173.433	354.508	1	105.99	A	O
ATOM	6137	C	SER	M	198	-44.452	172.45	354.938	1	123.46	A	C
ATOM	6138	O	SER	M	198	-43.337	172.952	354.717	1	117.35	A	O
ATOM	6139	N	SER	M	199	-44.844	172.036	356.144	1	125.63	A	N
ATOM	6140	CA	SER	M	199	-43.928	171.907	357.278	1	125.44	A	C
ATOM	6141	CB	SER	M	199	-44.728	171.607	358.546	1	121.22	A	C
ATOM	6142	OG	SER	M	199	-45.531	170.449	358.365	1	114.07	A	O
ATOM	6143	C	SER	M	199	-42.901	170.78	357.034	1	129.88	A	C
ATOM	6144	O	SER	M	199	-43.266	169.601	357.056	1	131.66	A	O
ATOM	6145	N	SER	M	200	-41.633	171.171	356.852	1	126.01	A	N
ATOM	6146	CA	SER	M	200	-40.483	170.316	356.438	1	127.73	A	C
ATOM	6147	CB	SER	M	200	-40.821	168.821	356.251	1	128.55	A	C
ATOM	6148	OG	SER	M	200	-39.651	168.063	355.96	1	130.52		O
ATOM	6149	C	SER	M	200	-39.783	170.847	355.168	1	129.11	A	C
ATOM	6150	O	SER	M	200	-38.762	170.281	354.744	1	115.98	A	O
ATOM	6151	N	LEU	M	201	-40.326	171.914	354.569	1	130.41	A	N
ATOM	6152	CA	LEU	M	201	-39.683	172.612	353.447	1	128.86	A	C
ATOM	6153	CB	LEU	M	201	-40.617	173.692	352.893	1	130.52		C
ATOM	6154	C	LEU	M	201	-38.315	173.226	353.804	1	130.47	A	C
ATOM	6155	O	LEU	M	201	-37.509	173.499	352.911	1	135.33	A	O
ATOM	6156	N	GLY	M	202	-38.074	173.466	355.095	1	126.02	A	N
ATOM	6157	CA	GLY	M	202	-36.726	173.715	355.615	1	118.97	A	C
ATOM	6158	C	GLY	M	202	-36.006	172.41	355.933	1	119.42	A	C
ATOM	6159	O	GLY	M	202	-34.847	172.223	355.55	1	119.45	A	O
ATOM	6160	N	THR	M	203	-36.706	171.51	356.629	1	116.55	A	N
ATOM	6161	CA	THR	M	203	-36.15	170.234	357.116	1	115.89	A	C
ATOM	6162	CB	THR	M	203	-37.19	169.457	357.962	1	109.93		C
ATOM	6163	C	THR	M	203	-35.611	169.28	356.033	1	119.61	A	C

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ATOM	6164	O	THR	M	203	-34.404	169.019	355.998	1	112.66	A	O
ATOM	6165	N	GLN	M	204	-36.495	168.76	355.171	1	119.47	A	N
ATOM	6166	CA	GLN	M	204	-36.134	167.684	354.219	1	111.25	A	C
ATOM	6167	CB	GLN	M	204	-37.381	166.911	353.777	1	109.61		C
ATOM	6168	C	GLN	M	204	-35.391	168.212	352.989	1	99.53	A	C
ATOM	6169	O	GLN	M	204	-35.783	169.222	352.417	1	99.95	A	O
ATOM	6170	N	THR	M	205	-34.322	167.523	352.598	1	92.37	A	N
ATOM	6171	CA	THR	M	205	-33.52	167.896	351.432	1	103.1	A	C
ATOM	6172	CB	THR	M	205	-32.031	167.471	351.597	1	105.99	A	C
ATOM	6173	OG1	THR	M	205	-31.612	167.661	352.953	1	114.25	A	O
ATOM	6174	CG2	THR	M	205	-31.111	168.274	350.666	1	103.76	A	C
ATOM	6175	C	THR	M	205	-34.115	167.192	350.203	1	112.38	A	C
ATOM	6176	O	THR	M	205	-33.96	165.969	350.051	1	114.42	A	O
ATOM	6177	N	TYR	M	206	-34.794	167.954	349.337	1	109.18	A	N
ATOM	6178	CA	TYR	M	206	-35.456	167.389	348.145	1	104.03	A	C
ATOM	6179	CB	TYR	M	206	-36.863	167.982	347.969	1	100.33		C
ATOM	6180	CG	TYR	M	206	-37.83	167.634	349.098	1	102.71		C
ATOM	6181	CD1	TYR	M	206	-37.967	166.312	349.56	1	103.33		C
ATOM	6182	CE1	TYR	M	206	-38.848	165.991	350.587	1	103.82		C
ATOM	6183	CZ	TYR	M	206	-39.613	166.988	351.17	1	107.31		C
ATOM	6184	OH	TYR	M	206	-40.485	166.666	352.185	1	105.2		O
ATOM	6185	CE2	TYR	M	206	-39.503	168.302	350.732	1	105.99		C
ATOM	6186	CD2	TYR	M	206	-38.62	168.618	349.702	1	103.45		C
ATOM	6187	C	TYR	M	206	-34.621	167.581	346.878	1	100.49	A	C
ATOM	6188	O	TYR	M	206	-34.586	168.666	346.306	1	93.8	A	O
ATOM	6189	N	ILE	M	207	-33.972	166.5	346.45	1	103.18	A	N
ATOM	6190	CA	ILE	M	207	-33.065	166.492	345.294	1	111.73	A	C
ATOM	6191	CB	ILE	M	207	-31.6	166.155	345.713	1	117.87		C
ATOM	6192	CG1	ILE	M	207	-30.698	165.904	344.495	1	122.2		C
ATOM	6193	CD1	ILE	M	207	-29.217	166.069	344.789	1	125.09		C
ATOM	6194	CG2	ILE	M	207	-31.523	164.942	346.641	1	121.4		C
ATOM	6195	C	ILE	M	207	-33.61	165.507	344.244	1	114.33	A	C
ATOM	6196	O	ILE	M	207	-33.978	164.377	344.583	1	118.92	A	O
ATOM	6197	N	CYS	M	208	-33.674	165.946	342.984	1	112.31	A	N
ATOM	6198	CA	CYS	M	208	-34.218	165.132	341.886	1	111.06	A	C
ATOM	6199	CB	CYS	M	208	-35.211	165.942	341.043	1	108.31	A	C
ATOM	6200	SG	CYS	M	208	-34.608	166.61	339.481	1	97.49	A	S
ATOM	6201	C	CYS	M	208	-33.099	164.57	341.012	1	109.16	A	C
ATOM	6202	O	CYS	M	208	-32.215	165.307	340.547	1	105.41	A	O
ATOM	6203	N	ASN	M	209	-33.153	163.264	340.784	1	107.41	A	N
ATOM	6204	CA	ASN	M	209	-32.127	162.574	340.022	1	116.17	A	C
ATOM	6205	CB	ASN	M	209	-31.708	161.284	340.719	1	118.59	A	C
ATOM	6206	CG	ASN	M	209	-31.661	161.435	342.223	1	123.17	A	C
ATOM	6207	OD1	ASN	M	209	-32.511	160.898	342.935	1	122.37	A	O
ATOM	6208	ND2	ASN	M	209	-30.697	162.209	342.713	1	123.81	A	N

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ATOM	6209	C	ASN	M	209	-32.72	162.273	338.672	1	113.1	A	C
ATOM	6210	O	ASN	M	209	-33.828	161.737	338.6	1	113.96	A	O
ATOM	6211	N	VAL	M	210	-31.997	162.644	337.616	1	103.95	A	N
ATOM	6212	CA	VAL	M	210	-32.426	162.379	336.248	1	103.79	A	C
ATOM	6213	CB	VAL	M	210	-32.746	163.677	335.471	1	105.95	A	C
ATOM	6214	CG1	VAL	M	210	-33.758	164.53	336.228	1	104.1	A	C
ATOM	6215	CG2	VAL	M	210	-31.496	164.49	335.195	1	110.59	A	C
ATOM	6216	C	VAL	M	210	-31.344	161.581	335.546	1	98.92	A	C
ATOM	6217	O	VAL	M	210	-30.162	161.727	335.854	1	105.67	A	O
ATOM	6218	N	ASN	M	211	-31.758	160.737	334.611	1	94.58	A	N
ATOM	6219	CA	ASN	M	211	-30.836	159.886	333.873	1	95.23	A	C
ATOM	6220	CB	ASN	M	211	-30.798	158.49	334.508	1	94.05	A	C
ATOM	6221	CG	ASN	M	211	-29.525	157.715	334.18	1	90.82	A	C
ATOM	6222	OD1	ASN	M	211	-28.97	157.818	333.089	1	86.49	A	O
ATOM	6223	ND2	ASN	M	211	-29.072	156.911	335.129	1	93.36	A	N
ATOM	6224	C	ASN	M	211	-31.244	159.809	332.397	1	93.72	A	C
ATOM	6225	O	ASN	M	211	-32.402	159.535	332.073	1	87.25	A	O
ATOM	6226	N	HIS	M	212	-30.274	160.058	331.52	1	94.05	A	N
ATOM	6227	CA	HIS	M	212	-30.46	160.016	330.075	1	95.61	A	C
ATOM	6228	CB	HIS	M	212	-30.411	161.458	329.53	1	100.55	A	C
ATOM	6229	CG	HIS	M	212	-31.034	161.63	328.178	1	103.33	A	C
ATOM	6230	ND1	HIS	M	212	-30.488	162.434	327.202	1	103.45	A	N
ATOM	6231	CE1	HIS	M	212	-31.25	162.397	326.125	1	102.75	A	C
ATOM	6232	NE2	HIS	M	212	-32.27	161.597	326.366	1	102	A	N
ATOM	6233	CD2	HIS	M	212	-32.162	161.11	327.646	1	104.58	A	C
ATOM	6234	C	HIS	M	212	-29.366	159.108	329.488	1	90.53	A	C
ATOM	6235	O	HIS	M	212	-28.265	159.562	329.162	1	88.62	A	O
ATOM	6236	N	LYS	M	213	-29.674	157.81	329.421	1	94.26	A	N
ATOM	6237	CA	LYS	M	213	-28.783	156.778	328.835	1	98.26	A	C
ATOM	6238	CB	LYS	M	213	-29.507	155.427	328.698	1	100.71		C
ATOM	6239	CG	LYS	M	213	-29.22	154.437	329.811	1	106.45		C
ATOM	6240	CD	LYS	M	213	-30.131	153.218	329.703	1	110.39		C
ATOM	6241	CE	LYS	M	213	-31.496	153.466	330.341	1	113.37		C
ATOM	6242	NZ	LYS	M	213	-32.517	152.457	329.937	1	112.07		N
ATOM	6243	C	LYS	M	213	-28.185	157.126	327.466	1	98.15	A	C
ATOM	6244	O	LYS	M	213	-26.991	156.896	327.256	1	92.52	A	O
ATOM	6245	N	PRO	M	214	-29.011	157.642	326.525	1	98.53	A	N
ATOM	6246	CA	PRO	M	214	-28.454	157.966	325.214	1	98.76	A	C
ATOM	6247	CB	PRO	M	214	-29.662	158.516	324.435	1	103.42	A	C
ATOM	6248	CG	PRO	M	214	-30.733	158.756	325.445	1	98.67	A	C
ATOM	6249	CD	PRO	M	214	-30.485	157.734	326.502	1	101.16	A	C
ATOM	6250	C	PRO	M	214	-27.322	158.988	325.254	1	93.51	A	C
ATOM	6251	O	PRO	M	214	-26.216	158.691	324.805	1	93.25	A	O
ATOM	6252	N	SER	M	215	-27.594	160.166	325.804	1	93.17	A	N
ATOM	6253	CA	SER	M	215	-26.585	161.224	325.899	1	98.55	A	C

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ATOM	6254	CB	SER	M	215	-27.238	162.549	326.298	1	99.04	A	C
ATOM	6255	OG	SER	M	215	-27.886	162.414	327.552	1	95.94	A	O
ATOM	6256	C	SER	M	215	-25.487	160.897	326.908	1	101.17	A	C
ATOM	6257	O	SER	M	215	-24.393	161.456	326.824	1	105.78	A	O
ATOM	6258	N	ASN	M	216	-25.801	160.014	327.863	1	100.92	A	N
ATOM	6259	CA	ASN	M	216	-24.926	159.665	328.979	1	98	A	C
ATOM	6260	CB	ASN	M	216	-23.562	159.157	328.482	1	97.85		C
ATOM	6261	CG	ASN	M	216	-22.921	158.176	329.442	1	103.7		C
ATOM	6262	OD1	ASN	M	216	-23.194	158.195	330.649	1	99.25		O
ATOM	6263	ND2	ASN	M	216	-22.071	157.297	328.911	1	107.17		N
ATOM	6264	C	ASN	M	216	-24.786	160.84	329.95	1	95.19	A	C
ATOM	6265	O	ASN	M	216	-23.78	160.994	330.631	1	80.64	A	O
ATOM	6266	N	THR	M	217	-25.825	161.663	329.996	1	103.49	A	N
ATOM	6267	CA	THR	M	217	-25.923	162.762	330.937	1	112.86	A	C
ATOM	6268	CB	THR	M	217	-26.604	163.984	330.277	1	119.34	A	C
ATOM	6269	OG1	THR	M	217	-25.797	164.427	329.176	1	118.68	A	O
ATOM	6270	CG2	THR	M	217	-26.794	165.149	331.263	1	118.62	A	C
ATOM	6271	C	THR	M	217	-26.729	162.216	332.109	1	108.02	A	C
ATOM	6272	O	THR	M	217	-27.568	161.333	331.931	1	107.98	A	O
ATOM	6273	N	LYS	M	218	-26.449	162.73	333.302	1	107.86	A	N
ATOM	6274	CA	LYS	M	218	-27.065	162.242	334.537	1	108.53	A	C
ATOM	6275	CB	LYS	M	218	-26.526	160.852	334.872	1	106.5	A	C
ATOM	6276	CG	LYS	M	218	-26.874	160.294	336.247	1	104.59	A	C
ATOM	6277	CD	LYS	M	218	-26.46	158.833	336.362	1	108.33	A	C
ATOM	6278	CE	LYS	M	218	-25.001	158.553	335.983	1	101.84	A	C
ATOM	6279	NZ	LYS	M	218	-24.761	157.097	335.802	1	101.37	A	N
ATOM	6280	C	LYS	M	218	-26.758	163.226	335.652	1	102.65	A	C
ATOM	6281	O	LYS	M	218	-25.742	163.123	336.331	1	108.45	A	O
ATOM	6282	N	VAL	M	219	-27.635	164.203	335.808	1	102.61	A	N
ATOM	6283	CA	VAL	M	219	-27.446	165.235	336.805	1	102.68	A	C
ATOM	6284	CB	VAL	M	219	-27.741	166.66	336.236	1	105.19	A	C
ATOM	6285	CG1	VAL	M	219	-29.213	166.89	335.931	1	97.6	A	C
ATOM	6286	CG2	VAL	M	219	-27.23	167.75	337.175	1	112.38	A	C
ATOM	6287	C	VAL	M	219	-28.279	164.902	338.039	1	106.52	A	C
ATOM	6288	O	VAL	M	219	-29.301	164.202	337.957	1	107.51	A	O
ATOM	6289	N	ASP	M	220	-27.779	165.363	339.182	1	102.49	A	N
ATOM	6290	CA	ASP	M	220	-28.529	165.437	340.415	1	95.09	A	C
ATOM	6291	CB	ASP	M	220	-27.748	164.74	341.526	1	96.79	A	C
ATOM	6292	CG	ASP	M	220	-27.699	163.225	341.346	1	96.65	A	C
ATOM	6293	OD1	ASP	M	220	-28.726	162.663	340.908	1	103.28	A	O
ATOM	6294	OD2	ASP	M	220	-26.661	162.594	341.658	1	84.01	A	O
ATOM	6295	C	ASP	M	220	-28.729	166.928	340.683	1	95.41	A	C
ATOM	6296	O	ASP	M	220	-27.83	167.724	340.415	1	94.34	A	O
ATOM	6297	N	LYS	M	221	-29.91	167.303	341.178	1	96.36	A	N
ATOM	6298	CA	LYS	M	221	-30.314	168.71	341.289	1	101.73	A	C

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ATOM	6299	CB	LYS	M	221	-31.196	169.06	340.087	1	103.54	A	C
ATOM	6300	CG	LYS	M	221	-31.673	170.505	340.003	1	106.57	A	C
ATOM	6301	CD	LYS	M	221	-30.541	171.444	339.608	1	112.19	A	C
ATOM	6302	CE	LYS	M	221	-31.014	172.887	339.496	1	109.29	A	C
ATOM	6303	NZ	LYS	M	221	-29.878	173.848	339.526	1	106.44	A	N
ATOM	6304	C	LYS	M	221	-31.065	169.023	342.601	1	117.05	A	C
ATOM	6305	O	LYS	M	221	-32.239	168.661	342.744	1	120.77	A	O
ATOM	6306	N	LYS	M	222	-30.391	169.708	343.538	1	120.97	A	N
ATOM	6307	CA	LYS	M	222	-31.018	170.186	344.791	1	116.35	A	C
ATOM	6308	CB	LYS	M	222	-29.986	170.842	345.729	1	121.95	A	C
ATOM	6309	CG	LYS	M	222	-29.082	169.879	346.494	1	124.81	A	C
ATOM	6310	CD	LYS	M	222	-28.641	170.464	347.833	1	118.71	A	C
ATOM	6311	CE	LYS	M	222	-27.545	169.628	348.477	1	119.22	A	C
ATOM	6312	NZ	LYS	M	222	-27.481	169.846	349.947	1	120.66	A	N
ATOM	6313	C	LYS	M	222	-32.12	171.203	344.503	1	109.8	A	C
ATOM	6314	O	LYS	M	222	-31.957	172.052	343.63	1	112.01	A	O
ATOM	6315	N	VAL	M	223	-33.221	171.126	345.252	1	110.13	A	N
ATOM	6316	CA	VAL	M	223	-34.398	171.987	345.03	1	109.66	A	C
ATOM	6317	CB	VAL	M	223	-35.571	171.185	344.42	1	103.88		C
ATOM	6318	CG1	VAL	M	223	-36.696	172.119	343.987	1	109.95		C
ATOM	6319	CG2	VAL	M	223	-35.092	170.363	343.23	1	100.39		C
ATOM	6320	C	VAL	M	223	-34.834	172.697	346.331	1	115.62	A	C
ATOM	6321	O	VAL	M	223	-35.385	172.069	347.245	1	109.32	A	O
ATOM	6322	N	GLU	M	224	-34.614	174.017	346.362	1	119.95	A	N
ATOM	6323	CA	GLU	M	224	-34.707	174.862	347.567	1	116.09	A	C
ATOM	6324	CB	GLU	M	224	-33.313	174.998	348.214	1	117.17		C
ATOM	6325	CG	GLU	M	224	-32.176	175.272	347.215	1	115.25		C
ATOM	6326	CD	GLU	M	224	-30.843	175.595	347.863	1	112.32		C
ATOM	6327	OE1	GLU	M	224	-30.219	176.593	347.451	1	105.86		O
ATOM	6328	OE2	GLU	M	224	-30.41	174.856	348.774	1	117.09		O
ATOM	6329	C	GLU	M	224	-35.238	176.267	347.189	1	117.12	A	C
ATOM	6330	O	GLU	M	224	-34.769	176.853	346.206	1	110.97	A	O
ATOM	6331	N	PRO	M	225	-36.214	176.812	347.953	1	113.96	A	N
ATOM	6332	CA	PRO	M	225	-36.713	178.167	347.642	1	111.06	A	C
ATOM	6333	CB	PRO	M	225	-38.067	178.22	348.361	1	110.87	A	C
ATOM	6334	CG	PRO	M	225	-37.944	177.245	349.482	1	106.44	A	C
ATOM	6335	CD	PRO	M	225	-36.958	176.189	349.066	1	106.56	A	C
ATOM	6336	C	PRO	M	225	-35.772	179.269	348.146	1	112.74	A	C
ATOM	6337	O	PRO	M	225	-35.854	180.419	347.704	1	105.79	A	O
TER	6338		PRO	M	225							
ATOM	6339	N	ASP	N	23	-63.221	154.687	301.873	1	73.73	E	N
ATOM	6340	CA	ASP	N	23	-62.789	153.85	303.034	1	75.26	E	C
ATOM	6341	CB	ASP	N	23	-61.477	154.364	303.656	1	77.26	E	C
ATOM	6342	CG	ASP	N	23	-60.354	154.557	302.618	1	86.43	E	C
ATOM	6343	OD1	ASP	N	23	-60.61	154.467	301.388	1	86.05	E	O

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ATOM	6344	OD2	ASP	N	23	-59.201	154.806	303.043	1	90.99	E	O
ATOM	6345	C	ASP	N	23	-63.903	153.883	304.056	1	67	E	C
ATOM	6346	O	ASP	N	23	-64.387	154.955	304.4	1	68.54	E	O
ATOM	6347	N	VAL	N	24	-64.316	152.711	304.527	1	60.68	E	N
ATOM	6348	CA	VAL	N	24	-65.412	152.618	305.474	1	58.04	E	C
ATOM	6349	CB	VAL	N	24	-65.821	151.159	305.764	1	54.36	E	C
ATOM	6350	CG1	VAL	N	24	-66.944	151.087	306.802	1	52.89	E	C
ATOM	6351	CG2	VAL	N	24	-66.226	150.446	304.484	1	55.65	E	C
ATOM	6352	C	VAL	N	24	-64.955	153.296	306.772	1	68.96	E	C
ATOM	6353	O	VAL	N	24	-63.779	153.229	307.153	1	71.8	E	O
ATOM	6354	N	VAL	N	25	-65.891	153.972	307.429	1	72.71	E	N
ATOM	6355	CA	VAL	N	25	-65.645	154.566	308.718	1	67.91	E	C
ATOM	6356	CB	VAL	N	25	-66.073	156.043	308.755	1	70.17		C
ATOM	6357	CG1	VAL	N	25	-66.217	156.541	310.199	1	73.3		C
ATOM	6358	CG2	VAL	N	25	-65.068	156.898	307.984	1	66.28		C
ATOM	6359	C	VAL	N	25	-66.419	153.773	309.736	1	68.76	E	C
ATOM	6360	O	VAL	N	25	-67.561	153.396	309.502	1	63.11	E	O
ATOM	6361	N	LEU	N	26	-65.756	153.52	310.863	1	80.14	E	N
ATOM	6362	CA	LEU	N	26	-66.377	152.987	312.063	1	79.44	E	C
ATOM	6363	CB	LEU	N	26	-65.652	151.738	312.53	1	81.01		C
ATOM	6364	CG	LEU	N	26	-65.838	150.538	311.615	1	80.14		C
ATOM	6365	CD1	LEU	N	26	-64.721	149.535	311.827	1	82.11		C
ATOM	6366	CD2	LEU	N	26	-67.189	149.897	311.862	1	81.35		C
ATOM	6367	C	LEU	N	26	-66.306	154.06	313.135	1	77.25	E	C
ATOM	6368	O	LEU	N	26	-65.282	154.742	313.284	1	69.77	E	O
ATOM	6369	N	THR	N	27	-67.402	154.191	313.874	1	74.05	E	N
ATOM	6370	CA	THR	N	27	-67.6	155.284	314.806	1	72.84	E	C
ATOM	6371	CB	THR	N	27	-68.597	156.333	314.222	1	68.74	E	C
ATOM	6372	OG1	THR	N	27	-67.874	157.316	313.465	1	66.89	E	O
ATOM	6373	CG2	THR	N	27	-69.367	157.068	315.302	1	67.63	E	C
ATOM	6374	C	THR	N	27	-68.106	154.635	316.069	1	74.28	E	C
ATOM	6375	O	THR	N	27	-69.146	153.967	316.024	1	81.48	E	O
ATOM	6376	N	GLN	N	28	-67.39	154.836	317.187	1	74.61	E	N
ATOM	6377	CA	GLN	N	28	-67.734	154.154	318.445	1	76.64	E	C
ATOM	6378	CB	GLN	N	28	-66.68	153.106	318.831	1	75.62	E	C
ATOM	6379	CG	GLN	N	28	-65.262	153.379	318.368	1	76.27	E	C
ATOM	6380	CD	GLN	N	28	-64.253	152.296	318.752	1	78.36	E	C
ATOM	6381	OE1	GLN	N	28	-63.084	152.424	318.397	1	79.98	E	O
ATOM	6382	NE2	GLN	N	28	-64.675	151.242	319.484	1	71.19	E	N
ATOM	6383	C	GLN	N	28	-68.092	155.049	319.636	1	75.93	E	C
ATOM	6384	O	GLN	N	28	-67.586	156.161	319.754	1	82.41	E	O
ATOM	6385	N	THR	N	29	-68.934	154.503	320.523	1	71.31	E	N
ATOM	6386	CA	THR	N	29	-69.735	155.258	321.485	1	78.25	E	C
ATOM	6387	CB	THR	N	29	-71.217	155.285	321.027	1	80.61	E	C
ATOM	6388	OG1	THR	N	29	-71.339	156.105	319.862	1	85.1	E	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	6389	CG2	THR	N	29	-72.168	155.824	322.112	1	79.77	E	C
ATOM	6390	C	THR	N	29	-69.681	154.634	322.896	1	86.79	E	C
ATOM	6391	O	THR	N	29	-70.224	153.541	323.093	1	91.75	E	O
ATOM	6392	N	PRO	N	30	-69.094	155.31	323.893	1	86.6	E	N
ATOM	6393	CA	PRO	N	30	-68.483	156.639	323.796	1	87.15	E	C
ATOM	6394	CB	PRO	N	30	-68.706	157.179	325.194	1	84.66	E	C
ATOM	6395	CG	PRO	N	30	-68.51	155.98	326.057	1	80.61	E	C
ATOM	6396	CD	PRO	N	30	-69.027	154.8	325.274	1	81.54	E	C
ATOM	6397	C	PRO	N	30	-66.982	156.549	323.511	1	90.48	E	C
ATOM	6398	O	PRO	N	30	-66.437	155.449	323.493	1	104.01	E	O
ATOM	6399	N	LEU	N	31	-66.313	157.686	323.329	1	85.37	E	N
ATOM	6400	CA	LEU	N	31	-64.846	157.693	323.217	1	88.45	E	C
ATOM	6401	CB	LEU	N	31	-64.336	159.027	322.641	1	93.77	E	C
ATOM	6402	CG	LEU	N	31	-64.681	159.278	321.157	1	101.27	E	C
ATOM	6403	CD1	LEU	N	31	-64.387	160.727	320.769	1	96.42	E	C
ATOM	6404	CD2	LEU	N	31	-63.976	158.294	320.209	1	101.34	E	C
ATOM	6405	C	LEU	N	31	-64.133	157.367	324.54	1	83.06	E	C
ATOM	6406	O	LEU	N	31	-62.933	157.08	324.54	1	85.17	E	O
ATOM	6407	N	SER	N	32	-64.87	157.413	325.651	1	80.29	E	N
ATOM	6408	CA	SER	N	32	-64.333	157.132	326.982	1	78.4	E	C
ATOM	6409	CB	SER	N	32	-63.526	158.328	327.468	1	79.04	E	C
ATOM	6410	OG	SER	N	32	-64.281	159.517	327.296	1	76.56		O
ATOM	6411	C	SER	N	32	-65.479	156.89	327.955	1	74.99	E	C
ATOM	6412	O	SER	N	32	-66.338	157.742	328.103	1	74.74	E	O
ATOM	6413	N	LEU	N	33	-65.475	155.741	328.616	1	74.72	E	N
ATOM	6414	CA	LEU	N	33	-66.584	155.295	329.453	1	79.23	E	C
ATOM	6415	CB	LEU	N	33	-67.242	154.07	328.802	1	78.13	E	C
ATOM	6416	CG	LEU	N	33	-68.061	153.025	329.593	1	79.87	E	C
ATOM	6417	CD1	LEU	N	33	-69.564	153.314	329.61	1	79.34	E	C
ATOM	6418	CD2	LEU	N	33	-67.819	151.635	329.02	1	83.13	E	C
ATOM	6419	C	LEU	N	33	-66.049	154.964	330.847	1	86.07	E	C
ATOM	6420	O	LEU	N	33	-65.406	153.933	331.021	1	90.4	E	O
ATOM	6421	N	PRO	N	34	-66.278	155.851	331.839	1	92.43	E	N
ATOM	6422	CA	PRO	N	34	-65.895	155.495	333.206	1	88.99	E	C
ATOM	6423	CB	PRO	N	34	-65.858	156.854	333.911	1	91.42		C
ATOM	6424	CG	PRO	N	34	-65.65	157.86	332.828	1	85.3		C
ATOM	6425	CD	PRO	N	34	-66.476	157.311	331.711	1	92.77		C
ATOM	6426	C	PRO	N	34	-66.869	154.528	333.903	1	87.27	E	C
ATOM	6427	O	PRO	N	34	-68.084	154.661	333.739	1	78.42	E	O
ATOM	6428	N	VAL	N	35	-66.321	153.577	334.672	1	87.11	E	N
ATOM	6429	CA	VAL	N	35	-67.105	152.543	335.394	1	92.17	E	C
ATOM	6430	CB	VAL	N	35	-67.305	151.275	334.525	1	97.03	E	C
ATOM	6431	CG1	VAL	N	35	-68.248	151.559	333.369	1	101.75	E	C
ATOM	6432	CG2	VAL	N	35	-65.97	150.738	334.009	1	93.91	E	C
ATOM	6433	C	VAL	N	35	-66.45	152.099	336.715	1	86.18	E	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	6434	O	VAL	N	35	-65.278	152.394	336.956	1	87.11	E	O
ATOM	6435	N	ASN	N	36	-67.202	151.364	337.538	1	77.69	E	N
ATOM	6436	CA	ASN	N	36	-66.719	150.866	338.842	1	84.59	E	C
ATOM	6437	CB	ASN	N	36	-67.636	151.326	339.993	1	91.19		C
ATOM	6438	CG	ASN	N	36	-68.067	152.784	339.867	1	91.66		C
ATOM	6439	OD1	ASN	N	36	-67.239	153.701	339.904	1	84.96		O
ATOM	6440	ND2	ASN	N	36	-69.372	153.003	339.728	1	88.35		N
ATOM	6441	C	ASN	N	36	-66.644	149.336	338.863	1	83.43	E	C
ATOM	6442	O	ASN	N	36	-67.556	148.652	338.387	1	81.08	E	O
ATOM	6443	N	ILE	N	37	-65.575	148.805	339.45	1	80.73	E	N
ATOM	6444	CA	ILE	N	37	-65.321	147.363	339.432	1	79.2	E	C
ATOM	6445	CB	ILE	N	37	-64.042	147.004	340.236	1	79.95	E	C
ATOM	6446	CG1	ILE	N	37	-62.818	147.456	339.42	1	84.39	E	C
ATOM	6447	CD1	ILE	N	37	-61.481	147.325	340.122	1	89.67	E	C
ATOM	6448	CG2	ILE	N	37	-63.961	145.506	340.556	1	77.88	E	C
ATOM	6449	C	ILE	N	37	-66.553	146.622	339.934	1	83.81	E	C
ATOM	6450	O	ILE	N	37	-66.834	146.622	341.132	1	100.87	E	O
ATOM	6451	N	GLY	N	38	-67.297	146.026	339.005	1	80.17	E	N
ATOM	6452	CA	GLY	N	38	-68.527	145.302	339.328	1	81.94	E	C
ATOM	6453	C	GLY	N	38	-69.714	145.787	338.525	1	84.55	E	C
ATOM	6454	O	GLY	N	38	-70.693	145.056	338.374	1	93.49	E	O
ATOM	6455	N	ASP	N	39	-69.64	147.017	338.018	1	81.53	E	N
ATOM	6456	CA	ASP	N	39	-70.655	147.544	337.099	1	90.82	E	C
ATOM	6457	CB	ASP	N	39	-70.353	149.006	336.727	1	99.48		C
ATOM	6458	CG	ASP	N	39	-70.637	149.982	337.853	1	100.92		C
ATOM	6459	OD1	ASP	N	39	-71.101	149.553	338.933	1	109.53		O
ATOM	6460	OD2	ASP	N	39	-70.381	151.192	337.643	1	90.11		O
ATOM	6461	C	ASP	N	39	-70.749	146.77	335.791	1	89.18	E	C
ATOM	6462	O	ASP	N	39	-69.819	146.094	335.397	1	90.16	E	O
ATOM	6463	N	GLN	N	40	-71.885	146.915	335.115	1	95.45	E	N
ATOM	6464	CA	GLN	N	40	-72.042	146.484	333.724	1	96.19	E	C
ATOM	6465	CB	GLN	N	40	-73.529	146.225	333.404	1	100.61		C
ATOM	6466	CG	GLN	N	40	-73.783	145.132	332.369	1	109.47		C
ATOM	6467	CD	GLN	N	40	-74.866	145.497	331.355	1	120.48		C
ATOM	6468	OE1	GLN	N	40	-76.056	145.541	331.688	1	125.34		O
ATOM	6469	NE2	GLN	N	40	-74.456	145.753	330.103	1	116.99		N
ATOM	6470	C	GLN	N	40	-71.476	147.605	332.838	1	93.59	E	C
ATOM	6471	O	GLN	N	40	-71.251	148.723	333.323	1	96.49	E	O
ATOM	6472	N	ALA	N	41	-71.221	147.303	331.561	1	87.14	E	N
ATOM	6473	CA	ALA	N	41	-70.818	148.323	330.569	1	80.02	E	C
ATOM	6474	CB	ALA	N	41	-69.331	148.614	330.672	1	77.54	E	C
ATOM	6475	C	ALA	N	41	-71.202	147.93	329.13	1	78.78	E	C
ATOM	6476	O	ALA	N	41	-71.688	146.814	328.873	1	80.29	E	O
ATOM	6477	N	SER	N	42	-71.027	148.876	328.209	1	70.11	E	N
ATOM	6478	CA	SER	N	42	-71.491	148.706	326.847	1	68.99	E	C

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ATOM	6479	CB	SER	N	42	-73.022	148.773	326.811	1	68.96	E	C
ATOM	6480	OG	SER	N	42	-73.507	149.013	325.502	1	69.92	E	O
ATOM	6481	C	SER	N	42	-70.872	149.755	325.919	1	73.52	E	C
ATOM	6482	O	SER	N	42	-71.106	150.95	326.095	1	80.63	E	O
ATOM	6483	N	ILE	N	43	-70.077	149.292	324.949	1	70.99	E	N
ATOM	6484	CA	ILE	N	43	-69.545	150.123	323.867	1	69.62	E	C
ATOM	6485	CB	ILE	N	43	-68.051	149.815	323.576	1	70.77	E	C
ATOM	6486	CG1	ILE	N	43	-67.254	149.742	324.88	1	71.21	E	C
ATOM	6487	CD1	ILE	N	43	-65.863	149.197	324.691	1	72.72	E	C
ATOM	6488	CG2	ILE	N	43	-67.436	150.848	322.62	1	64.83	E	C
ATOM	6489	C	ILE	N	43	-70.38	149.816	322.625	1	69.75	E	C
ATOM	6490	O	ILE	N	43	-70.924	148.719	322.496	1	70.4	E	O
ATOM	6491	N	SER	N	44	-70.479	150.796	321.731	1	69.65	E	N
ATOM	6492	CA	SER	N	44	-71.232	150.677	320.497	1	75.96	E	C
ATOM	6493	CB	SER	N	44	-72.459	151.612	320.507	1	80.98	E	C
ATOM	6494	OG	SER	N	44	-73.637	150.899	320.851	1	81.99	E	O
ATOM	6495	C	SER	N	44	-70.336	151.009	319.323	1	76.1	E	C
ATOM	6496	O	SER	N	44	-69.439	151.826	319.429	1	67.25	E	O
ATOM	6497	N	CYS	N	45	-70.615	150.368	318.197	1	82.99	E	N
ATOM	6498	CA	CYS	N	45	-69.842	150.529	316.978	1	82.69	E	C
ATOM	6499	CB	CYS	N	45	-69.061	149.255	316.683	1	87.01	E	C
ATOM	6500	SG	CYS	N	45	-67.778	149.475	315.443	1	89.24	E	S
ATOM	6501	C	CYS	N	45	-70.834	150.714	315.882	1	79.52	E	C
ATOM	6502	O	CYS	N	45	-71.852	149.992	315.879	1	77.89	E	O
ATOM	6503	N	LYS	N	46	-70.541	151.647	314.962	1	72.33	E	N
ATOM	6504	CA	LYS	N	46	-71.434	151.94	313.821	1	70.35	E	C
ATOM	6505	CB	LYS	N	46	-72.312	153.153	314.128	1	68.27		C
ATOM	6506	CG	LYS	N	46	-73.503	152.813	315.026	1	70.33		C
ATOM	6507	CD	LYS	N	46	-74.222	154.071	315.487	1	77.79		C
ATOM	6508	CE	LYS	N	46	-75.515	153.77	316.233	1	79.59		C
ATOM	6509	NZ	LYS	N	46	-76.021	154.974	316.94	1	81.98		N
ATOM	6510	C	LYS	N	46	-70.686	152.107	312.499	1	68.56	E	C
ATOM	6511	O	LYS	N	46	-69.645	152.768	312.461	1	75.88	E	O
ATOM	6512	N	SER	N	47	-71.213	151.513	311.422	1	62.91	E	N
ATOM	6513	CA	SER	N	47	-70.52	151.533	310.124	1	68.93	E	C
ATOM	6514	CB	SER	N	47	-70.265	150.109	309.612	1	70.73	E	C
ATOM	6515	OG	SER	N	47	-69.545	150.144	308.38	1	65.82	E	O
ATOM	6516	C	SER	N	47	-71.227	152.323	309.021	1	69.6	E	C
ATOM	6517	O	SER	N	47	-72.44	152.355	308.94	1	72.49	E	O
ATOM	6518	N	THR	N	48	-70.422	152.889	308.133	1	76.95	E	N
ATOM	6519	CA	THR	N	48	-70.894	153.674	307.001	1	84.92	E	C
ATOM	6520	CB	THR	N	48	-69.935	154.857	306.753	1	82.04		C
ATOM	6521	OG1	THR	N	48	-68.675	154.362	306.269	1	81.22		O
ATOM	6522	CG2	THR	N	48	-69.725	155.669	308.048	1	78.29		C
ATOM	6523	C	THR	N	48	-70.969	152.802	305.73	1	92.29	E	C

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ATOM	6524	O	THR	N	48	-70.326	153.122	304.715	1	90.18	E	O
ATOM	6525	N	LYS	N	49	-71.778	151.734	305.806	1	87.75		N
ATOM	6526	CA	LYS	N	49	-71.83	150.589	304.847	1	86.29		C
ATOM	6527	CB	LYS	N	49	-70.54	150.369	304.024	1	83.48		C
ATOM	6528	CG	LYS	N	49	-70.521	150.987	302.631	1	84.66		C
ATOM	6529	CD	LYS	N	49	-69.097	151.302	302.186	1	88.15		C
ATOM	6530	CE	LYS	N	49	-69.042	152.102	300.887	1	93.4		C
ATOM	6531	NZ	LYS	N	49	-69.357	151.291	299.676	1	92.8		N
ATOM	6532	C	LYS	N	49	-72.028	149.351	305.7	1	81		C
ATOM	6533	O	LYS	N	49	-71.31	149.193	306.673	1	86.86		O
ATOM	6534	N	SER	N	50	-72.975	148.479	305.357	1	81.31		N
ATOM	6535	CA	SER	N	50	-73.131	147.202	306.076	1	79.91		C
ATOM	6536	CB	SER	N	50	-74.358	146.407	305.614	1	82.2		C
ATOM	6537	OG	SER	N	50	-74.322	145.066	306.099	1	71.71		O
ATOM	6538	C	SER	N	50	-71.899	146.341	305.877	1	79.89		C
ATOM	6539	O	SER	N	50	-71.147	146.537	304.922	1	72.52		O
ATOM	6540	N	LEU	N	51	-71.731	145.378	306.779	1	79.27		N
ATOM	6541	CA	LEU	N	51	-70.557	144.515	306.818	1	79.73		C
ATOM	6542	CB	LEU	N	51	-69.791	144.733	308.139	1	72.86		C
ATOM	6543	CG	LEU	N	51	-69.417	146.136	308.618	1	67.12		C
ATOM	6544	CD1	LEU	N	51	-68.911	146.078	310.052	1	63.29		C
ATOM	6545	CD2	LEU	N	51	-68.364	146.778	307.721	1	68.85		C
ATOM	6546	C	LEU	N	51	-70.945	143.033	306.721	1	81.63		C
ATOM	6547	O	LEU	N	51	-70.341	142.224	307.412	1	77.66		O
ATOM	6548	N	LEU	N	52	-71.892	142.672	305.842	1	80.05		N
ATOM	6549	CA	LEU	N	52	-72.39	141.279	305.757	1	75.18		C
ATOM	6550	CB	LEU	N	52	-73.92	141.265	305.752	1	71.61		C
ATOM	6551	CG	LEU	N	52	-74.719	139.976	305.492	1	71.01		C
ATOM	6552	CD1	LEU	N	52	-75.117	139.228	306.76	1	73.46		C
ATOM	6553	CD2	LEU	N	52	-75.947	140.304	304.647	1	73.42		C
ATOM	6554	C	LEU	N	52	-71.817	140.431	304.612	1	71.93		C
ATOM	6555	O	LEU	N	52	-71.868	139.217	304.68	1	83.16		O
ATOM	6556	N	ASN	N	53	-71.256	141.033	303.58	1	69.79		N
ATOM	6557	CA	ASN	N	53	-70.551	140.269	302.514	1	77.22		C
ATOM	6558	CB	ASN	N	53	-69.26	139.578	302.995	1	69.39		C
ATOM	6559	CG	ASN	N	53	-68.28	139.379	301.846	1	69.09		C
ATOM	6560	OD1	ASN	N	53	-67.538	140.277	301.509	1	68.31		O
ATOM	6561	ND2	ASN	N	53	-68.361	138.247	301.172	1	72.07		N
ATOM	6562	C	ASN	N	53	-71.344	139.239	301.696	1	75.14		C
ATOM	6563	O	ASN	N	53	-71.298	139.284	300.463	1	73.38		O
ATOM	6564	N	SER	N	54	-71.986	138.284	302.37	1	71.5		N
ATOM	6565	CA	SER	N	54	-72.735	137.189	301.733	1	80.62		C
ATOM	6566	CB	SER	N	54	-73.281	137.561	300.346	1	83.17		C
ATOM	6567	OG	SER	N	54	-72.23	137.531	299.384	1	71.36		O
ATOM	6568	C	SER	N	54	-71.913	135.911	301.585	1	85.56		C

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ATOM	6569	O	SER	N	54	-72.121	135.168	300.627	1	77.14		O
ATOM	6570	N	ASP	N	55	-71.011	135.661	302.543	1	88.41		N
ATOM	6571	CA	ASP	N	55	-70.319	134.382	302.667	1	78.68		C
ATOM	6572	CB	ASP	N	55	-68.957	134.515	303.373	1	81.53		C
ATOM	6573	CG	ASP	N	55	-68.167	135.674	302.916	1	79.04		C
ATOM	6574	OD1	ASP	N	55	-68.781	136.605	302.396	1	87.94		O
ATOM	6575	OD2	ASP	N	55	-66.94	135.669	303.093	1	73.32		O
ATOM	6576	C	ASP	N	55	-71.059	133.289	303.44	1	82.13		C
ATOM	6577	O	ASP	N	55	-70.465	132.244	303.607	1	85.03		O
ATOM	6578	N	GLU	N	56	-72.258	133.442	304.01	1	91.06		N
ATOM	6579	CA	GLU	N	56	-73.011	134.667	304.29	1	90.46		C
ATOM	6580	CB	GLU	N	56	-74.517	134.499	303.941	1	93.21		C
ATOM	6581	CG	GLU	N	56	-75.24	133.232	304.439	1	95.78		C
ATOM	6582	CD	GLU	N	56	-75.276	132.07	303.433	1	104.81		C
ATOM	6583	OE1	GLU	N	56	-75.164	130.913	303.87	1	111.64		O
ATOM	6584	OE2	GLU	N	56	-75.425	132.274	302.206	1	106.6		O
ATOM	6585	C	GLU	N	56	-72.778	135.053	305.757	1	89.9		C
ATOM	6586	O	GLU	N	56	-73.581	134.733	306.651	1	89.3		O
ATOM	6587	N	PHE	N	57	-71.642	135.703	306.009	1	77.98		N
ATOM	6588	CA	PHE	N	57	-71.341	136.148	307.356	1	77.66		C
ATOM	6589	CB	PHE	N	57	-70.716	135.007	308.186	1	82.6		C
ATOM	6590	CG	PHE	N	57	-69.333	134.531	307.756	1	76.45		C
ATOM	6591	CD1	PHE	N	57	-68.497	135.25	306.911	1	73.59		C
ATOM	6592	CE1	PHE	N	57	-67.246	134.767	306.586	1	76.92		C
ATOM	6593	CZ	PHE	N	57	-66.785	133.567	307.115	1	75.11		C
ATOM	6594	CE2	PHE	N	57	-67.586	132.847	307.978	1	73.25		C
ATOM	6595	CD2	PHE	N	57	-68.843	133.33	308.303	1	73.8		C
ATOM	6596	C	PHE	N	57	-70.587	137.468	307.462	1	77.4		C
ATOM	6597	O	PHE	N	57	-69.97	137.913	306.5	1	73.77		O
ATOM	6598	N	THR	N	58	-70.667	138.098	308.638	1	79.88		N
ATOM	6599	CA	THR	N	58	-70.317	139.52	308.794	1	78.05		C
ATOM	6600	CB	THR	N	58	-71.452	140.292	309.491	1	83.7		C
ATOM	6601	OG1	THR	N	58	-71.401	140.051	310.889	1	96.41		O
ATOM	6602	CG2	THR	N	58	-72.81	139.865	308.977	1	87.05		C
ATOM	6603	C	THR	N	58	-68.986	139.812	309.531	1	71.93		C
ATOM	6604	O	THR	N	58	-68.737	139.323	310.618	1	71.51		O
ATOM	6605	N	TYR	N	59	-68.18	140.676	308.935	1	68.17		N
ATOM	6606	CA	TYR	N	59	-66.786	140.844	309.272	1	68.45		C
ATOM	6607	CB	TYR	N	59	-65.966	141.083	307.986	1	72.57		C
ATOM	6608	CG	TYR	N	59	-65.763	139.857	307.131	1	74.19		C
ATOM	6609	CD1	TYR	N	59	-66.753	139.406	306.243	1	71.96		C
ATOM	6610	CE1	TYR	N	59	-66.551	138.285	305.451	1	72.84		C
ATOM	6611	CZ	TYR	N	59	-65.346	137.6	305.549	1	80.97		C
ATOM	6612	OH	TYR	N	59	-65.067	136.479	304.806	1	83.15		O
ATOM	6613	CE2	TYR	N	59	-64.366	138.029	306.42	1	83.95		C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	6614	CD2	TYR	N	59	-64.573	139.148	307.2	1	76.93		C
ATOM	6615	C	TYR	N	59	-66.584	142.021	310.218	1	68.75		C
ATOM	6616	O	TYR	N	59	-66.04	143.084	309.815	1	64.65		O
ATOM	6617	N	LEU	N	60	-67.012	141.83	311.467	1	63.07	E	N
ATOM	6618	CA	LEU	N	60	-66.632	142.732	312.565	1	62.4	E	C
ATOM	6619	CB	LEU	N	60	-67.824	143.547	313.057	1	68.54	E	C
ATOM	6620	CG	LEU	N	60	-67.469	144.524	314.192	1	68.75	E	C
ATOM	6621	CD1	LEU	N	60	-67.383	145.946	313.68	1	71.17	E	C
ATOM	6622	CD2	LEU	N	60	-68.457	144.399	315.333	1	66.84	E	C
ATOM	6623	C	LEU	N	60	-66.094	141.941	313.737	1	55.09	E	C
ATOM	6624	O	LEU	N	60	-66.777	141.038	314.221	1	47.07	E	O
ATOM	6625	N	ASP	N	61	-64.906	142.341	314.21	1	56.15	E	N
ATOM	6626	CA	ASP	N	61	-64.248	141.786	315.435	1	57.2	E	C
ATOM	6627	CB	ASP	N	61	-62.923	141.1	315.064	1	57.81		C
ATOM	6628	CG	ASP	N	61	-63.005	140.29	313.778	1	57.41		C
ATOM	6629	OD1	ASP	N	61	-63.95	139.511	313.634	1	55.22		O
ATOM	6630	OD2	ASP	N	61	-62.115	140.433	312.917	1	65.79		O
ATOM	6631	C	ASP	N	61	-63.92	142.878	316.474	1	53.75	E	C
ATOM	6632	O	ASP	N	61	-63.79	144.056	316.146	1	57.41	E	O
ATOM	6633	N	TRP	N	62	-63.731	142.468	317.715	1	58.34	E	N
ATOM	6634	CA	TRP	N	62	-63.4	143.393	318.827	1	65.28	E	C
ATOM	6635	CB	TRP	N	62	-64.415	143.246	319.964	1	68.07	E	C
ATOM	6636	CG	TRP	N	62	-65.735	143.853	319.636	1	71.76	E	C
ATOM	6637	CD1	TRP	N	62	-66.88	143.208	319.262	1	72.05	E	C
ATOM	6638	NE1	TRP	N	62	-67.881	144.119	319.036	1	72.13	E	N
ATOM	6639	CE2	TRP	N	62	-67.389	145.378	319.267	1	74.47	E	C
ATOM	6640	CD2	TRP	N	62	-66.035	145.241	319.641	1	73.28	E	C
ATOM	6641	CE3	TRP	N	62	-65.287	146.394	319.931	1	71.99	E	C
ATOM	6642	CZ3	TRP	N	62	-65.902	147.631	319.842	1	72.16	E	C
ATOM	6643	CH2	TRP	N	62	-67.252	147.741	319.47	1	74.65	E	C
ATOM	6644	CZ2	TRP	N	62	-68.014	146.629	319.173	1	75.09	E	C
ATOM	6645	C	TRP	N	62	-62.006	143.135	319.391	1	62.33	E	C
ATOM	6646	O	TRP	N	62	-61.696	142.008	319.791	1	59.95	E	O
ATOM	6647	N	TYR	N	63	-61.175	144.173	319.42	1	60.18	E	N
ATOM	6648	CA	TYR	N	63	-59.851	144.072	320.018	1	64.59	E	C
ATOM	6649	CB	TYR	N	63	-58.753	144.487	319.025	1	65.01		C
ATOM	6650	CG	TYR	N	63	-58.618	143.496	317.88	1	64.51		C
ATOM	6651	CD1	TYR	N	63	-59.48	143.556	316.785	1	63.79		C
ATOM	6652	CE1	TYR	N	63	-59.405	142.639	315.759	1	66.91		C
ATOM	6653	CZ	TYR	N	63	-58.455	141.634	315.803	1	68.63		C
ATOM	6654	OH	TYR	N	63	-58.381	140.749	314.743	1	66.28		O
ATOM	6655	CE2	TYR	N	63	-57.582	141.548	316.882	1	65.74		C
ATOM	6656	CD2	TYR	N	63	-57.668	142.473	317.913	1	61.88		C
ATOM	6657	C	TYR	N	63	-59.821	144.92	321.266	1	67.79	E	C
ATOM	6658	O	TYR	N	63	-60.631	145.837	321.412	1	71.41	E	O

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ATOM	6659	N	LEU	N	64	-58.916	144.562	322.181	1	71.29	E	N
ATOM	6660	CA	LEU	N	64	-58.573	145.378	323.358	1	68.49	E	C
ATOM	6661	CB	LEU	N	64	-59.021	144.683	324.641	1	69.38	E	C
ATOM	6662	CG	LEU	N	64	-58.325	145.046	325.961	1	75.72	E	C
ATOM	6663	CD1	LEU	N	64	-58.43	146.518	326.324	1	80.8	E	C
ATOM	6664	CD2	LEU	N	64	-58.939	144.213	327.072	1	77.72	E	C
ATOM	6665	C	LEU	N	64	-57.071	145.616	323.389	1	56.7	E	C
ATOM	6666	O	LEU	N	64	-56.31	144.692	323.165	1	59.87	E	O
ATOM	6667	N	GLN	N	65	-56.667	146.856	323.633	1	50.32	E	N
ATOM	6668	CA	GLN	N	65	-55.29	147.19	324	1	52.92	E	C
ATOM	6669	CB	GLN	N	65	-54.772	148.283	323.071	1	49.74	E	C
ATOM	6670	CG	GLN	N	65	-53.28	148.533	323.157	1	48.73	E	C
ATOM	6671	CD	GLN	N	65	-52.763	149.451	322.055	1	47.15	E	C
ATOM	6672	OE1	GLN	N	65	-53.505	150.235	321.457	1	53.02	E	O
ATOM	6673	NE2	GLN	N	65	-51.487	149.356	321.781	1	47	E	N
ATOM	6674	C	GLN	N	65	-55.231	147.638	325.482	1	54.15	E	C
ATOM	6675	O	GLN	N	65	-55.801	148.686	325.843	1	56.32	E	O
ATOM	6676	N	LYS	N	66	-54.592	146.825	326.336	1	54.77	E	N
ATOM	6677	CA	LYS	N	66	-54.355	147.185	327.763	1	54.04	E	C
ATOM	6678	CB	LYS	N	66	-54.263	145.973	328.694	1	51.32		C
ATOM	6679	CG	LYS	N	66	-55.348	144.94	328.448	1	54.45		C
ATOM	6680	CD	LYS	N	66	-55.717	144.119	329.683	1	54.42		C
ATOM	6681	CE	LYS	N	66	-55.197	142.689	329.689	1	54.56		C
ATOM	6682	NZ	LYS	N	66	-56.144	141.799	330.44	1	53.61		N
ATOM	6683	C	LYS	N	66	-53.065	147.984	327.881	1	53.45	E	C
ATOM	6684	O	LYS	N	66	-52.155	147.802	327.084	1	46	E	O
ATOM	6685	N	PRO	N	67	-52.973	148.864	328.888	1	60.39	E	N
ATOM	6686	CA	PRO	N	67	-51.851	149.815	328.897	1	63.54	E	C
ATOM	6687	CB	PRO	N	67	-51.957	150.454	330.271	1	59.83	E	C
ATOM	6688	CG	PRO	N	67	-53.422	150.415	330.555	1	59.71	E	C
ATOM	6689	CD	PRO	N	67	-53.901	149.107	330.007	1	59.7	E	C
ATOM	6690	C	PRO	N	67	-50.483	149.161	328.692	1	65.84	E	C
ATOM	6691	O	PRO	N	67	-50.202	148.116	329.289	1	79.42	E	O
ATOM	6692	N	GLY	N	68	-49.681	149.738	327.8	1	63.33	E	N
ATOM	6693	CA	GLY	N	68	-48.337	149.257	327.531	1	62.53	E	C
ATOM	6694	C	GLY	N	68	-48.242	147.949	326.775	1	65.64	E	C
ATOM	6695	O	GLY	N	68	-47.136	147.504	326.487	1	71.95	E	O
ATOM	6696	N	GLN	N	69	-49.385	147.344	326.434	1	65.51	E	N
ATOM	6697	CA	GLN	N	69	-49.436	146.052	325.759	1	58.46	E	C
ATOM	6698	CB	GLN	N	69	-50.497	145.146	326.389	1	60.35	E	C
ATOM	6699	CG	GLN	N	69	-50.289	144.814	327.854	1	64.7	E	C
ATOM	6700	CD	GLN	N	69	-51.171	143.666	328.315	1	72.52	E	C
ATOM	6701	OE1	GLN	N	69	-52.194	143.381	327.695	1	95.96	E	O
ATOM	6702	NE2	GLN	N	69	-50.784	142.999	329.401	1	74.63	E	N
ATOM	6703	C	GLN	N	69	-49.774	146.204	324.287	1	55.3	E	C

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ATOM	6704	O	GLN	N	69	-50.168	147.272	323.815	1	53.2	E	O
ATOM	6705	N	SER	N	70	-49.603	145.099	323.574	1	53.62	E	N
ATOM	6706	CA	SER	N	70	-50.13	144.931	322.244	1	47.96	E	C
ATOM	6707	CB	SER	N	70	-49.364	143.83	321.554	1	44.56	E	C
ATOM	6708	OG	SER	N	70	-47.993	144.135	321.652	1	43.8	E	O
ATOM	6709	C	SER	N	70	-51.594	144.557	322.357	1	49.09	E	C
ATOM	6710	O	SER	N	70	-52.005	143.994	323.366	1	50.93	E	O
ATOM	6711	N	PRO	N	71	-52.393	144.88	321.333	1	51.49	E	N
ATOM	6712	CA	PRO	N	71	-53.787	144.506	321.373	1	51.18	E	C
ATOM	6713	CB	PRO	N	71	-54.349	145.027	320.054	1	52.5	E	C
ATOM	6714	CG	PRO	N	71	-53.404	146.059	319.588	1	55.15	E	C
ATOM	6715	CD	PRO	N	71	-52.067	145.662	320.127	1	57.1	E	C
ATOM	6716	C	PRO	N	71	-53.939	143.016	321.375	1	54.1	E	C
ATOM	6717	O	PRO	N	71	-53.024	142.305	320.923	1	60.9	E	O
ATOM	6718	N	GLN	N	72	-55.092	142.564	321.859	1	48	E	N
ATOM	6719	CA	GLN	N	72	-55.481	141.171	321.807	1	48.43	E	C
ATOM	6720	CB	GLN	N	72	-55.351	140.576	323.193	1	52.61		C
ATOM	6721	CG	GLN	N	72	-56.353	141.11	324.218	1	54.43		C
ATOM	6722	CD	GLN	N	72	-55.719	141.391	325.557	1	56.23		C
ATOM	6723	OE1	GLN	N	72	-55.868	140.598	326.484	1	54.26		O
ATOM	6724	NE2	GLN	N	72	-54.978	142.524	325.664	1	58.07		N
ATOM	6725	C	GLN	N	72	-56.923	141.029	321.302	1	53.06	E	C
ATOM	6726	O	GLN	N	72	-57.751	141.933	321.431	1	59.66	E	O
ATOM	6727	N	LEU	N	73	-57.229	139.885	320.726	1	53.62	E	N
ATOM	6728	CA	LEU	N	73	-58.563	139.633	320.201	1	52.54	E	C
ATOM	6729	CB	LEU	N	73	-58.499	138.512	319.151	1	53.33		C
ATOM	6730	CG	LEU	N	73	-59.768	138.022	318.456	1	53.42		C
ATOM	6731	CD1	LEU	N	73	-60.342	139.113	317.562	1	54.14		C
ATOM	6732	CD2	LEU	N	73	-59.438	136.779	317.642	1	53.4		C
ATOM	6733	C	LEU	N	73	-59.453	139.227	321.356	1	56.27	E	C
ATOM	6734	O	LEU	N	73	-58.977	138.565	322.304	1	54.03	E	O
ATOM	6735	N	LEU	N	74	-60.734	139.622	321.277	1	59.47	E	N
ATOM	6736	CA	LEU	N	74	-61.756	139.243	322.286	1	57.69	E	C
ATOM	6737	CB	LEU	N	74	-62.292	140.46	323.027	1	52.52	E	C
ATOM	6738	CG	LEU	N	74	-61.227	141.25	323.761	1	55.48	E	C
ATOM	6739	CD1	LEU	N	74	-61.748	142.665	324.067	1	58.92	E	C
ATOM	6740	CD2	LEU	N	74	-60.756	140.484	325.003	1	53.75	E	C
ATOM	6741	C	LEU	N	74	-62.922	138.522	321.675	1	59.51	E	C
ATOM	6742	O	LEU	N	74	-63.254	137.399	322.07	1	63.61	E	O
ATOM	6743	N	ILE	N	75	-63.561	139.203	320.735	1	60.43	E	N
ATOM	6744	CA	ILE	N	75	-64.687	138.678	320.027	1	59.66	E	C
ATOM	6745	CB	ILE	N	75	-65.934	139.55	320.253	1	61.39	E	C
ATOM	6746	CG1	ILE	N	75	-66.386	139.458	321.706	1	64.22	E	C
ATOM	6747	CD1	ILE	N	75	-66.905	138.101	322.135	1	63.56	E	C
ATOM	6748	CG2	ILE	N	75	-67.08	139.151	319.331	1	64.97	E	C

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ATOM	6749	C	ILE	N	75	-64.263	138.728	318.582	1	58.84	E	C
ATOM	6750	O	ILE	N	75	-63.584	139.656	318.176	1	62.46	E	O
ATOM	6751	N	PHE	N	76	-64.649	137.71	317.828	1	56.86	E	N
ATOM	6752	CA	PHE	N	76	-64.495	137.68	316.383	1	52.44	E	C
ATOM	6753	CB	PHE	N	76	-63.448	136.627	315.977	1	50.27		C
ATOM	6754	CG	PHE	N	76	-63.864	135.186	316.234	1	48.04		C
ATOM	6755	CD1	PHE	N	76	-64.503	134.441	315.252	1	48.81		C
ATOM	6756	CE1	PHE	N	76	-64.861	133.119	315.474	1	49.01		C
ATOM	6757	CZ	PHE	N	76	-64.58	132.52	316.691	1	48.51		C
ATOM	6758	CE2	PHE	N	76	-63.944	133.248	317.673	1	46.6		C
ATOM	6759	CD2	PHE	N	76	-63.583	134.567	317.442	1	47.32		C
ATOM	6760	C	PHE	N	76	-65.857	137.357	315.771	1	57.12	E	C
ATOM	6761	O	PHE	N	76	-66.687	136.66	316.407	1	59.25	E	O
ATOM	6762	N	LEU	N	77	-66.088	137.865	314.555	1	53.57	E	N
ATOM	6763	CA	LEU	N	77	-67.269	137.526	313.796	1	57.37	E	C
ATOM	6764	CB	LEU	N	77	-67.199	136.042	313.403	1	63.08	E	C
ATOM	6765	CG	LEU	N	77	-67.921	135.465	312.18	1	67.64	E	C
ATOM	6766	CD1	LEU	N	77	-68.152	133.97	312.391	1	62.19	E	C
ATOM	6767	CD2	LEU	N	77	-69.229	136.179	311.857	1	71.5	E	C
ATOM	6768	C	LEU	N	77	-68.509	137.869	314.646	1	61.54	E	C
ATOM	6769	O	LEU	N	77	-69.368	137.025	314.922	1	63.21	E	O
ATOM	6770	N	VAL	N	78	-68.542	139.124	315.097	1	65.24	E	N
ATOM	6771	CA	VAL	N	78	-69.67	139.74	315.816	1	67.09	E	C
ATOM	6772	CB	VAL	N	78	-71.041	139.568	315.114	1	68.95	E	C
ATOM	6773	CG1	VAL	N	78	-72.126	140.347	315.847	1	71.01	E	C
ATOM	6774	CG2	VAL	N	78	-70.967	140.057	313.689	1	70.98	E	C
ATOM	6775	C	VAL	N	78	-69.825	139.301	317.258	1	65.36	E	C
ATOM	6776	O	VAL	N	78	-69.8	140.152	318.144	1	68.68	E	O
ATOM	6777	N	SER	N	79	-70.012	137.999	317.474	1	62.94	E	N
ATOM	6778	CA	SER	N	79	-70.52	137.462	318.732	1	60.62	E	C
ATOM	6779	CB	SER	N	79	-71.935	136.959	318.47	1	62.66	E	C
ATOM	6780	OG	SER	N	79	-71.964	135.951	317.466	1	57.78	E	O
ATOM	6781	C	SER	N	79	-69.722	136.326	319.37	1	65.46	E	C
ATOM	6782	O	SER	N	79	-70.146	135.806	320.399	1	72.65	E	O
ATOM	6783	N	ASN	N	80	-68.594	135.923	318.787	1	67.04	E	N
ATOM	6784	CA	ASN	N	80	-67.92	134.69	319.217	1	67.32	E	C
ATOM	6785	CB	ASN	N	80	-67.509	133.84	318.03	1	70.87		C
ATOM	6786	CG	ASN	N	80	-68.646	133.572	317.082	1	68.35		C
ATOM	6787	OD1	ASN	N	80	-69.046	134.455	316.316	1	65.02		O
ATOM	6788	ND2	ASN	N	80	-69.154	132.344	317.097	1	69.4		N
ATOM	6789	C	ASN	N	80	-66.679	135.003	319.995	1	65.19	E	C
ATOM	6790	O	ASN	N	80	-65.954	135.922	319.658	1	65.82	E	O
ATOM	6791	N	ARG	N	81	-66.409	134.198	321.008	1	65.83	E	N
ATOM	6792	CA	ARG	N	81	-65.391	134.53	321.982	1	66.77	E	C
ATOM	6793	CB	ARG	N	81	-65.887	134.248	323.415	1	73.05		C

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ATOM	6794	CG	ARG	N	81	-65.767	135.468	324.322	1	74.74		C
ATOM	6795	CD	ARG	N	81	-66.084	135.187	325.783	1	75.87		C
ATOM	6796	NE	ARG	N	81	-67.481	134.8	325.962	1	74.51		N
ATOM	6797	CZ	ARG	N	81	-67.929	133.568	326.201	1	78.78		C
ATOM	6798	NH1	ARG	N	81	-67.104	132.521	326.325	1	83.27		N
ATOM	6799	NH2	ARG	N	81	-69.239	133.382	326.325	1	79.38		N
ATOM	6800	C	ARG	N	81	-64.133	133.757	321.634	1	65.13	E	C
ATOM	6801	O	ARG	N	81	-64.129	132.515	321.573	1	59.32	E	O
ATOM	6802	N	PHE	N	82	-63.072	134.509	321.359	1	64.91	E	N
ATOM	6803	CA	PHE	N	82	-61.786	133.932	321.039	1	59.65	E	C
ATOM	6804	CB	PHE	N	82	-60.754	135.043	320.814	1	58.81		C
ATOM	6805	CG	PHE	N	82	-59.357	134.541	320.661	1	55.71		C
ATOM	6806	CD1	PHE	N	82	-59.031	133.687	319.625	1	55.92		C
ATOM	6807	CE1	PHE	N	82	-57.74	133.2	319.489	1	58.95		C
ATOM	6808	CZ	PHE	N	82	-56.765	133.566	320.406	1	57.26		C
ATOM	6809	CE2	PHE	N	82	-57.083	134.418	321.442	1	54.44		C
ATOM	6810	CD2	PHE	N	82	-58.373	134.901	321.564	1	54.81		C
ATOM	6811	C	PHE	N	82	-61.439	133.061	322.229	1	63.42	E	C
ATOM	6812	O	PHE	N	82	-61.567	133.509	323.368	1	70.03	E	O
ATOM	6813	N	SER	N	83	-61.08	131.805	321.975	1	66.89	E	N
ATOM	6814	CA	SER	N	83	-60.704	130.864	323.044	1	68.45	E	C
ATOM	6815	CB	SER	N	83	-59.956	129.651	322.467	1	72.11	E	C
ATOM	6816	OG	SER	N	83	-59.27	128.891	323.458	1	66.9	E	O
ATOM	6817	C	SER	N	83	-59.848	131.531	324.112	1	67.69	E	C
ATOM	6818	O	SER	N	83	-58.894	132.248	323.793	1	66.65	E	O
ATOM	6819	N	GLY	N	84	-60.228	131.312	325.371	1	67.82	E	N
ATOM	6820	CA	GLY	N	84	-59.499	131.849	326.524	1	69.87	E	C
ATOM	6821	C	GLY	N	84	-60.098	133.096	327.152	1	71.41	E	C
ATOM	6822	O	GLY	N	84	-59.763	133.432	328.278	1	76.22	E	O
ATOM	6823	N	VAL	N	85	-60.98	133.778	326.428	1	76.09	E	N
ATOM	6824	CA	VAL	N	85	-61.598	135.023	326.884	1	74.31	E	C
ATOM	6825	CB	VAL	N	85	-62.174	135.797	325.673	1	77.22	E	C
ATOM	6826	CG1	VAL	N	85	-63.076	136.963	326.071	1	78.54	E	C
ATOM	6827	CG2	VAL	N	85	-61.025	136.315	324.826	1	82.38	E	C
ATOM	6828	C	VAL	N	85	-62.691	134.716	327.924	1	75.14	E	C
ATOM	6829	O	VAL	N	85	-63.44	133.753	327.75	1	69.45	E	O
ATOM	6830	N	PRO	N	86	-62.802	135.546	328.991	1	76.01	E	N
ATOM	6831	CA	PRO	N	86	-63.777	135.248	330.043	1	74.29	E	C
ATOM	6832	CB	PRO	N	86	-63.4	136.227	331.166	1	77.34	E	C
ATOM	6833	CG	PRO	N	86	-62.158	136.931	330.736	1	71.9	E	C
ATOM	6834	CD	PRO	N	86	-62.1	136.818	329.261	1	73.02	E	C
ATOM	6835	C	PRO	N	86	-65.228	135.489	329.634	1	75.8	E	C
ATOM	6836	O	PRO	N	86	-65.508	136.518	329.017	1	71.67	E	O
ATOM	6837	N	ASP	N	87	-66.115	134.546	329.995	1	77.7	E	N
ATOM	6838	CA	ASP	N	87	-67.593	134.671	329.918	1	77.98	E	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	6839	CB	ASP	N	87	-68.232	134.057	331.17	1	82.21	E	C
ATOM	6840	CG	ASP	N	87	-68.314	132.557	331.129	1	87.2	E	C
ATOM	6841	OD1	ASP	N	87	-68.112	131.943	330.061	1	103.37	E	O
ATOM	6842	OD2	ASP	N	87	-68.604	131.982	332.195	1	87.13	E	O
ATOM	6843	C	ASP	N	87	-68.135	136.09	329.854	1	78.38	E	C
ATOM	6844	O	ASP	N	87	-68.955	136.403	329.006	1	88.73	E	O
ATOM	6845	N	ARG	N	88	-67.683	136.914	330.794	1	74.3	E	N
ATOM	6846	CA	ARG	N	88	-68.081	138.332	330.942	1	77.02	E	C
ATOM	6847	CB	ARG	N	88	-67.028	139.11	331.764	1	75.67	E	C
ATOM	6848	CG	ARG	N	88	-66.662	138.436	333.086	1	80.97	E	C
ATOM	6849	CD	ARG	N	88	-65.955	139.331	334.08	1	85.01	E	C
ATOM	6850	NE	ARG	N	88	-64.505	139.157	334.041	1	85.99	E	N
ATOM	6851	CZ	ARG	N	88	-63.663	139.845	333.274	1	83.91	E	C
ATOM	6852	NH1	ARG	N	88	-62.36	139.589	333.338	1	83.02	E	N
ATOM	6853	NH2	ARG	N	88	-64.104	140.779	332.442	1	86.13	E	N
ATOM	6854	C	ARG	N	88	-68.348	139.08	329.627	1	77.59	E	C
ATOM	6855	O	ARG	N	88	-69.356	139.794	329.51	1	85.71	E	O
ATOM	6856	N	PHE	N	89	-67.47	138.896	328.641	1	66.94	E	N
ATOM	6857	CA	PHE	N	89	-67.569	139.619	327.378	1	60.75	E	C
ATOM	6858	CB	PHE	N	89	-66.214	139.701	326.713	1	62.95	E	C
ATOM	6859	CG	PHE	N	89	-65.188	140.42	327.524	1	61.72	E	C
ATOM	6860	CD1	PHE	N	89	-64.417	139.734	328.462	1	62.09	E	C
ATOM	6861	CE1	PHE	N	89	-63.452	140.397	329.207	1	63.12	E	C
ATOM	6862	CZ	PHE	N	89	-63.236	141.76	329.011	1	62.96	E	C
ATOM	6863	CE2	PHE	N	89	-64	142.452	328.072	1	64.05	E	C
ATOM	6864	CD2	PHE	N	89	-64.968	141.781	327.335	1	61.2	E	C
ATOM	6865	C	PHE	N	89	-68.56	138.951	326.431	1	58.4	E	C
ATOM	6866	O	PHE	N	89	-68.75	137.727	326.484	1	50.34	E	O
ATOM	6867	N	SER	N	90	-69.192	139.771	325.584	1	60.91	E	N
ATOM	6868	CA	SER	N	90	-70.25	139.325	324.654	1	64.06	E	C
ATOM	6869	CB	SER	N	90	-71.617	139.29	325.34	1	64.86	E	C
ATOM	6870	OG	SER	N	90	-71.679	138.231	326.291	1	70.06		O
ATOM	6871	C	SER	N	90	-70.347	140.243	323.446	1	67.14	E	C
ATOM	6872	O	SER	N	90	-69.999	141.413	323.52	1	68.74	E	O
ATOM	6873	N	GLY	N	91	-70.845	139.704	322.339	1	65.42	E	N
ATOM	6874	CA	GLY	N	91	-71.035	140.486	321.128	1	61.44	E	C
ATOM	6875	C	GLY	N	91	-72.461	140.434	320.645	1	58.99	E	C
ATOM	6876	O	GLY	N	91	-73.232	139.551	321.014	1	64.48	E	O
ATOM	6877	N	SER	N	92	-72.796	141.387	319.795	1	61.8	E	N
ATOM	6878	CA	SER	N	92	-74.171	141.64	319.398	1	69.36	E	C
ATOM	6879	CB	SER	N	92	-74.964	142.216	320.583	1	70.39	E	C
ATOM	6880	OG	SER	N	92	-75.275	141.212	321.537	1	67.36	E	O
ATOM	6881	C	SER	N	92	-74.164	142.651	318.266	1	70.86	E	C
ATOM	6882	O	SER	N	92	-73.363	143.603	318.279	1	78.27	E	O
ATOM	6883	N	GLY	N	93	-75.037	142.457	317.286	1	67.45	E	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	6884	CA	GLY	N	93	-75.215	143.476	316.242	1	68.31	E	C
ATOM	6885	C	GLY	N	93	-75.476	142.913	314.864	1	70.28	E	C
ATOM	6886	O	GLY	N	93	-75.534	141.679	314.675	1	64.77	E	O
ATOM	6887	N	SER	N	94	-75.656	143.83	313.912	1	66.93	E	N
ATOM	6888	CA	SER	N	94	-75.97	143.487	312.52	1	67.84	E	C
ATOM	6889	CB	SER	N	94	-77.437	143.131	312.38	1	64.83	E	C
ATOM	6890	OG	SER	N	94	-77.673	141.902	313.017	1	73.01	E	O
ATOM	6891	C	SER	N	94	-75.66	144.61	311.544	1	70.13	E	C
ATOM	6892	O	SER	N	94	-75.634	145.789	311.911	1	72.11	E	O
ATOM	6893	N	GLY	N	95	-75.439	144.213	310.296	1	71.16	E	N
ATOM	6894	CA	GLY	N	95	-75.215	145.121	309.186	1	74.61	E	C
ATOM	6895	C	GLY	N	95	-74.219	146.207	309.494	1	80.19	E	C
ATOM	6896	O	GLY	N	95	-73.039	146.092	309.151	1	81.99	E	O
ATOM	6897	N	THR	N	96	-74.721	147.253	310.153	1	86.34	E	N
ATOM	6898	CA	THR	N	96	-73.953	148.456	310.502	1	87.78	E	C
ATOM	6899	CB	THR	N	96	-74.59	149.685	309.843	1	84.21	E	C
ATOM	6900	OG1	THR	N	96	-75.968	149.758	310.231	1	88.37	E	O
ATOM	6901	CG2	THR	N	96	-74.487	149.58	308.334	1	80.15	E	C
ATOM	6902	C	THR	N	96	-73.831	148.769	311.996	1	86.86	E	C
ATOM	6903	O	THR	N	96	-72.893	149.469	312.379	1	91.6	E	O
ATOM	6904	N	ASP	N	97	-74.752	148.255	312.818	1	80.22	E	N
ATOM	6905	CA	ASP	N	97	-74.849	148.583	314.247	1	78.87	E	C
ATOM	6906	CB	ASP	N	97	-76.321	148.832	314.621	1	85.83	E	C
ATOM	6907	CG	ASP	N	97	-76.673	150.285	314.655	1	89.31	E	C
ATOM	6908	OD1	ASP	N	97	-76.122	150.982	315.527	1	101.31	E	O
ATOM	6909	OD2	ASP	N	97	-77.509	150.721	313.841	1	92.66	E	O
ATOM	6910	C	ASP	N	97	-74.347	147.438	315.107	1	73.45	E	C
ATOM	6911	O	ASP	N	97	-74.961	146.363	315.092	1	79.62	E	O
ATOM	6912	N	PHE	N	98	-73.265	147.649	315.867	1	67.02	E	N
ATOM	6913	CA	PHE	N	98	-72.755	146.589	316.78	1	64.08	E	C
ATOM	6914	CB	PHE	N	98	-71.516	145.888	316.209	1	61.15	E	C
ATOM	6915	CG	PHE	N	98	-71.694	145.413	314.801	1	58.5	E	C
ATOM	6916	CD1	PHE	N	98	-72.236	144.154	314.536	1	56.6	E	C
ATOM	6917	CE1	PHE	N	98	-72.429	143.728	313.24	1	53.02	E	C
ATOM	6918	CZ	PHE	N	98	-72.089	144.568	312.198	1	56.78	E	C
ATOM	6919	CE2	PHE	N	98	-71.552	145.826	312.452	1	53.85	E	C
ATOM	6920	CD2	PHE	N	98	-71.356	146.238	313.741	1	55.01	E	C
ATOM	6921	C	PHE	N	98	-72.436	147.086	318.168	1	64.88	E	C
ATOM	6922	O	PHE	N	98	-72.201	148.284	318.382	1	59.1	E	O
ATOM	6923	N	THR	N	99	-72.377	146.133	319.093	1	67.66	E	N
ATOM	6924	CA	THR	N	99	-72.276	146.44	320.506	1	75.54	E	C
ATOM	6925	CB	THR	N	99	-73.705	146.671	321.085	1	80.56	E	C
ATOM	6926	OG1	THR	N	99	-74.069	148.057	320.911	1	77.83	E	O
ATOM	6927	CG2	THR	N	99	-73.835	146.284	322.591	1	78.23	E	C
ATOM	6928	C	THR	N	99	-71.499	145.374	321.289	1	79.05	E	C

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ATOM	6929	O	THR	N	99	-71.839	144.185	321.232	1	83.35	E	O
ATOM	6930	N	LEU	N	100	-70.474	145.831	322.023	1	79.19	E	N
ATOM	6931	CA	LEU	N	100	-69.752	145.031	323.032	1	79.63	E	C
ATOM	6932	CB	LEU	N	100	-68.271	145.443	323.038	1	76.52	E	C
ATOM	6933	CG	LEU	N	100	-67.261	144.641	323.879	1	72.46	E	C
ATOM	6934	CD1	LEU	N	100	-67.286	143.157	323.588	1	73.3	E	C
ATOM	6935	CD2	LEU	N	100	-65.873	145.15	323.608	1	69.52	E	C
ATOM	6936	C	LEU	N	100	-70.37	145.249	324.432	1	78.6	E	C
ATOM	6937	O	LEU	N	100	-70.717	146.378	324.759	1	84.11	E	O
ATOM	6938	N	LYS	N	101	-70.501	144.191	325.241	1	71.64	E	N
ATOM	6939	CA	LYS	N	101	-71.182	144.275	326.542	1	76.93	E	C
ATOM	6940	CB	LYS	N	101	-72.678	143.937	326.395	1	86.92		C
ATOM	6941	CG	LYS	N	101	-73.595	145.151	326.239	1	93.59		C
ATOM	6942	CD	LYS	N	101	-74.961	144.79	325.655	1	98.52		C
ATOM	6943	CE	LYS	N	101	-75.802	143.919	326.59	1	103.99		C
ATOM	6944	NZ	LYS	N	101	-77.067	143.427	325.962	1	104.05		N
ATOM	6945	C	LYS	N	101	-70.544	143.417	327.651	1	77.73	E	C
ATOM	6946	O	LYS	N	101	-70.831	142.214	327.806	1	75.74	E	O
ATOM	6947	N	ILE	N	102	-69.721	144.082	328.46	1	73.61	E	N
ATOM	6948	CA	ILE	N	102	-69.017	143.459	329.584	1	67.25	E	C
ATOM	6949	CB	ILE	N	102	-67.852	144.347	330.059	1	64.01	E	C
ATOM	6950	CG1	ILE	N	102	-66.886	144.615	328.897	1	68.15	E	C
ATOM	6951	CD1	ILE	N	102	-65.846	145.67	329.168	1	69.09	E	C
ATOM	6952	CG2	ILE	N	102	-67.088	143.672	331.184	1	65.8	E	C
ATOM	6953	C	ILE	N	102	-70.005	143.273	330.724	1	70.62	E	C
ATOM	6954	O	ILE	N	102	-70.527	144.263	331.238	1	75.26	E	O
ATOM	6955	N	SER	N	103	-70.255	142.025	331.126	1	71.92	E	N
ATOM	6956	CA	SER	N	103	-71.308	141.73	332.111	1	75.3	E	C
ATOM	6957	CB	SER	N	103	-71.46	140.228	332.382	1	74.25	E	C
ATOM	6958	OG	SER	N	103	-70.449	139.744	333.253	1	78.5	E	O
ATOM	6959	C	SER	N	103	-71.045	142.441	333.418	1	82.36	E	C
ATOM	6960	O	SER	N	103	-71.947	143.087	333.944	1	91.23	E	O
ATOM	6961	N	ARG	N	104	-69.814	142.317	333.93	1	86.14	E	N
ATOM	6962	CA	ARG	N	104	-69.424	142.94	335.203	1	82.13	E	C
ATOM	6963	CB	ARG	N	104	-70.073	142.182	336.392	1	90.82	E	C
ATOM	6964	CG	ARG	N	104	-69.377	140.932	336.92	1	93.95	E	C
ATOM	6965	CD	ARG	N	104	-68.569	141.259	338.174	1	102.76	E	C
ATOM	6966	NE	ARG	N	104	-67.465	140.329	338.412	1	115.69	E	N
ATOM	6967	CZ	ARG	N	104	-66.655	140.36	339.473	1	115.11	E	C
ATOM	6968	NH1	ARG	N	104	-66.809	141.275	340.435	1	107.62	E	N
ATOM	6969	NH2	ARG	N	104	-65.678	139.46	339.575	1	113.59	E	N
ATOM	6970	C	ARG	N	104	-67.889	143.143	335.34	1	72.37	E	C
ATOM	6971	O	ARG	N	104	-67.137	142.198	335.569	1	70.3	E	O
ATOM	6972	N	VAL	N	105	-67.455	144.403	335.239	1	67	E	N
ATOM	6973	CA	VAL	N	105	-66.042	144.771	335.026	1	67.83	E	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	6974	CB	VAL	N	105	-65.881	146.291	334.82	1	69.66	E	C
ATOM	6975	CG1	VAL	N	105	-64.411	146.693	334.714	1	69.99	E	C
ATOM	6976	CG2	VAL	N	105	-66.629	146.738	333.571	1	74.64	E	C
ATOM	6977	C	VAL	N	105	-65.104	144.339	336.154	1	75.19	E	C
ATOM	6978	O	VAL	N	105	-65.356	144.621	337.32	1	91.53	E	O
ATOM	6979	N	GLU	N	106	-64.037	143.638	335.781	1	78.35	E	N
ATOM	6980	CA	GLU	N	106	-62.939	143.293	336.672	1	76.11	E	C
ATOM	6981	CB	GLU	N	106	-62.461	141.846	336.45	1	82.17	E	C
ATOM	6982	CG	GLU	N	106	-63.303	140.756	337.123	1	89.42	E	C
ATOM	6983	CD	GLU	N	106	-62.656	139.354	337.069	1	90.29	E	C
ATOM	6984	OE1	GLU	N	106	-61.411	139.227	337.088	1	91.08	E	O
ATOM	6985	OE2	GLU	N	106	-63.395	138.35	337.017	1	81.77	E	O
ATOM	6986	C	GLU	N	106	-61.812	144.271	336.359	1	73.66	E	C
ATOM	6987	O	GLU	N	106	-61.818	144.926	335.317	1	65.52	E	O
ATOM	6988	N	ALA	N	107	-60.84	144.343	337.265	1	76.59	E	N
ATOM	6989	CA	ALA	N	107	-59.73	145.297	337.171	1	74.22	E	C
ATOM	6990	CB	ALA	N	107	-58.927	145.275	338.46	1	78.8	E	C
ATOM	6991	C	ALA	N	107	-58.802	145.035	335.987	1	73.25	E	C
ATOM	6992	O	ALA	N	107	-58.123	145.947	335.513	1	64.84	E	O
ATOM	6993	N	GLU	N	108	-58.783	143.789	335.513	1	76.59	E	N
ATOM	6994	CA	GLU	N	108	-57.975	143.385	334.35	1	75.22	E	C
ATOM	6995	CB	GLU	N	108	-57.948	141.842	334.224	1	79.02	E	C
ATOM	6996	CG	GLU	N	108	-56.924	141.129	335.121	1	87.43	E	C
ATOM	6997	CD	GLU	N	108	-57.095	141.364	336.637	1	101.2	E	C
ATOM	6998	OE1	GLU	N	108	-58.16	141.839	337.103	1	108.25	E	O
ATOM	6999	OE2	GLU	N	108	-56.143	141.06	337.39	1	108.18	E	O
ATOM	7000	C	GLU	N	108	-58.435	144.05	333.028	1	72.04	E	C
ATOM	7001	O	GLU	N	108	-57.662	144.138	332.075	1	73.07	E	O
ATOM	7002	N	ASP	N	109	-59.656	144.586	333.003	1	67.47	E	N
ATOM	7003	CA	ASP	N	109	-60.293	145.048	331.775	1	63.57	E	C
ATOM	7004	CB	ASP	N	109	-61.773	144.748	331.888	1	64.36	E	C
ATOM	7005	CG	ASP	N	109	-62.038	143.342	332.397	1	63.8	E	C
ATOM	7006	OD1	ASP	N	109	-61.152	142.467	332.243	1	62.09	E	O
ATOM	7007	OD2	ASP	N	109	-63.135	143.11	332.947	1	63.52	E	O
ATOM	7008	C	ASP	N	109	-60.089	146.517	331.434	1	64.06	E	C
ATOM	7009	O	ASP	N	109	-60.613	146.992	330.444	1	63.49	E	O
ATOM	7010	N	LEU	N	110	-59.355	147.247	332.261	1	75.39	E	N
ATOM	7011	CA	LEU	N	110	-58.908	148.597	331.907	1	84.93	E	C
ATOM	7012	CB	LEU	N	110	-58.015	149.218	333.021	1	100.96	E	C
ATOM	7013	CG	LEU	N	110	-56.905	148.445	333.806	1	111.89	E	C
ATOM	7014	CD1	LEU	N	110	-56.106	147.415	332.996	1	116.39	E	C
ATOM	7015	CD2	LEU	N	110	-55.932	149.395	334.502	1	109.24	E	C
ATOM	7016	C	LEU	N	110	-58.159	148.563	330.569	1	80.25	E	C
ATOM	7017	O	LEU	N	110	-57.386	147.635	330.322	1	77.16	E	O
ATOM	7018	N	GLY	N	111	-58.41	149.562	329.717	1	78.31	E	N

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	7019	CA	GLY	N	111	-57.782	149.668	328.391	1	74.52	E	C
ATOM	7020	C	GLY	N	111	-58.696	150.262	327.325	1	73.77	E	C
ATOM	7021	O	GLY	N	111	-59.873	150.56	327.595	1	71.07	E	O
ATOM	7022	N	VAL	N	112	-58.147	150.422	326.116	1	64.36	E	N
ATOM	7023	CA	VAL	N	112	-58.871	150.987	324.974	1	63	E	C
ATOM	7024	CB	VAL	N	112	-57.934	151.814	324.099	1	61.99	E	C
ATOM	7025	CG1	VAL	N	112	-58.701	152.508	322.988	1	63.61	E	C
ATOM	7026	CG2	VAL	N	112	-57.223	152.846	324.947	1	64.87	E	C
ATOM	7027	C	VAL	N	112	-59.431	149.843	324.131	1	65.28	E	C
ATOM	7028	O	VAL	N	112	-58.69	148.922	323.793	1	68.27	E	O
ATOM	7029	N	TYR	N	113	-60.724	149.906	323.799	1	62.26	E	N
ATOM	7030	CA	TYR	N	113	-61.414	148.849	323.04	1	64.75	E	C
ATOM	7031	CB	TYR	N	113	-62.749	148.496	323.678	1	63.03	E	C
ATOM	7032	CG	TYR	N	113	-62.63	147.722	324.971	1	69.23	E	C
ATOM	7033	CD1	TYR	N	113	-61.989	148.262	326.095	1	74.16	E	C
ATOM	7034	CE1	TYR	N	113	-61.886	147.537	327.286	1	74.45	E	C
ATOM	7035	CZ	TYR	N	113	-62.422	146.255	327.363	1	70.42	E	C
ATOM	7036	OH	TYR	N	113	-62.318	145.535	328.527	1	68.76	E	O
ATOM	7037	CE2	TYR	N	113	-63.054	145.702	326.264	1	69.58	E	C
ATOM	7038	CD2	TYR	N	113	-63.158	146.44	325.084	1	72.36	E	C
ATOM	7039	C	TYR	N	113	-61.679	149.347	321.642	1	66.97	E	C
ATOM	7040	O	TYR	N	113	-62.23	150.44	321.491	1	73.93	E	O
ATOM	7041	N	TYR	N	114	-61.328	148.539	320.634	1	64.69	E	N
ATOM	7042	CA	TYR	N	114	-61.501	148.9	319.22	1	62.48	E	C
ATOM	7043	CB	TYR	N	114	-60.152	148.867	318.551	1	59.32	E	C
ATOM	7044	CG	TYR	N	114	-59.18	149.882	319.053	1	58	E	C
ATOM	7045	CD1	TYR	N	114	-58.34	149.601	320.106	1	58.06	E	C
ATOM	7046	CE1	TYR	N	114	-57.415	150.527	320.55	1	63.81	E	C
ATOM	7047	CZ	TYR	N	114	-57.321	151.761	319.931	1	66.04	E	C
ATOM	7048	OH	TYR	N	114	-56.411	152.693	320.359	1	67.51	E	O
ATOM	7049	CE2	TYR	N	114	-58.142	152.058	318.869	1	69.2	E	C
ATOM	7050	CD2	TYR	N	114	-59.062	151.115	318.432	1	64.74	E	C
ATOM	7051	C	TYR	N	114	-62.429	147.949	318.443	1	65.64	E	C
ATOM	7052	O	TYR	N	114	-62.404	146.731	318.684	1	63.32	E	O
ATOM	7053	N	CYS	N	115	-63.235	148.518	317.526	1	66.34	E	N
ATOM	7054	CA	CYS	N	115	-63.887	147.765	316.432	1	66.24	E	C
ATOM	7055	CB	CYS	N	115	-64.937	148.583	315.688	1	73.77	E	C
ATOM	7056	SG	CYS	N	115	-66.085	149.63	316.557	1	82.38	E	S
ATOM	7057	C	CYS	N	115	-62.88	147.52	315.343	1	64.15	E	C
ATOM	7058	O	CYS	N	115	-61.99	148.333	315.15	1	65.84	E	O
ATOM	7059	N	PHE	N	116	-63.09	146.475	314.552	1	62.08	E	N
ATOM	7060	CA	PHE	N	116	-62.296	146.26	313.327	1	60.98	E	C
ATOM	7061	CB	PHE	N	116	-61.139	145.314	313.654	1	59.02		C
ATOM	7062	CG	PHE	N	116	-60.317	144.898	312.464	1	56.14		C
ATOM	7063	CD1	PHE	N	116	-59.278	145.713	311.993	1	54.82		C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	7064	CE1	PHE	N	116	-58.508	145.326	310.906	1	51.44		C
ATOM	7065	CZ	PHE	N	116	-58.765	144.113	310.279	1	46.36		C
ATOM	7066	CE2	PHE	N	116	-59.77	143.289	310.744	1	47.36		C
ATOM	7067	CD2	PHE	N	116	-60.546	143.671	311.832	1	51.76		C
ATOM	7068	C	PHE	N	116	-63.182	145.657	312.242	1	61.1	E	C
ATOM	7069	O	PHE	N	116	-63.821	144.615	312.499	1	62.27	E	O
ATOM	7070	N	GLN	N	117	-63.248	146.304	311.063	1	56.73	E	N
ATOM	7071	CA	GLN	N	117	-63.999	145.72	309.911	1	60.68	E	C
ATOM	7072	CB	GLN	N	117	-65.15	146.622	309.357	1	56.67	E	C
ATOM	7073	CG	GLN	N	117	-64.756	147.847	308.524	1	52.32	E	C
ATOM	7074	CD	GLN	N	117	-64.283	147.548	307.099	1	48.23	E	C
ATOM	7075	OE1	GLN	N	117	-64.629	146.523	306.535	1	47.8	E	O
ATOM	7076	NE2	GLN	N	117	-63.47	148.447	306.521	1	44.34	E	N
ATOM	7077	C	GLN	N	117	-63.075	145.238	308.787	1	60.17	E	C
ATOM	7078	O	GLN	N	117	-62.065	145.886	308.466	1	52.42	E	O
ATOM	7079	N	SER	N	118	-63.459	144.103	308.205	1	63.02	E	N
ATOM	7080	CA	SER	N	118	-62.729	143.477	307.1	1	67.49	E	C
ATOM	7081	CB	SER	N	118	-61.738	142.441	307.638	1	63.31		C
ATOM	7082	OG	SER	N	118	-62.417	141.522	308.491	1	59.04		O
ATOM	7083	C	SER	N	118	-63.715	142.835	306.11	1	73.28	E	C
ATOM	7084	O	SER	N	118	-63.547	141.701	305.672	1	75.33	E	O
ATOM	7085	N	ASN	N	119	-64.775	143.576	305.804	1	77.59	E	N
ATOM	7086	CA	ASN	N	119	-65.579	143.337	304.619	1	68.01	E	C
ATOM	7087	CB	ASN	N	119	-67.046	143.668	304.896	1	69.52		C
ATOM	7088	CG	ASN	N	119	-68.018	142.749	304.175	1	74.34		C
ATOM	7089	OD1	ASN	N	119	-69.083	142.475	304.697	1	83.06		O
ATOM	7090	ND2	ASN	N	119	-67.673	142.282	302.981	1	71.15		N
ATOM	7091	C	ASN	N	119	-65.081	144.189	303.468	1	60.71	E	C
ATOM	7092	O	ASN	N	119	-65.189	143.77	302.33	1	62.54	E	O
ATOM	7093	N	TYR	N	120	-64.537	145.372	303.768	1	59	E	N
ATOM	7094	CA	TYR	N	120	-64.178	146.375	302.764	1	63.51	E	C
ATOM	7095	CB	TYR	N	120	-65.046	147.643	302.92	1	68.34		C
ATOM	7096	CG	TYR	N	120	-66.525	147.381	302.709	1	73.77		C
ATOM	7097	CD1	TYR	N	120	-67.311	146.956	303.763	1	75.64		C
ATOM	7098	CE1	TYR	N	120	-68.65	146.682	303.6	1	75.6		C
ATOM	7099	CZ	TYR	N	120	-69.243	146.83	302.367	1	76.31		C
ATOM	7100	OH	TYR	N	120	-70.591	146.548	302.241	1	77.93		O
ATOM	7101	CE2	TYR	N	120	-68.482	147.251	301.282	1	73.78		C
ATOM	7102	CD2	TYR	N	120	-67.129	147.524	301.456	1	71.65		C
ATOM	7103	C	TYR	N	120	-62.73	146.767	302.875	1	57.23	E	C
ATOM	7104	O	TYR	N	120	-62.334	147.366	303.854	1	62.97	E	O
ATOM	7105	N	LEU	N	121	-61.942	146.435	301.865	1	55.03	E	N
ATOM	7106	CA	LEU	N	121	-60.621	147.026	301.713	1	57.94	E	C
ATOM	7107	CB	LEU	N	121	-59.861	146.406	300.548	1	57.57		C
ATOM	7108	CG	LEU	N	121	-59.114	145.116	300.907	1	60.53		C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	7109	CD1	LEU	N	121	-59.184	144.074	299.811	1	58.37		C
ATOM	7110	CD2	LEU	N	121	-57.663	145.443	301.208	1	68.32		C
ATOM	7111	C	LEU	N	121	-60.821	148.496	301.463	1	60.27	E	C
ATOM	7112	O	LEU	N	121	-61.779	148.844	300.785	1	72.94	E	O
ATOM	7113	N	PRO	N	122	-60.004	149.377	302.045	1	72.84	E	N
ATOM	7114	CA	PRO	N	122	-59.032	149.076	303.119	1	70.97	E	C
ATOM	7115	CB	PRO	N	122	-58.204	150.368	303.218	1	74.05	E	C
ATOM	7116	CG	PRO	N	122	-59.019	151.418	302.533	1	77.22	E	C
ATOM	7117	CD	PRO	N	122	-59.778	150.711	301.46	1	77.71	E	C
ATOM	7118	C	PRO	N	122	-59.698	148.774	304.464	1	64.59	E	C
ATOM	7119	O	PRO	N	122	-60.681	149.416	304.813	1	67.39	E	O
ATOM	7120	N	TYR	N	123	-59.173	147.789	305.191	1	63.23	E	N
ATOM	7121	CA	TYR	N	123	-59.731	147.385	306.492	1	61.11	E	C
ATOM	7122	CB	TYR	N	123	-59.022	146.13	307.036	1	63.44		C
ATOM	7123	CG	TYR	N	123	-59.108	144.841	306.22	1	65		C
ATOM	7124	CD1	TYR	N	123	-60.136	144.608	305.3	1	68.99		C
ATOM	7125	CE1	TYR	N	123	-60.209	143.417	304.578	1	69.79		C
ATOM	7126	CZ	TYR	N	123	-59.26	142.435	304.772	1	67.44		C
ATOM	7127	OH	TYR	N	123	-59.328	141.248	304.055	1	61		O
ATOM	7128	CE2	TYR	N	123	-58.236	142.643	305.691	1	65.27		C
ATOM	7129	CD2	TYR	N	123	-58.172	143.827	306.41	1	63.72		C
ATOM	7130	C	TYR	N	123	-59.579	148.51	307.517	1	54.23	E	C
ATOM	7131	O	TYR	N	123	-58.586	149.212	307.508	1	45.59	E	O
ATOM	7132	N	THR	N	124	-60.548	148.679	308.409	1	56.97	E	N
ATOM	7133	CA	THR	N	124	-60.514	149.827	309.343	1	59.6	E	C
ATOM	7134	CB	THR	N	124	-61.411	151.012	308.879	1	60.32	E	C
ATOM	7135	OG1	THR	N	124	-62.765	150.58	308.673	1	62.71	E	O
ATOM	7136	CG2	THR	N	124	-60.868	151.653	307.604	1	56.39	E	C
ATOM	7137	C	THR	N	124	-60.884	149.485	310.776	1	59.9	E	C
ATOM	7138	O	THR	N	124	-61.714	148.597	311.019	1	68.03	E	O
ATOM	7139	N	PHE	N	125	-60.233	150.191	311.707	1	59.16	E	N
ATOM	7140	CA	PHE	N	125	-60.578	150.188	313.139	1	57.88	E	C
ATOM	7141	CB	PHE	N	125	-59.318	150.32	314.025	1	55.46	E	C
ATOM	7142	CG	PHE	N	125	-58.403	149.138	313.968	1	54.64	E	C
ATOM	7143	CD1	PHE	N	125	-58.636	148.017	314.779	1	48.71	E	C
ATOM	7144	CE1	PHE	N	125	-57.791	146.921	314.732	1	48.03	E	C
ATOM	7145	CZ	PHE	N	125	-56.702	146.913	313.858	1	51.13	E	C
ATOM	7146	CE2	PHE	N	125	-56.45	148.018	313.055	1	56.96	E	C
ATOM	7147	CD2	PHE	N	125	-57.303	149.13	313.108	1	56.94	E	C
ATOM	7148	C	PHE	N	125	-61.476	151.366	313.48	1	58.4	E	C
ATOM	7149	O	PHE	N	125	-61.439	152.398	312.82	1	54	E	O
ATOM	7150	N	GLY	N	126	-62.244	151.227	314.554	1	66.19	E	N
ATOM	7151	CA	GLY	N	126	-62.859	152.387	315.213	1	70	E	C
ATOM	7152	C	GLY	N	126	-61.798	153.284	315.852	1	72.6	E	C
ATOM	7153	O	GLY	N	126	-60.594	153.001	315.782	1	76.97	E	O

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	7154	N	GLY	N	127	-62.239	154.354	316.502	1	74.41	E	N
ATOM	7155	CA	GLY	N	127	-61.316	155.377	317.029	1	77.02	E	C
ATOM	7156	C	GLY	N	127	-60.699	155.077	318.387	1	75.69	E	C
ATOM	7157	O	GLY	N	127	-59.652	155.645	318.746	1	69.69	E	O
ATOM	7158	N	GLY	N	128	-61.368	154.195	319.133	1	68.98	E	N
ATOM	7159	CA	GLY	N	128	-61.011	153.849	320.493	1	64.67	E	C
ATOM	7160	C	GLY	N	128	-62.161	154.134	321.43	1	65.79	E	C
ATOM	7161	O	GLY	N	128	-62.985	154.994	321.157	1	74.25	E	O
ATOM	7162	N	THR	N	129	-62.202	153.395	322.534	1	69.53	E	N
ATOM	7163	CA	THR	N	129	-63.106	153.624	323.652	1	71.34	E	C
ATOM	7164	CB	THR	N	129	-64.313	152.687	323.573	1	73.96	E	C
ATOM	7165	OG1	THR	N	129	-65.041	152.959	322.368	1	87.78	E	O
ATOM	7166	CG2	THR	N	129	-65.236	152.859	324.793	1	73.12	E	C
ATOM	7167	C	THR	N	129	-62.348	153.343	324.945	1	79.45	E	C
ATOM	7168	O	THR	N	129	-62.361	152.21	325.45	1	77.27	E	O
ATOM	7169	N	LYS	N	130	-61.677	154.37	325.473	1	84.72	E	N
ATOM	7170	CA	LYS	N	130	-60.857	154.208	326.678	1	84.08	E	C
ATOM	7171	CB	LYS	N	130	-59.955	155.427	326.906	1	86.92	E	C
ATOM	7172	CG	LYS	N	130	-58.907	155.209	327.997	1	89.31	E	C
ATOM	7173	CD	LYS	N	130	-57.753	156.208	327.916	1	88.39	E	C
ATOM	7174	CE	LYS	N	130	-56.431	155.592	328.361	1	81.16	E	C
ATOM	7175	NZ	LYS	N	130	-55.35	156.614	328.398	1	75.45	E	N
ATOM	7176	C	LYS	N	130	-61.723	153.94	327.905	1	77.84	E	C
ATOM	7177	O	LYS	N	130	-62.392	154.824	328.403	1	87.12	E	O
ATOM	7178	N	LEU	N	131	-61.725	152.698	328.36	1	77.08	E	N
ATOM	7179	CA	LEU	N	131	-62.428	152.318	329.564	1	78.4	E	C
ATOM	7180	CB	LEU	N	131	-62.656	150.816	329.561	1	78.55	E	C
ATOM	7181	CG	LEU	N	131	-63.534	150.248	330.669	1	79.75	E	C
ATOM	7182	CD1	LEU	N	131	-64.987	150.475	330.318	1	83.05	E	C
ATOM	7183	CD2	LEU	N	131	-63.266	148.765	330.87	1	81.92	E	C
ATOM	7184	C	LEU	N	131	-61.571	152.729	330.771	1	86.34	E	C
ATOM	7185	O	LEU	N	131	-60.458	152.235	330.94	1	88.52	E	O
ATOM	7186	N	GLU	N	132	-62.099	153.629	331.599	1	92.94	E	N
ATOM	7187	CA	GLU	N	132	-61.393	154.164	332.768	1	90.13	E	C
ATOM	7188	CB	GLU	N	132	-61.374	155.694	332.709	1	98.73	E	C
ATOM	7189	CG	GLU	N	132	-61.149	156.266	331.313	1	107.47	E	C
ATOM	7190	CD	GLU	N	132	-60.83	157.751	331.313	1	112.95	E	C
ATOM	7191	OE1	GLU	N	132	-60.015	158.18	330.465	1	110.01	E	O
ATOM	7192	OE2	GLU	N	132	-61.379	158.488	332.166	1	125.17	E	O
ATOM	7193	C	GLU	N	132	-62.08	153.707	334.05	1	86.78	E	C
ATOM	7194	O	GLU	N	132	-63.192	153.181	334.013	1	89.01	E	O
ATOM	7195	N	ILE	N	133	-61.42	153.929	335.183	1	90.41	E	N
ATOM	7196	CA	ILE	N	133	-62.019	153.657	336.502	1	96.98	E	C
ATOM	7197	CB	ILE	N	133	-60.995	153.287	337.602	1	101.9	E	C
ATOM	7198	CG1	ILE	N	133	-59.891	152.348	337.085	1	106.8	E	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	7199	CD1	ILE	N	133	-58.625	152.367	337.924	1	110.82	E	C
ATOM	7200	CG2	ILE	N	133	-61.725	152.64	338.778	1	99.97	E	C
ATOM	7201	C	ILE	N	133	-62.747	154.921	336.967	1	95.63	E	C
ATOM	7202	O	ILE	N	133	-62.171	156.012	336.946	1	79.15	E	O
ATOM	7203	N	LYS	N	134	-63.991	154.752	337.415	1	105.31	E	N
ATOM	7204	CA	LYS	N	134	-64.889	155.871	337.745	1	112.85	E	C
ATOM	7205	CB	LYS	N	134	-66.351	155.478	337.476	1	112.96	E	C
ATOM	7206	CG	LYS	N	134	-67.401	156.562	337.681	1	110.6	E	C
ATOM	7207	CD	LYS	N	134	-68.799	155.964	337.771	1	110.86	E	C
ATOM	7208	CE	LYS	N	134	-69.869	157.006	337.47	1	112.02	E	C
ATOM	7209	NZ	LYS	N	134	-71.24	156.485	337.723	1	109.44	E	N
ATOM	7210	C	LYS	N	134	-64.703	156.279	339.205	1	110.99	E	C
ATOM	7211	O	LYS	N	134	-64.815	155.448	340.111	1	109.33	E	O
ATOM	7212	N	ARG	N	135	-64.431	157.567	339.403	1	107.01	E	N
ATOM	7213	CA	ARG	N	135	-64.148	158.149	340.71	1	109.04	E	C
ATOM	7214	CB	ARG	N	135	-62.732	158.747	340.696	1	109.48	E	C
ATOM	7215	CG	ARG	N	135	-62.124	159.024	342.07	1	107.63	E	C
ATOM	7216	CD	ARG	N	135	-61.61	160.457	342.208	1	111.67	E	C
ATOM	7217	NE	ARG	N	135	-60.481	160.603	343.13	1	111.57	E	N
ATOM	7218	CZ	ARG	N	135	-60.532	160.447	344.456	1	108.78	E	C
ATOM	7219	NH1	ARG	N	135	-59.425	160.627	345.173	1	114.62	E	N
ATOM	7220	NH2	ARG	N	135	-61.656	160.092	345.079	1	104.51	E	N
ATOM	7221	C	ARG	N	135	-65.167	159.256	340.985	1	106.53	E	C
ATOM	7222	O	ARG	N	135	-65.724	159.841	340.042	1	102.06	E	O
ATOM	7223	N	THR	N	136	-65.396	159.555	342.268	1	101.53	C	N
ATOM	7224	CA	THR	N	136	-66.196	160.728	342.666	1	101.79	C	C
ATOM	7225	CB	THR	N	136	-66.314	160.873	344.2	1	92.52	C	C
ATOM	7226	OG1	THR	N	136	-65.008	160.885	344.771	1	91.87	C	O
ATOM	7227	CG2	THR	N	136	-67.121	159.735	344.819	1	90.06	C	C
ATOM	7228	C	THR	N	136	-65.571	162.011	342.11	1	103.97	C	C
ATOM	7229	O	THR	N	136	-64.434	162.01	341.628	1	107.42	C	O
ATOM	7230	N	VAL	N	137	-66.308	163.112	342.184	1	104.66	C	N
ATOM	7231	CA	VAL	N	137	-65.798	164.38	341.653	1	107.19	C	C
ATOM	7232	CB	VAL	N	137	-66.885	165.481	341.598	1	111.84		C
ATOM	7233	CG1	VAL	N	137	-66.398	166.666	340.766	1	114.98		C
ATOM	7234	CG2	VAL	N	137	-68.2	164.937	341.03	1	112.41		C
ATOM	7235	C	VAL	N	137	-64.623	164.797	342.551	1	103.35	C	C
ATOM	7236	O	VAL	N	137	-64.58	164.414	343.72	1	108.36	C	O
ATOM	7237	N	ALA	N	138	-63.656	165.531	342.008	1	95.6	C	N
ATOM	7238	CA	ALA	N	138	-62.482	165.924	342.79	1	95.8	C	C
ATOM	7239	CB	ALA	N	138	-61.534	164.744	342.923	1	103.69	C	C
ATOM	7240	C	ALA	N	138	-61.75	167.109	342.174	1	100.04	C	C
ATOM	7241	O	ALA	N	138	-61.152	166.986	341.106	1	101.76	C	O
ATOM	7242	N	ALA	N	139	-61.784	168.247	342.865	1	103.32	C	N
ATOM	7243	CA	ALA	N	139	-61.176	169.482	342.374	1	100.67	C	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	7244	CB	ALA	N	139	-61.645	170.659	343.213	1	99.26	C	C
ATOM	7245	C	ALA	N	139	-59.645	169.4	342.404	1	103.68	C	C
ATOM	7246	O	ALA	N	139	-59.082	168.758	343.294	1	105.74	C	O
ATOM	7247	N	PRO	N	140	-58.961	170.055	341.441	1	103.49	C	N
ATOM	7248	CA	PRO	N	140	-57.494	170.071	341.469	1	107.27	C	C
ATOM	7249	CB	PRO	N	140	-57.114	170.598	340.067	1	106.53	C	C
ATOM	7250	CG	PRO	N	140	-58.294	171.368	339.617	1	107.25	C	C
ATOM	7251	CD	PRO	N	140	-59.488	170.671	340.209	1	108.2	C	C
ATOM	7252	C	PRO	N	140	-56.877	170.944	342.577	1	108.81	C	C
ATOM	7253	O	PRO	N	140	-57.564	171.402	343.494	1	108.11	C	O
ATOM	7254	N	SER	N	141	-55.563	171.094	342.496	1	106.94	C	N
ATOM	7255	CA	SER	N	141	-54.795	172.007	343.311	1	102.59	C	C
ATOM	7256	CB	SER	N	141	-54	171.239	344.377	1	97.57	C	C
ATOM	7257	OG	SER	N	141	-54.766	170.182	344.923	1	92.69		O
ATOM	7258	C	SER	N	141	-53.856	172.678	342.325	1	107.33	C	C
ATOM	7259	O	SER	N	141	-52.905	172.053	341.855	1	108.22	C	O
ATOM	7260	N	VAL	N	142	-54.131	173.929	341.976	1	106.78	C	N
ATOM	7261	CA	VAL	N	142	-53.307	174.609	340.977	1	105.52	C	C
ATOM	7262	CB	VAL	N	142	-54.09	175.674	340.189	1	106.32	C	C
ATOM	7263	CG1	VAL	N	142	-53.268	176.168	339.003	1	109.56	C	C
ATOM	7264	CG2	VAL	N	142	-55.417	175.111	339.695	1	104.04	C	C
ATOM	7265	C	VAL	N	142	-52.063	175.195	341.661	1	100.25	C	C
ATOM	7266	O	VAL	N	142	-52.095	175.527	342.842	1	99.6	C	O
ATOM	7267	N	PHE	N	143	-50.961	175.243	340.923	1	92.74	C	N
ATOM	7268	CA	PHE	N	143	-49.685	175.786	341.389	1	99.9	C	C
ATOM	7269	CB	PHE	N	143	-48.706	174.671	341.809	1	104.44		C
ATOM	7270	CG	PHE	N	143	-49.017	174.019	343.141	1	104		C
ATOM	7271	CD1	PHE	N	143	-50.096	173.144	343.274	1	104.81		C
ATOM	7272	CE1	PHE	N	143	-50.379	172.536	344.493	1	107.22		C
ATOM	7273	CZ	PHE	N	143	-49.565	172.785	345.594	1	109.27		C
ATOM	7274	CE2	PHE	N	143	-48.477	173.643	345.474	1	106.38		C
ATOM	7275	CD2	PHE	N	143	-48.199	174.243	344.253	1	103.94		C
ATOM	7276	C	PHE	N	143	-49.107	176.527	340.191	1	112.85	C	C
ATOM	7277	O	PHE	N	143	-49.602	176.355	339.072	1	120.28	C	O
ATOM	7278	N	ILE	N	144	-48.063	177.328	340.406	1	119.85	C	N
ATOM	7279	CA	ILE	N	144	-47.472	178.13	339.317	1	124.49	C	C
ATOM	7280	CB	ILE	N	144	-48.411	179.295	338.885	1	124.71	C	C
ATOM	7281	CG1	ILE	N	144	-47.753	180.165	337.799	1	125.65	C	C
ATOM	7282	CD1	ILE	N	144	-48.739	180.782	336.832	1	124.69	C	C
ATOM	7283	CG2	ILE	N	144	-48.847	180.13	340.088	1	123.98	C	C
ATOM	7284	C	ILE	N	144	-46.061	178.633	339.655	1	123.43	C	C
ATOM	7285	O	ILE	N	144	-45.833	179.195	340.728	1	126.14	C	O
ATOM	7286	N	PHE	N	145	-45.134	178.44	338.717	1	120.94	C	N
ATOM	7287	CA	PHE	N	145	-43.702	178.584	338.974	1	128.21	C	C
ATOM	7288	CB	PHE	N	145	-43.035	177.205	339.038	1	130.68	C	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	7289	CG	PHE	N	145	-43.815	176.18	339.82	1	138.67	C	C
ATOM	7290	CD1	PHE	N	145	-44.776	175.386	339.196	1	140.76	C	C
ATOM	7291	CE1	PHE	N	145	-45.496	174.439	339.914	1	142.1	C	C
ATOM	7292	CZ	PHE	N	145	-45.25	174.264	341.268	1	149.7	C	C
ATOM	7293	CE2	PHE	N	145	-44.292	175.045	341.902	1	153.6	C	C
ATOM	7294	CD2	PHE	N	145	-43.58	175.995	341.177	1	147.74	C	C
ATOM	7295	C	PHE	N	145	-43.04	179.4	337.865	1	134.51	C	C
ATOM	7296	O	PHE	N	145	-43.262	179.12	336.688	1	142.71	C	O
ATOM	7297	N	PRO	N	146	-42.22	180.404	338.228	1	135.35	C	N
ATOM	7298	CA	PRO	N	146	-41.447	181.116	337.221	1	127.95	C	C
ATOM	7299	CB	PRO	N	146	-41.305	182.503	337.836	1	132.88	C	C
ATOM	7300	CG	PRO	N	146	-41.206	182.229	339.301	1	135.38	C	C
ATOM	7301	CD	PRO	N	146	-41.976	180.962	339.573	1	134.42	C	C
ATOM	7302	C	PRO	N	146	-40.07	180.467	337.047	1	117.88	C	C
ATOM	7303	O	PRO	N	146	-39.714	179.599	337.845	1	114.05	C	O
ATOM	7304	N	PRO	N	147	-39.299	180.889	336.022	1	115.17	C	N
ATOM	7305	CA	PRO	N	147	-37.931	180.43	335.737	1	111.45	C	C
ATOM	7306	CB	PRO	N	147	-37.456	181.425	334.676	1	113.43	C	C
ATOM	7307	CG	PRO	N	147	-38.687	181.777	333.928	1	116.12	C	C
ATOM	7308	CD	PRO	N	147	-39.829	181.696	334.903	1	117.57	C	C
ATOM	7309	C	PRO	N	147	-36.929	180.46	336.887	1	110.93	C	C
ATOM	7310	O	PRO	N	147	-37.14	181.117	337.904	1	103.22	C	O
ATOM	7311	N	SER	N	148	-35.833	179.743	336.691	1	116.12	C	N
ATOM	7312	CA	SER	N	148	-34.636	179.918	337.496	1	127.26	C	C
ATOM	7313	CB	SER	N	148	-33.89	178.595	337.609	1	126.52	C	C
ATOM	7314	OG	SER	N	148	-33.555	178.101	336.322	1	127.99	C	O
ATOM	7315	C	SER	N	148	-33.758	180.941	336.788	1	137.8	C	C
ATOM	7316	O	SER	N	148	-34.072	181.365	335.665	1	143.87	C	O
ATOM	7317	N	ASP	N	149	-32.64	181.301	337.418	1	137.66	C	N
ATOM	7318	CA	ASP	N	149	-31.64	182.185	336.803	1	138.65	C	C
ATOM	7319	CB	ASP	N	149	-30.884	182.976	337.882	1	134.86		C
ATOM	7320	CG	ASP	N	149	-31.799	183.857	338.715	1	130.99		C
ATOM	7321	OD1	ASP	N	149	-32.562	184.648	338.121	1	123.65		O
ATOM	7322	OD2	ASP	N	149	-31.743	183.77	339.964	1	132.65		O
ATOM	7323	C	ASP	N	149	-30.659	181.375	335.943	1	143.03	C	C
ATOM	7324	O	ASP	N	149	-29.437	181.522	336.075	1	146.84	C	O
ATOM	7325	N	GLU	N	150	-31.211	180.546	335.051	1	138.28	C	N
ATOM	7326	CA	GLU	N	150	-30.443	179.6	334.231	1	133.48	C	C
ATOM	7327	CB	GLU	N	150	-30.335	178.241	334.938	1	133.42	C	C
ATOM	7328	CG	GLU	N	150	-29.315	178.17	336.078	1	129.87	C	C
ATOM	7329	CD	GLU	N	150	-27.917	177.788	335.608	1	133.3	C	C
ATOM	7330	OE1	GLU	N	150	-27.67	176.573	335.421	1	134.44	C	O
ATOM	7331	OE2	GLU	N	150	-27.063	178.693	335.438	1	119.49	C	O
ATOM	7332	C	GLU	N	150	-31.084	179.448	332.842	1	128.56	C	C
ATOM	7333	O	GLU	N	150	-30.426	179.662	331.829	1	120.32	C	O

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ATOM	7334	N	GLN	N	151	-32.36	179.061	332.803	1	134.99	C	N
ATOM	7335	CA	GLN	N	151	-33.169	179.122	331.561	1	137.58	C	C
ATOM	7336	CB	GLN	N	151	-34.502	178.365	331.71	1	132.34	C	C
ATOM	7337	CG	GLN	N	151	-35.473	178.931	332.738	1	127.95	C	C
ATOM	7338	CD	GLN	N	151	-36.67	178.025	332.967	1	124.38	C	C
ATOM	7339	OE1	GLN	N	151	-37.571	177.947	332.134	1	119.38	C	O
ATOM	7340	NE2	GLN	N	151	-36.688	177.336	334.102	1	125.2	C	N
ATOM	7341	C	GLN	N	151	-33.427	180.57	331.145	1	134.27	C	C
ATOM	7342	O	GLN	N	151	-33.596	180.873	329.956	1	123.15	C	O
ATOM	7343	N	LEU	N	152	-33.488	181.441	332.151	1	140.3	C	N
ATOM	7344	CA	LEU	N	152	-33.428	182.885	331.961	1	142.33	C	C
ATOM	7345	CB	LEU	N	152	-33.701	183.605	333.289	1	138.38	C	C
ATOM	7346	CG	LEU	N	152	-34.102	185.076	333.189	1	140.64	C	C
ATOM	7347	CD1	LEU	N	152	-35.562	185.192	332.759	1	143.34	C	C
ATOM	7348	CD2	LEU	N	152	-33.857	185.801	334.508	1	133.31	C	C
ATOM	7349	C	LEU	N	152	-32.049	183.278	331.416	1	147.79	C	C
ATOM	7350	O	LEU	N	152	-31.954	183.965	330.396	1	151.96	C	O
ATOM	7351	N	LYS	N	153	-30.994	182.824	332.099	1	149.42	C	N
ATOM	7352	CA	LYS	N	153	-29.596	183.031	331.672	1	146.43	C	C
ATOM	7353	CB	LYS	N	153	-28.638	182.268	332.6	1	139.86		C
ATOM	7354	CG	LYS	N	153	-27.159	182.596	332.45	1	135.42		C
ATOM	7355	CD	LYS	N	153	-26.313	181.347	332.648	1	132.97		C
ATOM	7356	CE	LYS	N	153	-24.841	181.675	332.82	1	136.65		C
ATOM	7357	NZ	LYS	N	153	-23.984	180.46	332.708	1	137.38		N
ATOM	7358	C	LYS	N	153	-29.358	182.602	330.216	1	155.15	C	C
ATOM	7359	O	LYS	N	153	-28.608	183.261	329.494	1	168	C	O
ATOM	7360	N	SER	N	154	-29.991	181.5	329.802	1	155.96	C	N
ATOM	7361	CA	SER	N	154	-29.991	181.06	328.398	1	148.03	C	C
ATOM	7362	CB	SER	N	154	-30.633	179.67	328.264	1	142.34	C	C
ATOM	7363	OG	SER	N	154	-30.678	179.231	326.914	1	126.79	C	O
ATOM	7364	C	SER	N	154	-30.736	182.067	327.519	1	149.15	C	C
ATOM	7365	O	SER	N	154	-30.218	182.495	326.485	1	154.54	C	O
ATOM	7366	N	GLY	N	155	-31.943	182.44	327.945	1	142.56	C	N
ATOM	7367	CA	GLY	N	155	-32.763	183.431	327.243	1	136.85	C	C
ATOM	7368	C	GLY	N	155	-34.158	182.95	326.888	1	135.05	C	C
ATOM	7369	O	GLY	N	155	-35.041	183.772	326.638	1	122.75	C	O
ATOM	7370	N	THR	N	156	-34.359	181.629	326.847	1	139.52	C	N
ATOM	7371	CA	THR	N	156	-35.654	181.05	326.479	1	141.75	C	C
ATOM	7372	CB	THR	N	156	-35.572	179.533	326.188	1	142.88		C
ATOM	7373	OG1	THR	N	156	-34.626	178.917	327.075	1	147.31		O
ATOM	7374	CG2	THR	N	156	-35.16	179.284	324.74	1	140.19		C
ATOM	7375	C	THR	N	156	-36.678	181.318	327.573	1	143.1	C	C
ATOM	7376	O	THR	N	156	-37.586	182.107	327.361	1	156.63	C	O
ATOM	7377	N	ALA	N	157	-36.511	180.68	328.732	1	133.91	C	N
ATOM	7378	CA	ALA	N	157	-37.398	180.856	329.896	1	127.62	C	C

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ATOM	7379	CB	ALA	N	157	-37.324	182.285	330.418	1	126.87	C	C
ATOM	7380	C	ALA	N	157	-38.873	180.42	329.705	1	126.56	C	C
ATOM	7381	O	ALA	N	157	-39.573	180.886	328.801	1	114.68	C	O
ATOM	7382	N	SER	N	158	-39.328	179.55	330.612	1	135.32	C	N
ATOM	7383	CA	SER	N	158	-40.613	178.844	330.513	1	129.23	C	C
ATOM	7384	CB	SER	N	158	-40.382	177.454	329.899	1	130.52	C	C
ATOM	7385	OG	SER	N	158	-39.1	176.934	330.234	1	122.35	C	O
ATOM	7386	C	SER	N	158	-41.303	178.731	331.889	1	124.52	C	C
ATOM	7387	O	SER	N	158	-40.639	178.542	332.904	1	105.29	C	O
ATOM	7388	N	VAL	N	159	-42.634	178.836	331.888	1	134.49	C	N
ATOM	7389	CA	VAL	N	159	-43.477	178.935	333.098	1	138.99	C	C
ATOM	7390	CB	VAL	N	159	-44.261	180.277	333.123	1	141.06	C	C
ATOM	7391	CG1	VAL	N	159	-45.088	180.455	334.396	1	136.52	C	C
ATOM	7392	CG2	VAL	N	159	-43.31	181.456	332.979	1	137.99	C	C
ATOM	7393	C	VAL	N	159	-44.461	177.758	333.078	1	138.57	C	C
ATOM	7394	O	VAL	N	159	-44.895	177.345	332.006	1	138.22	C	O
ATOM	7395	N	VAL	N	160	-44.814	177.249	334.262	1	132.65	C	N
ATOM	7396	CA	VAL	N	160	-45.651	176.045	334.421	1	124.39	C	C
ATOM	7397	CB	VAL	N	160	-44.862	174.904	335.11	1	117.25	C	C
ATOM	7398	CG1	VAL	N	160	-45.721	173.653	335.276	1	118.38	C	C
ATOM	7399	CG2	VAL	N	160	-43.592	174.576	334.33	1	115.23	C	C
ATOM	7400	C	VAL	N	160	-46.877	176.372	335.26	1	124.99	C	C
ATOM	7401	O	VAL	N	160	-46.813	177.231	336.131	1	131.18	C	O
ATOM	7402	N	CYS	N	161	-47.981	175.674	335.004	1	129.23	C	N
ATOM	7403	CA	CYS	N	161	-49.226	175.874	335.744	1	134.91	C	C
ATOM	7404	CB	CYS	N	161	-50.2	176.688	334.892	1	149.56	C	C
ATOM	7405	SG	CYS	N	161	-51.649	177.294	335.781	1	167.27	C	S
ATOM	7406	C	CYS	N	161	-49.832	174.53	336.163	1	126.7	C	C
ATOM	7407	O	CYS	N	161	-50.93	174.168	335.735	1	122.53	C	O
ATOM	7408	N	LEU	N	162	-49.092	173.819	337.018	1	118.92	C	N
ATOM	7409	CA	LEU	N	162	-49.429	172.463	337.518	1	109.95	C	C
ATOM	7410	CB	LEU	N	162	-48.423	172.074	338.606	1	111.59		C
ATOM	7411	CG	LEU	N	162	-48.618	170.771	339.397	1	115.91		C
ATOM	7412	CD1	LEU	N	162	-48.173	169.59	338.546	1	125.21		C
ATOM	7413	CD2	LEU	N	162	-47.882	170.794	340.731	1	107.45		C
ATOM	7414	C	LEU	N	162	-50.833	172.32	338.107	1	106.98	C	C
ATOM	7415	O	LEU	N	162	-51.334	173.247	338.734	1	115.99	C	O
ATOM	7416	N	LEU	N	163	-51.445	171.147	337.919	1	101.63	C	N
ATOM	7417	CA	LEU	N	163	-52.749	170.83	338.518	1	104.3	C	C
ATOM	7418	CB	LEU	N	163	-53.903	171.062	337.532	1	106.3	C	C
ATOM	7419	CG	LEU	N	163	-53.773	172.09	336.403	1	105.92	C	C
ATOM	7420	CD1	LEU	N	163	-52.799	171.641	335.31	1	109.22	C	C
ATOM	7421	CD2	LEU	N	163	-55.163	172.334	335.822	1	104.12	C	C
ATOM	7422	C	LEU	N	163	-52.747	169.374	338.937	1	99.4	C	C
ATOM	7423	O	LEU	N	163	-52.521	168.522	338.1	1	105.38	C	O

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ATOM	7424	N	ASN	N	164	-53.008	169.098	340.216	1	100.11	C	N
ATOM	7425	CA	ASN	N	164	-52.901	167.746	340.777	1	96.79	C	C
ATOM	7426	CB	ASN	N	164	-51.998	167.762	341.996	1	99.31	C	C
ATOM	7427	CG	ASN	N	164	-50.554	167.707	341.618	1	110.55	C	C
ATOM	7428	OD1	ASN	N	164	-50.12	168.498	340.793	1	115.98	C	O
ATOM	7429	ND2	ASN	N	164	-49.802	166.765	342.189	1	117.21	C	N
ATOM	7430	C	ASN	N	164	-54.172	167.068	341.205	1	93.38	C	C
ATOM	7431	O	ASN	N	164	-55.103	167.694	341.686	1	91.03	C	O
ATOM	7432	N	ASN	N	165	-54.162	165.755	341.046	1	94.81	C	N
ATOM	7433	CA	ASN	N	165	-55.09	164.866	341.719	1	99.68	C	C
ATOM	7434	CB	ASN	N	165	-54.636	164.632	343.164	1	96.17	C	C
ATOM	7435	CG	ASN	N	165	-53.279	163.966	343.223	1	94.03	C	C
ATOM	7436	OD1	ASN	N	165	-52.264	164.588	342.921	1	96.39	C	O
ATOM	7437	ND2	ASN	N	165	-53.258	162.682	343.552	1	97.16	C	N
ATOM	7438	C	ASN	N	165	-56.56	165.259	341.625	1	99.27	C	C
ATOM	7439	O	ASN	N	165	-57.238	165.436	342.632	1	101.49	C	O
ATOM	7440	N	PHE	N	166	-57.031	165.346	340.383	1	107.32	C	N
ATOM	7441	CA	PHE	N	166	-58.406	165.728	340.068	1	111.37	C	C
ATOM	7442	CB	PHE	N	166	-58.413	167.061	339.333	1	108.47	C	C
ATOM	7443	CG	PHE	N	166	-57.818	166.999	337.956	1	102.53	C	C
ATOM	7444	CD1	PHE	N	166	-56.451	167.133	337.768	1	99.78	C	C
ATOM	7445	CE1	PHE	N	166	-55.906	167.085	336.498	1	99.59	C	C
ATOM	7446	CZ	PHE	N	166	-56.728	166.9	335.398	1	101.24	C	C
ATOM	7447	CE2	PHE	N	166	-58.092	166.777	335.567	1	104.07	C	C
ATOM	7448	CD2	PHE	N	166	-58.632	166.823	336.842	1	107.5	C	C
ATOM	7449	C	PHE	N	166	-59.097	164.686	339.198	1	118.27	C	C
ATOM	7450	O	PHE	N	166	-58.433	163.892	338.532	1	128.69	C	O
ATOM	7451	N	TYR	N	167	-60.428	164.724	339.198	1	124.55	C	N
ATOM	7452	CA	TYR	N	167	-61.258	163.879	338.334	1	128.18	C	C
ATOM	7453	CB	TYR	N	167	-61.666	162.598	339.077	1	126.52	C	C
ATOM	7454	CG	TYR	N	167	-62.393	161.629	338.184	1	131.14	C	C
ATOM	7455	CD1	TYR	N	167	-61.689	160.772	337.343	1	135.55	C	C
ATOM	7456	CE1	TYR	N	167	-62.351	159.902	336.493	1	143.9	C	C
ATOM	7457	CZ	TYR	N	167	-63.733	159.881	336.478	1	141.56	C	C
ATOM	7458	OH	TYR	N	167	-64.386	159.016	335.643	1	147.09	C	O
ATOM	7459	CE2	TYR	N	167	-64.455	160.724	337.299	1	138.64	C	C
ATOM	7460	CD2	TYR	N	167	-63.786	161.596	338.142	1	134.62	C	C
ATOM	7461	C	TYR	N	167	-62.513	164.661	337.893	1	128.31	C	C
ATOM	7462	O	TYR	N	167	-63.108	165.333	338.744	1	129.48	C	O
ATOM	7463	N	PRO	N	168	-62.942	164.604	336.616	1	126.69	C	N
ATOM	7464	CA	PRO	N	168	-62.341	163.838	335.512	1	122.82	C	C
ATOM	7465	CB	PRO	N	168	-63.557	163.508	334.648	1	125.28	C	C
ATOM	7466	CG	PRO	N	168	-64.41	164.72	334.782	1	128.47	C	C
ATOM	7467	CD	PRO	N	168	-64.22	165.211	336.197	1	129.67	C	C
ATOM	7468	C	PRO	N	168	-61.324	164.635	334.687	1	118.23	C	C

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ATOM	7469	O	PRO	N	168	-61.104	165.819	334.95	1	115.54	C	O
ATOM	7470	N	ARG	N	169	-60.743	163.971	333.685	1	114.07	C	N
ATOM	7471	CA	ARG	N	169	-59.653	164.514	332.842	1	111.04	C	C
ATOM	7472	CB	ARG	N	169	-59.25	163.458	331.792	1	112.02		C
ATOM	7473	CG	ARG	N	169	-58.081	163.82	330.883	1	112.74		C
ATOM	7474	CD	ARG	N	169	-57.567	162.563	330.192	1	121.43		C
ATOM	7475	NE	ARG	N	169	-56.638	162.832	329.088	1	122.4		N
ATOM	7476	CZ	ARG	N	169	-55.97	161.896	328.402	1	113.72		C
ATOM	7477	NH1	ARG	N	169	-55.148	162.26	327.422	1	104.85		N
ATOM	7478	NH2	ARG	N	169	-56.105	160.596	328.685	1	111.37		N
ATOM	7479	C	ARG	N	169	-59.941	165.858	332.149	1	102.24	C	C
ATOM	7480	O	ARG	N	169	-59.011	166.626	331.91	1	91.52	C	O
ATOM	7481	N	GLU	N	170	-61.211	166.128	331.828	1	106.63	C	N
ATOM	7482	CA	GLU	N	170	-61.6	167.34	331.091	1	109.24	C	C
ATOM	7483	CB	GLU	N	170	-63.081	167.284	330.692	1	106.82		C
ATOM	7484	C	GLU	N	170	-61.319	168.616	331.893	1	107.2	C	C
ATOM	7485	O	GLU	N	170	-61.979	168.895	332.893	1	100.47	C	O
ATOM	7486	N	ALA	N	171	-60.316	169.37	331.453	1	111.36	C	N
ATOM	7487	CA	ALA	N	171	-59.963	170.647	332.076	1	114.19	C	C
ATOM	7488	CB	ALA	N	171	-59.276	170.411	333.411	1	114.44	C	C
ATOM	7489	C	ALA	N	171	-59.078	171.499	331.153	1	114.27	C	C
ATOM	7490	O	ALA	N	171	-58.359	170.974	330.297	1	107.58	C	O
ATOM	7491	N	LYS	N	172	-59.133	172.813	331.362	1	117.41	C	N
ATOM	7492	CA	LYS	N	172	-58.537	173.803	330.452	1	122.12	C	C
ATOM	7493	CB	LYS	N	172	-59.612	174.618	329.687	1	125.77		C
ATOM	7494	CG	LYS	N	172	-61.032	174.612	330.257	1	125.47		C
ATOM	7495	CD	LYS	N	172	-61.834	173.414	329.752	1	126.67		C
ATOM	7496	CE	LYS	N	172	-63.001	173.063	330.662	1	121.24		C
ATOM	7497	NZ	LYS	N	172	-63.717	171.865	330.144	1	120.37		N
ATOM	7498	C	LYS	N	172	-57.605	174.739	331.206	1	126.8	C	C
ATOM	7499	O	LYS	N	172	-57.665	174.842	332.44	1	121.81	C	O
ATOM	7500	N	VAL	N	173	-56.749	175.417	330.442	1	131.04	C	N
ATOM	7501	CA	VAL	N	173	-55.732	176.321	330.986	1	142.84	C	C
ATOM	7502	CB	VAL	N	173	-54.315	175.679	330.932	1	141.33	C	C
ATOM	7503	CG1	VAL	N	173	-53.242	176.657	331.414	1	141.35	C	C
ATOM	7504	CG2	VAL	N	173	-54.276	174.402	331.761	1	134.3	C	C
ATOM	7505	C	VAL	N	173	-55.724	177.659	330.232	1	143.51	C	C
ATOM	7506	O	VAL	N	173	-55.258	177.731	329.093	1	143.95	C	O
ATOM	7507	N	GLN	N	174	-56.233	178.709	330.879	1	143.25	C	N
ATOM	7508	CA	GLN	N	174	-56.054	180.086	330.395	1	145.25	C	C
ATOM	7509	CB	GLN	N	174	-57.044	181.049	331.064	1	140.2		C
ATOM	7510	CG	GLN	N	174	-58.517	180.692	330.902	1	139.96		C
ATOM	7511	CD	GLN	N	174	-58.976	180.647	329.449	1	136.5		C
ATOM	7512	OE1	GLN	N	174	-58.432	181.344	328.588	1	135.66		O
ATOM	7513	NE2	GLN	N	174	-59.99	179.827	329.172	1	128.46		N

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ATOM	7514	C	GLN	N	174	-54.623	180.536	330.7	1	149.32	C	C
ATOM	7515	O	GLN	N	174	-53.995	180.022	331.632	1	150.98	C	O
ATOM	7516	N	TRP	N	175	-54.112	181.492	329.922	1	151.76	C	N
ATOM	7517	CA	TRP	N	175	-52.739	181.982	330.105	1	153.32	C	C
ATOM	7518	CB	TRP	N	175	-51.741	180.931	329.605	1	148.67	C	C
ATOM	7519	CG	TRP	N	175	-50.867	180.319	330.661	1	149.58	C	C
ATOM	7520	CD1	TRP	N	175	-50.993	180.401	332.025	1	155.61	C	C
ATOM	7521	NE1	TRP	N	175	-49.992	179.693	332.637	1	158.08	C	N
ATOM	7522	CE2	TRP	N	175	-49.202	179.134	331.671	1	156.54	C	C
ATOM	7523	CD2	TRP	N	175	-49.732	179.509	330.418	1	149.33	C	C
ATOM	7524	CE3	TRP	N	175	-49.107	179.056	329.255	1	150.85	C	C
ATOM	7525	CZ3	TRP	N	175	-48.001	178.272	329.371	1	155.93	C	C
ATOM	7526	CH2	TRP	N	175	-47.492	177.912	330.632	1	159.06	C	C
ATOM	7527	CZ2	TRP	N	175	-48.075	178.336	331.791	1	160.7	C	C
ATOM	7528	C	TRP	N	175	-52.436	183.355	329.482	1	159.61	C	C
ATOM	7529	O	TRP	N	175	-52.715	183.61	328.305	1	163.43	C	O
ATOM	7530	N	LYS	N	176	-51.827	184.219	330.298	1	156.54	C	N
ATOM	7531	CA	LYS	N	176	-51.765	185.652	330.029	1	149.27	C	C
ATOM	7532	CB	LYS	N	176	-53.175	186.247	330.041	1	146.16	C	C
ATOM	7533	CG	LYS	N	176	-54.153	185.681	331.081	1	144.4	C	C
ATOM	7534	CD	LYS	N	176	-54.098	186.359	332.439	1	142.24	C	C
ATOM	7535	CE	LYS	N	176	-54.931	185.59	333.458	1	140.67	C	C
ATOM	7536	NZ	LYS	N	176	-56.371	185.474	333.087	1	140.23	C	N
ATOM	7537	C	LYS	N	176	-50.89	186.41	331.025	1	144.92	C	C
ATOM	7538	O	LYS	N	176	-50.765	186.015	332.188	1	124.95	C	O
ATOM	7539	N	VAL	N	177	-50.304	187.509	330.551	1	152.15	C	N
ATOM	7540	CA	VAL	N	177	-49.467	188.374	331.394	1	154.06	C	C
ATOM	7541	CB	VAL	N	177	-48.549	189.326	330.559	1	149.81		C
ATOM	7542	CG1	VAL	N	177	-47.577	188.489	329.729	1	151.34		C
ATOM	7543	CG2	VAL	N	177	-49.322	190.315	329.671	1	141.43		C
ATOM	7544	C	VAL	N	177	-50.317	189.105	332.454	1	159.59	C	C
ATOM	7545	O	VAL	N	177	-50.1	188.922	333.654	1	164.11	C	O
ATOM	7546	N	ASP	N	178	-51.301	189.884	332.002	1	157.64	C	N
ATOM	7547	CA	ASP	N	178	-52.269	190.592	332.854	1	139.72	C	C
ATOM	7548	CB	ASP	N	178	-51.776	191.983	333.3	1	128.03	C	C
ATOM	7549	CG	ASP	N	178	-50.379	191.969	333.894	1	121.42	C	C
ATOM	7550	OD1	ASP	N	178	-49.388	192.038	333.132	1	122.11	C	O
ATOM	7551	OD2	ASP	N	178	-50.271	191.916	335.13	1	120.11	C	O
ATOM	7552	C	ASP	N	178	-53.49	190.774	331.956	1	146.63	C	C
ATOM	7553	O	ASP	N	178	-53.347	191.322	330.855	1	147.37	C	O
ATOM	7554	N	ASN	N	179	-54.656	190.276	332.371	1	147.5	C	N
ATOM	7555	CA	ASN	N	179	-55.918	190.393	331.595	1	155.58	C	C
ATOM	7556	CB	ASN	N	179	-56.304	191.865	331.359	1	159.56		C
ATOM	7557	CG	ASN	N	179	-56.401	192.665	332.641	1	158.51		C
ATOM	7558	OD1	ASN	N	179	-56.946	192.189	333.64	1	156.8		O

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ATOM	7559	ND2	ASN	N	179	-55.891	193.898	332.616	1	156.7		N
ATOM	7560	C	ASN	N	179	-55.994	189.678	330.232	1	159.43	C	C
ATOM	7561	O	ASN	N	179	-57.08	189.238	329.842	1	158.26	C	O
ATOM	7562	N	ALA	N	180	-54.867	189.578	329.518	1	162.4	C	N
ATOM	7563	CA	ALA	N	180	-54.829	189.19	328.1	1	159.87	C	C
ATOM	7564	CB	ALA	N	180	-53.456	189.536	327.514	1	154	C	C
ATOM	7565	C	ALA	N	180	-55.16	187.699	327.9	1	160.14	C	C
ATOM	7566	O	ALA	N	180	-55.812	187.088	328.744	1	161.04	C	O
ATOM	7567	N	LEU	N	181	-54.75	187.129	326.769	1	152.23	C	N
ATOM	7568	CA	LEU	N	181	-54.731	185.675	326.578	1	143.59	C	C
ATOM	7569	CB	LEU	N	181	-56.032	185.186	325.907	1	140.89		C
ATOM	7570	CG	LEU	N	181	-57.114	184.534	326.802	1	138.79		C
ATOM	7571	CD1	LEU	N	181	-58.181	185.515	327.286	1	133.91		C
ATOM	7572	CD2	LEU	N	181	-57.784	183.385	326.054	1	134.31		C
ATOM	7573	C	LEU	N	181	-53.497	185.309	325.75	1	144.8	C	C
ATOM	7574	O	LEU	N	181	-52.752	186.191	325.321	1	148.21	C	O
ATOM	7575	N	GLN	N	182	-53.278	184.009	325.556	1	143.16	C	N
ATOM	7576	CA	GLN	N	182	-52.252	183.508	324.638	1	136.79	C	C
ATOM	7577	CB	GLN	N	182	-50.903	183.365	325.363	1	136.51		C
ATOM	7578	CG	GLN	N	182	-50.119	184.658	325.57	1	132.55		C
ATOM	7579	CD	GLN	N	182	-49.9	185.445	324.28	1	129.62		C
ATOM	7580	OE1	GLN	N	182	-49.828	184.875	323.187	1	115.34		O
ATOM	7581	NE2	GLN	N	182	-49.8	186.763	324.405	1	127.46		N
ATOM	7582	C	GLN	N	182	-52.661	182.173	324.01	1	136.99	C	C
ATOM	7583	O	GLN	N	182	-53.591	181.518	324.484	1	135.97	C	O
ATOM	7584	N	SER	N	183	-51.962	181.793	322.937	1	140.77	C	N
ATOM	7585	CA	SER	N	183	-52.205	180.534	322.204	1	145.14	C	C
ATOM	7586	CB	SER	N	183	-52.893	180.839	320.864	1	142.11	C	C
ATOM	7587	OG	SER	N	183	-53.899	181.821	321.011	1	136.66		O
ATOM	7588	C	SER	N	183	-50.869	179.801	321.986	1	146.94	C	C
ATOM	7589	O	SER	N	183	-49.966	179.939	322.812	1	140.43	C	O
ATOM	7590	N	GLY	N	184	-50.773	178.992	320.92	1	151.51	C	N
ATOM	7591	CA	GLY	N	184	-49.498	178.526	320.326	1	147.35	C	C
ATOM	7592	C	GLY	N	184	-48.379	178.173	321.287	1	143.96	C	C
ATOM	7593	O	GLY	N	184	-48.06	176.999	321.487	1	141.81	C	O
ATOM	7594	N	ASN	N	185	-47.772	179.205	321.862	1	134.73	C	N
ATOM	7595	CA	ASN	N	185	-46.886	179.059	323.028	1	144.3	C	C
ATOM	7596	CB	ASN	N	185	-46.192	180.406	323.336	1	143.85		C
ATOM	7597	CG	ASN	N	185	-47.169	181.579	323.467	1	143.16		C
ATOM	7598	OD1	ASN	N	185	-48.022	181.602	324.357	1	134.39		O
ATOM	7599	ND2	ASN	N	185	-47.034	182.567	322.584	1	141.81		N
ATOM	7600	C	ASN	N	185	-47.568	178.465	324.298	1	151.12	C	C
ATOM	7601	O	ASN	N	185	-47.671	179.126	325.337	1	153.59	C	O
ATOM	7602	N	SER	N	186	-48.004	177.206	324.215	1	150.61	C	N
ATOM	7603	CA	SER	N	186	-48.756	176.554	325.299	1	142.95	C	C

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ATOM	7604	CB	SER	N	186	-50.153	177.165	325.455	1	139.15	C	C
ATOM	7605	OG	SER	N	186	-50.84	176.548	326.528	1	127.4		O
ATOM	7606	C	SER	N	186	-48.888	175.044	325.067	1	146.02	C	C
ATOM	7607	O	SER	N	186	-49.737	174.601	324.286	1	140.32	C	O
ATOM	7608	N	GLN	N	187	-48.048	174.273	325.759	1	147.86	C	N
ATOM	7609	CA	GLN	N	187	-48.014	172.804	325.651	1	134.43	C	C
ATOM	7610	CB	GLN	N	187	-46.616	172.344	325.26	1	133.72		C
ATOM	7611	CG	GLN	N	187	-46.418	172.223	323.773	1	133.74		C
ATOM	7612	CD	GLN	N	187	-44.981	171.938	323.414	1	133.23		C
ATOM	7613	OE1	GLN	N	187	-44.182	171.514	324.249	1	124.74		O
ATOM	7614	NE2	GLN	N	187	-44.643	172.174	322.164	1	143.68		N
ATOM	7615	C	GLN	N	187	-48.382	172.098	326.948	1	114.94	C	C
ATOM	7616	O	GLN	N	187	-47.651	172.191	327.929	1	107.74	C	O
ATOM	7617	N	GLU	N	188	-49.48	171.349	326.915	1	104.1	C	N
ATOM	7618	CA	GLU	N	188	-49.972	170.594	328.067	1	99.38	C	C
ATOM	7619	CB	GLU	N	188	-51.511	170.623	328.071	1	99.91		C
ATOM	7620	CG	GLU	N	188	-52.051	172.041	328.299	1	110.26		C
ATOM	7621	CD	GLU	N	188	-53.34	172.394	327.551	1	117.8		C
ATOM	7622	OE1	GLU	N	188	-53.566	171.916	326.414	1	119.84		O
ATOM	7623	OE2	GLU	N	188	-54.124	173.201	328.102	1	114.59		O
ATOM	7624	C	GLU	N	188	-49.391	169.167	328.068	1	94.13	C	C
ATOM	7625	O	GLU	N	188	-48.654	168.782	327.157	1	85.9	C	O
ATOM	7626	N	SER	N	189	-49.676	168.416	329.126	1	90.96	C	N
ATOM	7627	CA	SER	N	189	-49.197	167.033	329.273	1	91.11	C	C
ATOM	7628	CB	SER	N	189	-47.71	166.992	329.596	1	90.3	C	C
ATOM	7629	OG	SER	N	189	-47.288	165.653	329.699	1	92.33	C	O
ATOM	7630	C	SER	N	189	-49.96	166.426	330.418	1	90.19	C	C
ATOM	7631	O	SER	N	189	-50.31	167.16	331.338	1	90.61	C	O
ATOM	7632	N	VAL	N	190	-50.23	165.114	330.372	1	86.91	C	N
ATOM	7633	CA	VAL	N	190	-51.143	164.47	331.359	1	84.31	C	C
ATOM	7634	CB	VAL	N	190	-52.588	164.321	330.803	1	78.3		C
ATOM	7635	CG1	VAL	N	190	-53.578	164.036	331.923	1	77.02		C
ATOM	7636	CG2	VAL	N	190	-53.022	165.578	330.052	1	78.57		C
ATOM	7637	C	VAL	N	190	-50.638	163.098	331.836	1	83.59	C	C
ATOM	7638	O	VAL	N	190	-49.972	162.387	331.09	1	83.64	C	O
ATOM	7639	N	THR	N	191	-50.94	162.747	333.089	1	77.31	C	N
ATOM	7640	CA	THR	N	191	-50.662	161.407	333.602	1	77.72	C	C
ATOM	7641	CB	THR	N	191	-50.333	161.37	335.136	1	76.49	C	C
ATOM	7642	OG1	THR	N	191	-51.341	162.041	335.917	1	70.58	C	O
ATOM	7643	CG2	THR	N	191	-48.956	161.972	335.403	1	70.21	C	C
ATOM	7644	C	THR	N	191	-51.855	160.519	333.297	1	75.76	C	C
ATOM	7645	O	THR	N	191	-52.949	161.014	333.051	1	85.91	C	O
ATOM	7646	N	GLU	N	192	-51.648	159.205	333.31	1	71.41	C	N
ATOM	7647	CA	GLU	N	192	-52.783	158.274	333.307	1	77.46	C	C
ATOM	7648	CB	GLU	N	192	-52.41	156.883	332.739	1	81.16		C

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ATOM	7649	CG	GLU	N	192	-52.975	156.605	331.332	1	82.29		C
ATOM	7650	CD	GLU	N	192	-52.799	157.779	330.369	1	90.21		C
ATOM	7651	OE1	GLU	N	192	-53.785	158.524	330.13	1	91.43		O
ATOM	7652	OE2	GLU	N	192	-51.666	157.981	329.878	1	91.44		O
ATOM	7653	C	GLU	N	192	-53.323	158.23	334.717	1	69.26	C	C
ATOM	7654	O	GLU	N	192	-52.722	158.813	335.616	1	74.48	C	O
ATOM	7655	N	GLN	N	193	-54.473	157.596	334.917	1	66.79	C	N
ATOM	7656	CA	GLN	N	193	-55.072	157.568	336.253	1	70.67	C	C
ATOM	7657	CB	GLN	N	193	-56.327	156.687	336.324	1	72.04	C	C
ATOM	7658	CG	GLN	N	193	-57.579	157.266	335.683	1	73.74	C	C
ATOM	7659	CD	GLN	N	193	-58.846	156.49	336.053	1	76.52	C	C
ATOM	7660	OE1	GLN	N	193	-58.792	155.284	336.313	1	79.05	C	O
ATOM	7661	NE2	GLN	N	193	-59.992	157.186	336.09	1	69.44	C	N
ATOM	7662	C	GLN	N	193	-54.046	157.029	337.235	1	75.84	C	C
ATOM	7663	O	GLN	N	193	-53.109	156.321	336.845	1	77.75	C	O
ATOM	7664	N	ASP	N	194	-54.216	157.378	338.503	1	78.56	C	N
ATOM	7665	CA	ASP	N	194	-53.417	156.777	339.565	1	79.7	C	C
ATOM	7666	CB	ASP	N	194	-53.329	157.707	340.766	1	84.91	C	C
ATOM	7667	CG	ASP	N	194	-52.09	157.469	341.588	1	89.65	C	C
ATOM	7668	OD1	ASP	N	194	-50.983	157.802	341.095	1	88.75	C	O
ATOM	7669	OD2	ASP	N	194	-52.227	156.952	342.719	1	92.83	C	O
ATOM	7670	C	ASP	N	194	-54.05	155.453	339.973	1	77.97	C	C
ATOM	7671	O	ASP	N	194	-55.276	155.309	339.949	1	70.01	C	O
ATOM	7672	N	SER	N	195	-53.213	154.482	340.333	1	87	C	N
ATOM	7673	CA	SER	N	195	-53.702	153.167	340.766	1	88.87	C	C
ATOM	7674	CB	SER	N	195	-52.587	152.127	340.735	1	85.88	C	C
ATOM	7675	OG	SER	N	195	-51.514	152.521	341.569	1	88.83	C	O
ATOM	7676	C	SER	N	195	-54.289	153.227	342.169	1	97.96	C	C
ATOM	7677	O	SER	N	195	-55.051	152.334	342.544	1	101.14	C	O
ATOM	7678	N	LYS	N	196	-53.927	154.262	342.94	1	100.3	C	N
ATOM	7679	CA	LYS	N	196	-54.4	154.412	344.319	1	98.36	C	C
ATOM	7680	CB	LYS	N	196	-53.331	155.072	345.21	1	108.22	C	C
ATOM	7681	CG	LYS	N	196	-53.074	154.354	346.538	1	108.73	C	C
ATOM	7682	CD	LYS	N	196	-51.83	153.467	346.482	1	110.35	C	C
ATOM	7683	CE	LYS	N	196	-51.924	152.335	345.465	1	109.1	C	C
ATOM	7684	NZ	LYS	N	196	-52.914	151.299	345.868	1	110.71	C	N
ATOM	7685	C	LYS	N	196	-55.691	155.214	344.365	1	88.3	C	C
ATOM	7686	O	LYS	N	196	-56.693	154.724	344.873	1	83.68	C	O
ATOM	7687	N	ASP	N	197	-55.661	156.427	343.816	1	81.76	C	N
ATOM	7688	CA	ASP	N	197	-56.783	157.373	343.924	1	86.38	C	C
ATOM	7689	CB	ASP	N	197	-56.311	158.633	344.675	1	87.57	C	C
ATOM	7690	CG	ASP	N	197	-55.284	159.47	343.89	1	91.42	C	C
ATOM	7691	OD1	ASP	N	197	-55.211	159.385	342.639	1	84.58	C	O
ATOM	7692	OD2	ASP	N	197	-54.541	160.236	344.548	1	91.19	C	O
ATOM	7693	C	ASP	N	197	-57.533	157.765	342.616	1	94.13	C	C

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ATOM	7694	O	ASP	N	197	-58.427	158.613	342.661	1	107.05	C	O
ATOM	7695	N	SER	N	198	-57.164	157.183	341.47	1	91.27	C	N
ATOM	7696	CA	SER	N	198	-57.895	157.351	340.189	1	82.23	C	C
ATOM	7697	CB	SER	N	198	-59.352	156.906	340.35	1	83.45	C	C
ATOM	7698	OG	SER	N	198	-59.45	155.724	341.133	1	88.11	C	O
ATOM	7699	C	SER	N	198	-57.855	158.751	339.551	1	81.56	C	C
ATOM	7700	O	SER	N	198	-58.623	159.056	338.641	1	86.07	C	O
ATOM	7701	N	THR	N	199	-56.939	159.592	339.997	1	85.51	C	N
ATOM	7702	CA	THR	N	199	-56.921	160.982	339.58	1	84.15	C	C
ATOM	7703	CB	THR	N	199	-56.393	161.882	340.701	1	92.78	C	C
ATOM	7704	OG1	THR	N	199	-55.028	161.529	341.005	1	91.04	C	O
ATOM	7705	CG2	THR	N	199	-57.278	161.808	341.96	1	91.46	C	C
ATOM	7706	C	THR	N	199	-55.974	161.182	338.432	1	79.38	C	C
ATOM	7707	O	THR	N	199	-55.167	160.304	338.126	1	82.27	C	O
ATOM	7708	N	TYR	N	200	-56.049	162.368	337.842	1	75.02	C	N
ATOM	7709	CA	TYR	N	200	-55.112	162.798	336.825	1	82.01	C	C
ATOM	7710	CB	TYR	N	200	-55.859	163.231	335.554	1	84.15	C	C
ATOM	7711	CG	TYR	N	200	-56.62	162.098	334.907	1	90.47	C	C
ATOM	7712	CD1	TYR	N	200	-57.873	161.716	335.397	1	92.94	C	C
ATOM	7713	CE1	TYR	N	200	-58.58	160.665	334.833	1	96.58	C	C
ATOM	7714	CZ	TYR	N	200	-58.039	159.975	333.757	1	100.73	C	C
ATOM	7715	OH	TYR	N	200	-58.778	158.942	333.228	1	97.18	C	O
ATOM	7716	CE2	TYR	N	200	-56.786	160.329	333.242	1	97.15	C	C
ATOM	7717	CD2	TYR	N	200	-56.086	161.385	333.822	1	93.73	C	C
ATOM	7718	C	TYR	N	200	-54.29	163.937	337.399	1	83.28	C	C
ATOM	7719	O	TYR	N	200	-54.475	164.329	338.553	1	93.02	C	O
ATOM	7720	N	SER	N	201	-53.353	164.427	336.597	1	75.05	C	N
ATOM	7721	CA	SER	N	201	-52.635	165.656	336.873	1	76.76	C	C
ATOM	7722	CB	SER	N	201	-51.443	165.334	337.764	1	80.65	C	C
ATOM	7723	OG	SER	N	201	-51.877	164.785	339.005	1	83.34	C	O
ATOM	7724	C	SER	N	201	-52.19	166.248	335.528	1	84.51	C	C
ATOM	7725	O	SER	N	201	-51.934	165.465	334.62	1	110.6	C	O
ATOM	7726	N	LEU	N	202	-52.129	167.576	335.347	1	83.27	C	N
ATOM	7727	CA	LEU	N	202	-51.587	168.141	334.074	1	89.66	C	C
ATOM	7728	CB	LEU	N	202	-52.672	168.696	333.134	1	95.83		C
ATOM	7729	CG	LEU	N	202	-54.131	168.238	333.23	1	100.26		C
ATOM	7730	CD1	LEU	N	202	-54.891	169.193	334.135	1	107.36		C
ATOM	7731	CD2	LEU	N	202	-54.802	168.21	331.864	1	101.29		C
ATOM	7732	C	LEU	N	202	-50.504	169.191	334.244	1	89.5	C	C
ATOM	7733	O	LEU	N	202	-50.275	169.686	335.343	1	94.79	C	O
ATOM	7734	N	SER	N	203	-49.871	169.542	333.124	1	91.49	C	N
ATOM	7735	CA	SER	N	203	-48.659	170.356	333.122	1	95.89	C	C
ATOM	7736	CB	SER	N	203	-47.458	169.422	333.312	1	92.74	C	C
ATOM	7737	OG	SER	N	203	-46.245	170.045	332.941	1	93.22	C	O
ATOM	7738	C	SER	N	203	-48.494	171.174	331.83	1	102.51	C	C

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ATOM	7739	O	SER	N	203	-47.869	170.691	330.882	1	106.46	C	O
ATOM	7740	N	SER	N	204	-49.038	172.402	331.803	1	108.31	C	N
ATOM	7741	CA	SER	N	204	-48.892	173.32	330.641	1	107.84	C	C
ATOM	7742	CB	SER	N	204	-50.12	174.227	330.472	1	108.82	C	C
ATOM	7743	OG	SER	N	204	-50.246	175.156	331.525	1	113.63	C	O
ATOM	7744	C	SER	N	204	-47.587	174.14	330.702	1	105.91	C	C
ATOM	7745	O	SER	N	204	-47.021	174.301	331.776	1	94.42	C	O
ATOM	7746	N	THR	N	205	-47.121	174.647	329.553	1	110.44	C	N
ATOM	7747	CA	THR	N	205	-45.752	175.202	329.424	1	120.34	C	C
ATOM	7748	CB	THR	N	205	-44.709	174.079	329.185	1	117.09	C	C
ATOM	7749	OG1	THR	N	205	-44.384	173.478	330.442	1	109.75	C	O
ATOM	7750	CG2	THR	N	205	-43.393	174.593	328.538	1	110.53	C	C
ATOM	7751	C	THR	N	205	-45.603	176.318	328.37	1	140.27	C	C
ATOM	7752	O	THR	N	205	-46.022	176.174	327.211	1	139.38	C	O
ATOM	7753	N	LEU	N	206	-44.953	177.405	328.804	1	153.32	C	N
ATOM	7754	CA	LEU	N	206	-44.885	178.68	328.083	1	155.77	C	C
ATOM	7755	CB	LEU	N	206	-44.968	179.838	329.09	1	156.57	C	C
ATOM	7756	CG	LEU	N	206	-45.428	181.243	328.667	1	165.45	C	C
ATOM	7757	CD1	LEU	N	206	-44.28	182.071	328.104	1	169.31	C	C
ATOM	7758	CD2	LEU	N	206	-46.596	181.232	327.687	1	169.54	C	C
ATOM	7759	C	LEU	N	206	-43.59	178.793	327.282	1	152.42	C	C
ATOM	7760	O	LEU	N	206	-42.532	178.384	327.751	1	134.81	C	O
ATOM	7761	N	THR	N	207	-43.688	179.397	326.098	1	163.06	C	N
ATOM	7762	CA	THR	N	207	-42.616	179.407	325.097	1	175.9	C	C
ATOM	7763	CB	THR	N	207	-42.978	178.464	323.913	1	169.59	C	C
ATOM	7764	OG1	THR	N	207	-43.718	177.33	324.391	1	166.31	C	O
ATOM	7765	CG2	THR	N	207	-41.721	177.988	323.186	1	161.94	C	C
ATOM	7766	C	THR	N	207	-42.333	180.842	324.587	1	189.16	C	C
ATOM	7767	O	THR	N	207	-42.439	181.116	323.386	1	203.14	C	O
ATOM	7768	N	LEU	N	208	-41.967	181.744	325.504	1	190.63	C	N
ATOM	7769	CA	LEU	N	208	-41.639	183.15	325.173	1	189.11	C	C
ATOM	7770	CB	LEU	N	208	-42.614	184.129	325.847	1	184.63	C	C
ATOM	7771	CG	LEU	N	208	-44.066	184.244	325.364	1	183.91	C	C
ATOM	7772	CD1	LEU	N	208	-44.771	185.331	326.164	1	186.8	C	C
ATOM	7773	CD2	LEU	N	208	-44.169	184.547	323.874	1	174.92	C	C
ATOM	7774	C	LEU	N	208	-40.221	183.49	325.629	1	185.41	C	C
ATOM	7775	O	LEU	N	208	-39.842	183.131	326.742	1	174.89	C	O
ATOM	7776	N	SER	N	209	-39.471	184.219	324.79	1	178.83	C	N
ATOM	7777	CA	SER	N	209	-38.056	184.552	325.055	1	165.44	C	C
ATOM	7778	CB	SER	N	209	-37.387	185.151	323.805	1	153.94	C	C
ATOM	7779	OG	SER	N	209	-37.765	186.501	323.6	1	140.17		O
ATOM	7780	C	SER	N	209	-37.891	185.504	326.244	1	171.48	C	C
ATOM	7781	O	SER	N	209	-38.881	185.983	326.812	1	178.66	C	O
ATOM	7782	N	LYS	N	210	-36.639	185.769	326.618	1	170.73	C	N
ATOM	7783	CA	LYS	N	210	-36.34	186.62	327.774	1	168.1	C	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	7784	CB	LYS	N	210	-34.83	186.677	328.049	1	171.34	C	C
ATOM	7785	CG	LYS	N	210	-34.426	187.631	329.168	1	173.57	C	C
ATOM	7786	CD	LYS	N	210	-33.074	187.282	329.777	1	170.34	C	C
ATOM	7787	CE	LYS	N	210	-31.935	187.409	328.776	1	167.48	C	C
ATOM	7788	NZ	LYS	N	210	-30.616	187.15	329.412	1	162.08	C	N
ATOM	7789	C	LYS	N	210	-36.91	188.018	327.566	1	160.84	C	C
ATOM	7790	O	LYS	N	210	-37.808	188.425	328.301	1	146.2	C	O
ATOM	7791	N	ALA	N	211	-36.433	188.705	326.528	1	159.31	C	N
ATOM	7792	CA	ALA	N	211	-36.854	190.079	326.197	1	162.55	C	C
ATOM	7793	CB	ALA	N	211	-36.387	190.447	324.792	1	161.08	C	C
ATOM	7794	C	ALA	N	211	-38.361	190.352	326.329	1	167.62	C	C
ATOM	7795	O	ALA	N	211	-38.741	191.438	326.775	1	176.22	C	O
ATOM	7796	N	ASP	N	212	-39.199	189.379	325.948	1	164.48	C	N
ATOM	7797	CA	ASP	N	212	-40.674	189.501	326.05	1	153.04	C	C
ATOM	7798	CB	ASP	N	212	-41.351	189.3	324.672	1	146.28		C
ATOM	7799	CG	ASP	N	212	-41.081	187.932	324.049	1	144.19		C
ATOM	7800	OD1	ASP	N	212	-40.191	187.196	324.527	1	142.37		O
ATOM	7801	OD2	ASP	N	212	-41.764	187.601	323.054	1	134.34		O
ATOM	7802	C	ASP	N	212	-41.336	188.642	327.162	1	146.49	C	C
ATOM	7803	O	ASP	N	212	-42.565	188.532	327.213	1	137.93	C	O
ATOM	7804	N	TYR	N	213	-40.521	188.026	328.024	1	141	C	N
ATOM	7805	CA	TYR	N	213	-40.93	187.706	329.404	1	138.19	C	C
ATOM	7806	CB	TYR	N	213	-40.234	186.451	329.937	1	133.23	C	C
ATOM	7807	CG	TYR	N	213	-40.448	186.207	331.429	1	136.07	C	C
ATOM	7808	CD1	TYR	N	213	-41.731	186.272	332	1	136.8	C	C
ATOM	7809	CE1	TYR	N	213	-41.93	186.052	333.363	1	135.39	C	C
ATOM	7810	CZ	TYR	N	213	-40.839	185.754	334.182	1	135.83	C	C
ATOM	7811	OH	TYR	N	213	-41.029	185.532	335.535	1	118	C	O
ATOM	7812	CE2	TYR	N	213	-39.559	185.681	333.638	1	134.94	C	C
ATOM	7813	CD2	TYR	N	213	-39.369	185.905	332.273	1	136.33	C	C
ATOM	7814	C	TYR	N	213	-40.595	188.898	330.298	1	143.49	C	C
ATOM	7815	O	TYR	N	213	-41.397	189.289	331.155	1	140.73	C	O
ATOM	7816	N	GLU	N	214	-39.393	189.443	330.095	1	150.54	C	N
ATOM	7817	CA	GLU	N	214	-38.941	190.697	330.723	1	155.62	C	C
ATOM	7818	CB	GLU	N	214	-37.549	191.118	330.194	1	151.54	C	C
ATOM	7819	CG	GLU	N	214	-36.388	190.146	330.459	1	148.76	C	C
ATOM	7820	CD	GLU	N	214	-35.693	190.312	331.802	1	140.1	C	C
ATOM	7821	OE1	GLU	N	214	-34.6	189.728	331.962	1	124.26	C	O
ATOM	7822	OE2	GLU	N	214	-36.222	191.001	332.699	1	141	C	O
ATOM	7823	C	GLU	N	214	-39.947	191.829	330.464	1	156.03	C	C
ATOM	7824	O	GLU	N	214	-40.317	192.559	331.389	1	146.61	C	O
ATOM	7825	N	LYS	N	215	-40.422	191.925	329.217	1	157.88	C	N
ATOM	7826	CA	LYS	N	215	-41.339	192.995	328.782	1	162.61	C	C
ATOM	7827	CB	LYS	N	215	-41.343	193.095	327.247	1	159.55		C
ATOM	7828	C	LYS	N	215	-42.796	192.901	329.284	1	164.03	C	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	7829	O	LYS	N	215	-43.672	193.573	328.73	1	161.48	C	O
ATOM	7830	N	HIS	N	216	-43.067	192.062	330.288	1	161.96	C	N
ATOM	7831	CA	HIS	N	216	-44.306	192.139	331.076	1	159.88	C	C
ATOM	7832	CB	HIS	N	216	-45.356	191.154	330.554	1	158.96	C	C
ATOM	7833	CG	HIS	N	216	-45.616	191.267	329.082	1	155.61	C	C
ATOM	7834	ND1	HIS	N	216	-46.578	192.102	328.553	1	153.21	C	N
ATOM	7835	CE1	HIS	N	216	-46.58	191.99	327.237	1	150.62	C	C
ATOM	7836	NE2	HIS	N	216	-45.65	191.118	326.891	1	150.41	C	N
ATOM	7837	CD2	HIS	N	216	-45.032	190.653	328.027	1	152.25	C	C
ATOM	7838	C	HIS	N	216	-43.994	191.872	332.554	1	158.35	C	C
ATOM	7839	O	HIS	N	216	-42.955	191.283	332.876	1	149.47	C	O
ATOM	7840	N	LYS	N	217	-44.903	192.3	333.436	1	161.03	C	N
ATOM	7841	CA	LYS	N	217	-44.663	192.347	334.894	1	157.02	C	C
ATOM	7842	CB	LYS	N	217	-45.019	193.739	335.423	1	155.51		C
ATOM	7843	C	LYS	N	217	-45.405	191.299	335.744	1	151.35	C	C
ATOM	7844	O	LYS	N	217	-45.286	191.308	336.971	1	144.31	C	O
ATOM	7845	N	VAL	N	218	-46.163	190.405	335.112	1	151.29	C	N
ATOM	7846	CA	VAL	N	218	-46.925	189.392	335.846	1	153.28	C	C
ATOM	7847	CB	VAL	N	218	-48.266	189.959	336.341	1	137.33		C
ATOM	7848	C	VAL	N	218	-47.209	188.147	335.01	1	164.3	C	C
ATOM	7849	O	VAL	N	218	-47.063	188.154	333.783	1	170.73	C	O
ATOM	7850	N	TYR	N	219	-47.611	187.081	335.7	1	170.72	C	N
ATOM	7851	CA	TYR	N	219	-47.963	185.81	335.065	1	164.78	C	C
ATOM	7852	CB	TYR	N	219	-46.704	184.969	334.834	1	152.9	C	C
ATOM	7853	C	TYR	N	219	-48.983	185.049	335.923	1	164.41	C	C
ATOM	7854	O	TYR	N	219	-48.616	184.164	336.7	1	166.11	C	O
ATOM	7855	N	ALA	N	220	-50.257	185.425	335.777	1	161.34	C	N
ATOM	7856	CA	ALA	N	220	-51.381	184.791	336.483	1	157.15	C	C
ATOM	7857	CB	ALA	N	220	-52.408	185.839	336.885	1	155.61	C	C
ATOM	7858	C	ALA	N	220	-52.03	183.735	335.588	1	159.6	C	C
ATOM	7859	O	ALA	N	220	-52.21	183.973	334.391	1	170.16	C	O
ATOM	7860	N	CYS	N	221	-52.393	182.589	336.171	1	150.85	C	N
ATOM	7861	CA	CYS	N	221	-52.883	181.43	335.41	1	146.1	C	C
ATOM	7862	CB	CYS	N	221	-51.867	180.296	335.515	1	154.51	C	C
ATOM	7863	SG	CYS	N	221	-52.305	178.805	334.595	1	181.12	C	S
ATOM	7864	C	CYS	N	221	-54.259	180.944	335.873	1	137.14	C	C
ATOM	7865	O	CYS	N	221	-54.386	180.341	336.942	1	121.19	C	O
ATOM	7866	N	GLU	N	222	-55.279	181.197	335.05	1	140.72	C	N
ATOM	7867	CA	GLU	N	222	-56.652	180.763	335.338	1	142.35	C	C
ATOM	7868	CB	GLU	N	222	-57.668	181.565	334.513	1	143.98	C	C
ATOM	7869	C	GLU	N	222	-56.821	179.266	335.072	1	137.38	C	C
ATOM	7870	O	GLU	N	222	-56.128	178.699	334.225	1	128.2	C	O
ATOM	7871	N	VAL	N	223	-57.742	178.642	335.808	1	139.95	C	N
ATOM	7872	CA	VAL	N	223	-58.04	177.205	335.692	1	142.13	C	C
ATOM	7873	CB	VAL	N	223	-57.232	176.381	336.725	1	145.51	C	C

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ATOM	7874	CG1	VAL	N	223	-57.761	174.95	336.851	1	144.86	C	C
ATOM	7875	CG2	VAL	N	223	-55.749	176.383	336.361	1	143.85	C	C
ATOM	7876	C	VAL	N	223	-59.544	176.975	335.876	1	138.9	C	C
ATOM	7877	O	VAL	N	223	-60.149	177.507	336.815	1	137.11	C	O
ATOM	7878	N	THR	N	224	-60.117	176.145	335.002	1	134.17	C	N
ATOM	7879	CA	THR	N	224	-61.566	176.078	334.804	1	132.18	C	C
ATOM	7880	CB	THR	N	224	-61.94	176.759	333.463	1	131.33	C	C
ATOM	7881	OG1	THR	N	224	-61.032	177.84	333.192	1	117.6	C	O
ATOM	7882	CG2	THR	N	224	-63.378	177.282	333.502	1	133.33	C	C
ATOM	7883	C	THR	N	224	-62.079	174.631	334.835	1	131.28	C	C
ATOM	7884	O	THR	N	224	-62.753	174.17	333.906	1	141.04	C	O
ATOM	7885	N	HIS	N	225	-61.775	173.925	335.922	1	119.98	C	N
ATOM	7886	CA	HIS	N	225	-62.122	172.502	336.044	1	119	C	C
ATOM	7887	CB	HIS	N	225	-61.302	171.829	337.149	1	128.37	C	C
ATOM	7888	C	HIS	N	225	-63.593	172.308	336.345	1	108	C	C
ATOM	7889	O	HIS	N	225	-64.295	173.268	336.642	1	102.96	C	O
ATOM	7890	N	GLN	N	226	-64.039	171.055	336.274	1	105.24	C	N
ATOM	7891	CA	GLN	N	226	-65.417	170.697	336.598	1	104.27	C	C
ATOM	7892	CB	GLN	N	226	-65.802	169.327	336.017	1	106.6		C
ATOM	7893	CG	GLN	N	226	-67.281	168.98	336.219	1	109.77		C
ATOM	7894	CD	GLN	N	226	-67.694	167.65	335.604	1	110.37		C
ATOM	7895	OE1	GLN	N	226	-67.399	167.37	334.439	1	101.55		O
ATOM	7896	NE2	GLN	N	226	-68.396	166.824	336.386	1	111.16		N
ATOM	7897	C	GLN	N	226	-65.654	170.707	338.104	1	100.77	C	C
ATOM	7898	O	GLN	N	226	-66.699	171.154	338.557	1	102.13	C	O
ATOM	7899	N	GLY	N	227	-64.694	170.213	338.876	1	107.51	C	N
ATOM	7900	CA	GLY	N	227	-64.837	170.139	340.33	1	118.56	C	C
ATOM	7901	C	GLY	N	227	-65.243	171.431	341.033	1	128.02	C	C
ATOM	7902	O	GLY	N	227	-65.87	171.384	342.099	1	127.69	C	O
ATOM	7903	N	LEU	N	228	-64.896	172.575	340.435	1	134.98	C	N
ATOM	7904	CA	LEU	N	228	-65.13	173.902	341.025	1	140.43	C	C
ATOM	7905	CB	LEU	N	228	-63.996	174.849	340.609	1	138.63		C
ATOM	7906	CG	LEU	N	228	-62.565	174.39	340.902	1	128.96		C
ATOM	7907	CD1	LEU	N	228	-61.567	175.276	340.174	1	125.97		C
ATOM	7908	CD2	LEU	N	228	-62.307	174.387	342.401	1	129.17		C
ATOM	7909	C	LEU	N	228	-66.469	174.552	340.64	1	143.13	C	C
ATOM	7910	O	LEU	N	228	-67.123	174.147	339.67	1	142.46	C	O
ATOM	7911	N	SER	N	229	-66.856	175.562	341.425	1	140.75	C	N
ATOM	7912	CA	SER	N	229	-67.958	176.467	341.092	1	135.9	C	C
ATOM	7913	CB	SER	N	229	-68.698	176.906	342.356	1	129.2	C	C
ATOM	7914	OG	SER	N	229	-67.847	177.666	343.196	1	119.91		O
ATOM	7915	C	SER	N	229	-67.376	177.68	340.357	1	139.01	C	C
ATOM	7916	O	SER	N	229	-67.63	177.869	339.162	1	144.83	C	O
ATOM	7917	N	SER	N	230	-66.584	178.483	341.07	1	132.25	C	N
ATOM	7918	CA	SER	N	230	-65.865	179.606	340.458	1	128.13	C	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	7919	CB	SER	N	230	-65.586	180.729	341.475	1	126.79	C	C
ATOM	7920	OG	SER	N	230	-66.58	181.741	341.41	1	121.56	C	O
ATOM	7921	C	SER	N	230	-64.551	179.095	339.862	1	118.05	C	C
ATOM	7922	O	SER	N	230	-63.813	178.38	340.543	1	105.86	C	O
ATOM	7923	N	PRO	N	231	-64.269	179.43	338.584	1	114.31	C	N
ATOM	7924	CA	PRO	N	231	-62.91	179.267	338.04	1	118.02	C	C
ATOM	7925	CB	PRO	N	231	-63.024	179.866	336.637	1	115.85	C	C
ATOM	7926	CG	PRO	N	231	-64.441	179.59	336.251	1	119.85	C	C
ATOM	7927	CD	PRO	N	231	-65.255	179.681	337.514	1	114.49	C	C
ATOM	7928	C	PRO	N	231	-61.851	179.995	338.874	1	118.39	C	C
ATOM	7929	O	PRO	N	231	-62.144	181.032	339.473	1	125.75	C	O
ATOM	7930	N	VAL	N	232	-60.64	179.445	338.909	1	118.14	C	N
ATOM	7931	CA	VAL	N	232	-59.627	179.84	339.893	1	123.29	C	C
ATOM	7932	CB	VAL	N	232	-59.378	178.682	340.902	1	135.51		C
ATOM	7933	CG1	VAL	N	232	-58.089	178.86	341.715	1	134.33		C
ATOM	7934	CG2	VAL	N	232	-60.574	178.547	341.837	1	138.4		C
ATOM	7935	C	VAL	N	232	-58.33	180.271	339.216	1	118.67	C	C
ATOM	7936	O	VAL	N	232	-57.931	179.703	338.201	1	114.81	C	O
ATOM	7937	N	THR	N	233	-57.684	181.275	339.806	1	113.41	C	N
ATOM	7938	CA	THR	N	233	-56.406	181.786	339.333	1	112.52	C	C
ATOM	7939	CB	THR	N	233	-56.387	183.325	339.406	1	104.8	C	C
ATOM	7940	OG1	THR	N	233	-55.17	183.821	338.836	1	107.36		O
ATOM	7941	C	THR	N	233	-55.228	181.214	340.143	1	113.48	C	C
ATOM	7942	O	THR	N	233	-55.409	180.46	341.109	1	107.87	C	O
ATOM	7943	N	LYS	N	234	-54.024	181.559	339.697	1	109.6	C	N
ATOM	7944	CA	LYS	N	234	-52.784	181.357	340.451	1	111.59	C	C
ATOM	7945	CB	LYS	N	234	-52.162	179.992	340.156	1	106.1	C	C
ATOM	7946	C	LYS	N	234	-51.849	182.492	340.036	1	120.59	C	C
ATOM	7947	O	LYS	N	234	-51.202	182.418	338.989	1	120.59	C	O
ATOM	7948	N	SER	N	235	-51.796	183.541	340.858	1	129.12	C	N
ATOM	7949	CA	SER	N	235	-51.312	184.862	340.423	1	125.05	C	C
ATOM	7950	CB	SER	N	235	-51.913	185.966	341.309	1	116.39	C	C
ATOM	7951	OG	SER	N	235	-51.678	185.709	342.68	1	109.77	C	O
ATOM	7952	C	SER	N	235	-49.786	185.033	340.326	1	126.1	C	C
ATOM	7953	O	SER	N	235	-49.268	185.258	339.228	1	118.65	C	O
ATOM	7954	N	PHE	N	236	-49.082	184.928	341.458	1	133.07	C	N
ATOM	7955	CA	PHE	N	236	-47.685	185.418	341.579	1	138.52	C	C
ATOM	7956	CB	PHE	N	236	-47.054	185.013	342.928	1	142.19	C	C
ATOM	7957	CG	PHE	N	236	-47.672	185.713	344.125	1	149.86	C	C
ATOM	7958	CD1	PHE	N	236	-47.598	187.105	344.256	1	148.1	C	C
ATOM	7959	CE1	PHE	N	236	-48.178	187.751	345.343	1	144.99	C	C
ATOM	7960	CZ	PHE	N	236	-48.837	187.014	346.319	1	146.29	C	C
ATOM	7961	CE2	PHE	N	236	-48.919	185.631	346.206	1	144.55	C	C
ATOM	7962	CD2	PHE	N	236	-48.342	184.987	345.116	1	147.99	C	C
ATOM	7963	C	PHE	N	236	-46.822	184.965	340.389	1	136.53	C	C

1	2	3	4	5	6	7	8	9	10	11	12	13
ATOM	7964	O	PHE	N	236	-46.558	183.774	340.299	1	126.68	C	O
ATOM	7965	N	ASN	N	237	-46.375	185.826	339.455	1	141.48	C	N
ATOM	7966	CA	ASN	N	237	-46.234	187.318	339.477	1	142.65	C	C
ATOM	7967	CB	ASN	N	237	-47.345	188.114	340.194	1	136.81	C	C
ATOM	7968	CG	ASN	N	237	-47.438	189.558	339.718	1	137.22	C	C
ATOM	7969	OD1	ASN	N	237	-46.429	190.263	339.612	1	127.3	C	O
ATOM	7970	ND2	ASN	N	237	-48.658	190.013	339.44	1	138.76	C	N
ATOM	7971	C	ASN	N	237	-44.841	187.699	339.992	1	144.58	C	C
ATOM	7972	O	ASN	N	237	-44.524	187.507	341.173	1	146.5	C	O
ATOM	7973	N	ARG	N	238	-44.028	188.248	339.086	1	137.95	C	N
ATOM	7974	CA	ARG	N	238	-42.591	188.452	339.322	1	133.23	C	C
ATOM	7975	CB	ARG	N	238	-41.85	188.635	337.98	1	130.42	C	C
ATOM	7976	CG	ARG	N	238	-42.1	189.953	337.258	1	127.64	C	C
ATOM	7977	CD	ARG	N	238	-41.954	189.842	335.743	1	124.12	C	C
ATOM	7978	NE	ARG	N	238	-40.681	190.375	335.251	1	129.34	C	N
ATOM	7979	CZ	ARG	N	238	-39.513	189.721	335.224	1	131.07	C	C
ATOM	7980	NH1	ARG	N	238	-39.4	188.471	335.673	1	130.45	C	N
ATOM	7981	NH2	ARG	N	238	-38.431	190.332	334.743	1	126.99	C	N
ATOM	7982	C	ARG	N	238	-42.304	189.592	340.308	1	132.02	C	C
ATOM	7983	O	ARG	N	238	-43.238	190.171	340.881	1	120.08	C	O
ATOM	7984	N	GLY	N	239	-41.016	189.899	340.5	1	135.97	C	N
ATOM	7985	CA	GLY	N	239	-40.543	190.734	341.609	1	133.6	C	C
ATOM	7986	C	GLY	N	239	-40.021	189.764	342.646	1	132.32	C	C
ATOM	7987	O	GLY	N	239	-38.812	189.667	342.868	1	130.47	C	O
ATOM	7988	N	GLU	N	240	-40.951	189.039	343.27	1	131.62	C	N
ATOM	7989	CA	GLU	N	240	-40.632	187.821	344.019	1	127.38	C	C
ATOM	7990	CB	GLU	N	240	-40.01	188.143	345.38	1	123.14	C	C
ATOM	7991	CG	GLU	N	240	-38.987	187.095	345.801	1	123.24	C	C
ATOM	7992	CD	GLU	N	240	-38.583	187.17	347.266	1	126.78	C	C
ATOM	7993	OE1	GLU	N	240	-37.464	186.703	347.585	1	123.27	C	O
ATOM	7994	OE2	GLU	N	240	-39.372	187.676	348.1	1	121.27	C	O
ATOM	7995	C	GLU	N	240	-41.854	186.908	344.197	1	126.83	C	C
ATOM	7996	O	GLU	N	240	-42.996	187.369	344.261	1	134.67	C	O

Column 1 - record name; Column 2 - atom serial number; Column 3 - atom name; Column 4 amino acid residue name; Column 5 - chain identifier; Column 6 - amino acid residue sequence number; Column 7 - orthogonal coordinates for X in Angstroms; Column 8 - orthoganal coordinates for Y in Angstroms; Column 9 - orthoganal coordinates for Z in Angstroms; Column 10 - occupancy; Column 11 - temperature factor; Column 12 - Segment identifier; Column 13 - element symbol.

Table 51

1	2	3	4	5	6	7	8	9	10	11	12
ATOM	1	N	SER	A	130	-65.443	57.893	84.319	1	130.35	N
ATOM	2	CA	SER	A	130	-64.145	58.451	84.822	1	125.94	C
ATOM	3	CB	SER	A	130	-62.974	57.494	84.49	1	128.08	C
ATOM	4	OG	SER	A	130	-61.735	57.958	85.009	1	120.93	O
ATOM	5	C	SER	A	130	-63.908	59.843	84.236	1	113.16	C
ATOM	6	O	SER	A	130	-63.04	60.018	83.378	1	108.46	O
ATOM	7	N	CYS	A	131	-64.676	60.825	84.716	1	105.61	N
ATOM	8	CA	CYS	A	131	-64.593	62.219	84.232	1	112.55	C
ATOM	9	CB	CYS	A	131	-65.469	63.155	85.059	1	124.37	C
ATOM	10	SG	CYS	A	131	-67.248	62.811	85.114	1	164.42	S
ATOM	11	C	CYS	A	131	-63.176	62.79	84.23	1	112.6	C
ATOM	12	O	CYS	A	131	-62.913	63.79	83.561	1	103.6	O
ATOM	13	N	LEU	A	132	-62.291	62.171	85.013	1	116.79	N
ATOM	14	CA	LEU	A	132	-60.846	62.361	84.894	1	115.73	C
ATOM	15	CB	LEU	A	132	-60.123	61.596	86.022	1	125.49	C
ATOM	16	CG	LEU	A	132	-58.631	61.818	86.309	1	132.8	C
ATOM	17	CD1	LEU	A	132	-57.723	61.204	85.25	1	132.85	C
ATOM	18	CD2	LEU	A	132	-58.332	63.301	86.502	1	136.91	C
ATOM	19	C	LEU	A	132	-60.331	61.93	83.514	1	103.49	C
ATOM	20	O	LEU	A	132	-59.943	62.783	82.729	1	96.19	O
ATOM	21	N	GLU	A	133	-60.369	60.627	83.219	1	101.07	N
ATOM	22	CA	GLU	A	133	-59.723	60.046	82.013	1	105.54	C
ATOM	23	CB	GLU	A	133	-59.754	58.511	82.043	1	121.16	C
ATOM	24	CG	GLU	A	133	-58.494	57.841	82.566	1	132.64	C
ATOM	25	CD	GLU	A	133	-58.577	56.323	82.482	1	145.79	C
ATOM	26	OE1	GLU	A	133	-59.621	55.748	82.882	1	158.71	O
ATOM	27	OE2	GLU	A	133	-57.599	55.701	82.014	1	151.66	O
ATOM	28	C	GLU	A	133	-60.328	60.492	80.687	1	97.02	C
ATOM	29	O	GLU	A	133	-59.617	60.673	79.691	1	93.59	O
ATOM	30	N	VAL	A	134	-61.648	60.602	80.666	1	91.54	N
ATOM	31	CA	VAL	A	134	-62.356	61.19	79.537	1	95.93	C
ATOM	32	CB	VAL	A	134	-63.89	61.203	79.805	1	103.7	C
ATOM	33	CG1	VAL	A	134	-64.606	62.355	79.11	1	103.61	C
ATOM	34	CG2	VAL	A	134	-64.512	59.866	79.417	1	108.87	C
ATOM	35	C	VAL	A	134	-61.798	62.595	79.274	1	99.61	C
ATOM	36	O	VAL	A	134	-61.355	62.893	78.167	1	101.32	O
ATOM	37	N	ALA	A	135	-61.79	63.433	80.307	1	99.84	N
ATOM	38	CA	ALA	A	135	-61.307	64.803	80.179	1	98.18	C
ATOM	39	CB	ALA	A	135	-61.644	65.583	81.43	1	94.56	C
ATOM	40	C	ALA	A	135	-59.803	64.95	79.842	1	107.79	C
ATOM	41	O	ALA	A	135	-59.426	65.995	79.323	1	109.44	O

ATOM	42	N	GLU	A	136	-58.959	63.943	80.142	1	121.08	N
ATOM	43	CA	GLU	A	136	-57.541	63.901	79.668	1	123.88	C
ATOM	44	CB	GLU	A	136	-56.789	62.627	80.094	1	125.02	C
ATOM	45	CG	GLU	A	136	-56.537	62.367	81.571	1	137.5	C
ATOM	46	CD	GLU	A	136	-55.943	60.968	81.807	1	152.51	C
ATOM	47	OE1	GLU	A	136	-56.183	60.37	82.884	1	151.47	O
ATOM	48	OE2	GLU	A	136	-55.239	60.443	80.908	1	152.37	O
ATOM	49	C	GLU	A	136	-57.488	63.892	78.142	1	130.61	C
ATOM	50	O	GLU	A	136	-56.714	64.636	77.514	1	132.04	O
ATOM	51	N	ALA	A	137	-58.285	62.998	77.558	1	121.06	N
ATOM	52	CA	ALA	A	137	-58.367	62.881	76.114	1	110.34	C
ATOM	53	CB	ALA	A	137	-59.251	61.707	75.711	1	108.04	C
ATOM	54	C	ALA	A	137	-58.867	64.193	75.512	1	94.96	C
ATOM	55	O	ALA	A	137	-58.249	64.706	74.604	1	100.46	O
ATOM	56	N	CYS	A	138	-59.935	64.759	76.055	1	88.13	N
ATOM	57	CA	CYS	A	138	-60.534	65.97	75.481	1	101.21	C
ATOM	58	CB	CYS	A	138	-61.75	66.418	76.298	1	110.58	C
ATOM	59	SG	CYS	A	138	-63.151	66.784	75.227	1	137.63	S
ATOM	60	C	CYS	A	138	-59.539	67.132	75.364	1	110.2	C
ATOM	61	O	CYS	A	138	-59.477	67.817	74.335	1	104.19	O
ATOM	62	N	VAL	A	139	-58.778	67.332	76.443	1	119.59	N
ATOM	63	CA	VAL	A	139	-57.638	68.264	76.506	1	105.54	C
ATOM	64	CB	VAL	A	139	-56.934	68.165	77.877	1	98.35	C
ATOM	65	CG1	VAL	A	139	-55.527	68.751	77.861	1	99	C
ATOM	66	CG2	VAL	A	139	-57.782	68.85	78.929	1	101.31	C
ATOM	67	C	VAL	A	139	-56.637	67.972	75.398	1	110.56	C
ATOM	68	O	VAL	A	139	-56.193	68.888	74.71	1	111.94	O
ATOM	69	N	GLY	A	140	-56.294	66.694	75.224	1	108.63	N
ATOM	70	CA	GLY	A	140	-55.431	66.268	74.117	1	101.02	C
ATOM	71	C	GLY	A	140	-56.099	66.137	72.751	1	88.07	C
ATOM	72	O	GLY	A	140	-55.764	65.205	72.008	1	88.97	O
ATOM	73	N	ASP	A	141	-57.05	67.021	72.424	1	70.37	N
ATOM	74	CA	ASP	A	141	-57.607	67.082	71.077	1	76.33	C
ATOM	75	CB	ASP	A	141	-58.83	66.174	70.871	1	80.57	C
ATOM	76	CG	ASP	A	141	-59.397	66.263	69.425	1	84.37	C
ATOM	77	OD1	ASP	A	141	-58.753	65.709	68.505	1	83.75	O
ATOM	78	OD2	ASP	A	141	-60.466	66.901	69.206	1	82.25	O
ATOM	79	C	ASP	A	141	-57.992	68.494	70.711	1	80.46	C
ATOM	80	O	ASP	A	141	-59.082	68.967	71.066	1	86.03	O
ATOM	81	N	VAL	A	142	-57.069	69.153	70.008	1	81.36	N
ATOM	82	CA	VAL	A	142	-57.316	70.357	69.201	1	78.93	C
ATOM	83	CB	VAL	A	142	-56.995	70.152	67.693	1	70.38	C
ATOM	84	CG1	VAL	A	142	-56.095	71.27	67.183	1	68.74	C
ATOM	85	CG2	VAL	A	142	-56.392	68.781	67.428	1	67.97	C

ATOM	86	C	VAL	A	142	-58.75	70.817	69.28	1	87.23	C
ATOM	87	O	VAL	A	142	-59.057	71.843	69.895	1	89.53	O
ATOM	88	N	VAL	A	143	-59.627	69.991	68.72	1	95.58	N
ATOM	89	CA	VAL	A	143	-60.978	70.407	68.43	1	105.28	C
ATOM	90	CB	VAL	A	143	-61.756	69.44	67.509	1	111.06	C
ATOM	91	CG1	VAL	A	143	-62.936	70.209	66.907	1	105.58	C
ATOM	92	CG2	VAL	A	143	-60.865	68.77	66.442	1	114.45	C
ATOM	93	C	VAL	A	143	-61.768	70.522	69.712	1	102.5	C
ATOM	94	O	VAL	A	143	-62.403	71.561	69.956	1	100.82	O
ATOM	95	N	CYS	A	144	-61.759	69.447	70.504	1	93.94	N
ATOM	96	CA	CYS	A	144	-62.488	69.479	71.748	1	95.48	C
ATOM	97	CB	CYS	A	144	-62.451	68.154	72.537	1	101.17	C
ATOM	98	SG	CYS	A	144	-62.638	68.504	74.31	1	123.87	S
ATOM	99	C	CYS	A	144	-61.85	70.599	72.542	1	88.23	C
ATOM	100	O	CYS	A	144	-62.454	71.654	72.759	1	75.07	O
ATOM	101	N	ASN	A	145	-60.597	70.37	72.913	1	86.96	N
ATOM	102	CA	ASN	A	145	-59.918	71.2	73.88	1	84.04	C
ATOM	103	CB	ASN	A	145	-58.442	70.892	73.891	1	84.9	C
ATOM	104	CG	ASN	A	145	-57.644	71.964	74.568	1	87.07	C
ATOM	105	OD1	ASN	A	145	-57.368	72.997	73.968	1	84.77	O
ATOM	106	ND2	ASN	A	145	-57.251	71.724	75.81	1	92.06	N
ATOM	107	C	ASN	A	145	-60.137	72.668	73.624	1	83.74	C
ATOM	108	O	ASN	A	145	-60.527	73.395	74.529	1	81.42	O
ATOM	109	N	ALA	A	146	-59.897	73.107	72.394	1	89.19	N
ATOM	110	CA	ALA	A	146	-60.188	74.497	72.035	1	96.14	C
ATOM	111	CB	ALA	A	146	-60.13	74.698	70.53	1	95.87	C
ATOM	112	C	ALA	A	146	-61.562	74.895	72.565	1	99.47	C
ATOM	113	O	ALA	A	146	-61.696	75.908	73.255	1	99.55	O
ATOM	114	N	GLN	A	147	-62.562	74.065	72.259	1	101.42	N
ATOM	115	CA	GLN	A	147	-63.951	74.327	72.632	1	97.97	C
ATOM	116	CB	GLN	A	147	-64.916	73.432	71.847	1	100.15	C
ATOM	117	CG	GLN	A	147	-65.038	73.812	70.382	1	105.19	C
ATOM	118	CD	GLN	A	147	-65.946	75.018	70.151	1	109.79	C
ATOM	119	OE1	GLN	A	147	-65.936	76.001	70.908	1	104.39	O
ATOM	120	NE2	GLN	A	147	-66.739	74.946	69.093	1	115.73	N
ATOM	121	C	GLN	A	147	-64.226	74.192	74.114	1	96.75	C
ATOM	122	O	GLN	A	147	-65.074	74.919	74.628	1	100	O
ATOM	123	N	LEU	A	148	-63.533	73.263	74.782	1	93.18	N
ATOM	124	CA	LEU	A	148	-63.67	73.049	76.239	1	91.61	C
ATOM	125	CB	LEU	A	148	-62.816	71.862	76.693	1	92.93	C
ATOM	126	CG	LEU	A	148	-62.845	71.432	78.16	1	94.16	C
ATOM	127	CD1	LEU	A	148	-64.256	71.001	78.556	1	95.2	C
ATOM	128	CD2	LEU	A	148	-61.84	70.307	78.39	1	93.72	C
ATOM	129	C	LEU	A	148	-63.307	74.287	77.03	1	92.13	C

ATOM	130	O	LEU	A	148	-64.151	74.833	77.743	1	91.59	O
ATOM	131	N	ALA	A	149	-62.063	74.733	76.887	1	94.53	N
ATOM	132	CA	ALA	A	149	-61.651	76.038	77.375	1	94.63	C
ATOM	133	CB	ALA	A	149	-60.309	76.426	76.774	1	97.68	C
ATOM	134	C	ALA	A	149	-62.718	77.08	77.035	1	90.19	C
ATOM	135	O	ALA	A	149	-63.335	77.628	77.939	1	91.67	O
ATOM	136	N	SER	A	150	-62.985	77.292	75.742	1	90.86	N
ATOM	137	CA	SER	A	150	-63.985	78.291	75.279	1	95.43	C
ATOM	138	CB	SER	A	150	-64.382	78.065	73.797	1	93.55	C
ATOM	139	OG	SER	A	150	-63.667	78.91	72.905	1	91.57	O
ATOM	140	C	SER	A	150	-65.244	78.313	76.152	1	101.09	C
ATOM	141	O	SER	A	150	-65.807	79.371	76.425	1	104.1	O
ATOM	142	N	TYR	A	151	-65.665	77.126	76.578	1	107.84	N
ATOM	143	CA	TYR	A	151	-66.849	76.942	77.41	1	110.15	C
ATOM	144	CB	TYR	A	151	-67.504	75.576	77.08	1	116.54	C
ATOM	145	CG	TYR	A	151	-67.978	74.689	78.215	1	110.83	C
ATOM	146	CD1	TYR	A	151	-69.238	74.879	78.803	1	109.55	C
ATOM	147	CE1	TYR	A	151	-69.685	74.044	79.814	1	106.42	C
ATOM	148	CZ	TYR	A	151	-68.872	72.99	80.234	1	106.36	C
ATOM	149	OH	TYR	A	151	-69.302	72.159	81.235	1	106.38	O
ATOM	150	CE2	TYR	A	151	-67.632	72.767	79.65	1	97.34	C
ATOM	151	CD2	TYR	A	151	-67.196	73.607	78.644	1	96.64	C
ATOM	152	C	TYR	A	151	-66.521	77.179	78.89	1	103.62	C
ATOM	153	O	TYR	A	151	-67.081	78.103	79.464	1	113.67	O
ATOM	154	N	LEU	A	152	-65.605	76.41	79.492	1	94.99	N
ATOM	155	CA	LEU	A	152	-65.192	76.651	80.897	1	94.45	C
ATOM	156	CB	LEU	A	152	-63.88	75.931	81.263	1	90.41	C
ATOM	157	CG	LEU	A	152	-63.811	74.4	81.26	1	91.26	C
ATOM	158	CD1	LEU	A	152	-62.583	73.916	82.004	1	88.55	C
ATOM	159	CD2	LEU	A	152	-65.038	73.764	81.883	1	98.45	C
ATOM	160	C	LEU	A	152	-65.013	78.146	81.135	1	99.98	C
ATOM	161	O	LEU	A	152	-65.712	78.742	81.941	1	94.88	O
ATOM	162	N	LYS	A	153	-64.102	78.735	80.371	1	107.57	N
ATOM	163	CA	LYS	A	153	-63.905	80.177	80.317	1	112.09	C
ATOM	164	CB	LYS	A	153	-63.069	80.541	79.06	1	124.1	C
ATOM	165	CG	LYS	A	153	-62.158	81.756	79.174	1	130.99	C
ATOM	166	CD	LYS	A	153	-62.855	83.054	78.785	1	137.21	C
ATOM	167	CE	LYS	A	153	-62.089	84.266	79.292	1	139.02	C
ATOM	168	NZ	LYS	A	153	-62.115	84.377	80.783	1	136.84	N
ATOM	169	C	LYS	A	153	-65.263	80.9	80.337	1	103.02	C
ATOM	170	O	LYS	A	153	-65.568	81.603	81.283	1	101.82	O
ATOM	171	N	ALA	A	154	-66.099	80.672	79.333	1	107.04	N
ATOM	172	CA	ALA	A	154	-67.387	81.387	79.217	1	121	C
ATOM	173	CB	ALA	A	154	-68.09	80.999	77.915	1	128.11	C

ATOM	174	C	ALA	A	154	-68.355	81.18	80.392	1	121.74	C
ATOM	175	O	ALA	A	154	-69.182	82.045	80.669	1	117.84	O
ATOM	176	N	CYS	A	155	-68.253	80.027	81.05	1	123.07	N
ATOM	177	CA	CYS	A	155	-69.245	79.555	82.006	1	121.4	C
ATOM	178	CB	CYS	A	155	-70.081	78.451	81.3	1	128.52	C
ATOM	179	SG	CYS	A	155	-71.525	77.709	82.12	1	130.53	S
ATOM	180	C	CYS	A	155	-68.55	79.064	83.283	1	123.27	C
ATOM	181	O	CYS	A	155	-69.064	78.192	83.977	1	122.52	O
ATOM	182	N	SER	A	156	-67.385	79.639	83.602	1	139.55	N
ATOM	183	CA	SER	A	156	-66.743	79.426	84.909	1	155.51	C
ATOM	184	CB	SER	A	156	-65.224	79.675	84.867	1	146.94	C
ATOM	185	OG	SER	A	156	-64.902	81.02	85.202	1	131.03	O
ATOM	186	C	SER	A	156	-67.368	80.402	85.896	1	184.92	C
ATOM	187	O	SER	A	156	-68.268	81.173	85.538	1	199.84	O
ATOM	188	N	ALA	A	157	-66.873	80.378	87.132	1	205.02	N
ATOM	189	CA	ALA	A	157	-67.229	81.385	88.132	1	220.9	C
ATOM	190	CB	ALA	A	157	-66.577	81.052	89.468	1	218.96	C
ATOM	191	C	ALA	A	157	-66.826	82.795	87.647	1	233.75	C
ATOM	192	O	ALA	A	157	-65.748	83.295	87.98	1	253.82	O
ATOM	193	N	ASN	A	158	-67.71	83.389	86.837	1	229.83	N
ATOM	194	CA	ASN	A	158	-67.55	84.728	86.221	1	227.63	C
ATOM	195	CB	ASN	A	158	-68.915	85.191	85.66	1	209.78	C
ATOM	196	CG	ASN	A	158	-68.822	86.368	84.704	1	192.99	C
ATOM	197	OD1	ASN	A	158	-69.1	86.226	83.515	1	169.67	O
ATOM	198	ND2	ASN	A	158	-68.487	87.543	85.225	1	191.17	N
ATOM	199	C	ASN	A	158	-66.966	85.774	87.183	1	243.37	C
ATOM	200	O	ASN	A	158	-65.971	86.43	86.863	1	265.55	O
ATOM	201	N	GLY	A	159	-67.589	85.913	88.352	1	242.68	N
ATOM	202	CA	GLY	A	159	-67.072	86.759	89.434	1	232.55	C
ATOM	203	C	GLY	A	159	-68.158	87.266	90.372	1	229.22	C
ATOM	204	O	GLY	A	159	-68.541	88.431	90.267	1	221.87	O
ATOM	205	N	ASN	A	160	-68.672	86.442	91.294	1	230.41	N
ATOM	206	CA	ASN	A	160	-68.291	85.033	91.507	1	239.66	C
ATOM	207	CB	ASN	A	160	-66.994	84.949	92.344	1	236.06	C
ATOM	208	CG	ASN	A	160	-66.049	83.843	91.882	1	218.82	C
ATOM	209	OD1	ASN	A	160	-66.025	82.752	92.454	1	210.96	O
ATOM	210	ND2	ASN	A	160	-65.257	84.129	90.853	1	201.92	N
ATOM	211	C	ASN	A	160	-69.469	84.334	92.237	1	250.9	C
ATOM	212	O	ASN	A	160	-69.777	84.723	93.369	1	264.87	O
ATOM	213	N	PRO	A	161	-70.147	83.341	91.639	1	256.28	N
ATOM	214	CA	PRO	A	161	-69.821	82.744	90.337	1	254.51	C
ATOM	215	CB	PRO	A	161	-70.353	81.306	90.474	1	256.98	C
ATOM	216	CG	PRO	A	161	-71.481	81.41	91.446	1	257.95	C
ATOM	217	CD	PRO	A	161	-71.206	82.589	92.343	1	255.64	C

ATOM	218	C	PRO	A	161	-70.381	83.507	89.104	1	243.57	C
ATOM	219	O	PRO	A	161	-69.895	84.598	88.812	1	253.6	O
ATOM	220	N	CYS	A	162	-71.402	82.986	88.421	1	221.28	N
ATOM	221	CA	CYS	A	162	-71.537	83.198	86.974	1	200.95	C
ATOM	222	CB	CYS	A	162	-71.914	81.876	86.314	1	203.24	C
ATOM	223	SG	CYS	A	162	-73.664	81.451	86.462	1	211.07	S
ATOM	224	C	CYS	A	162	-72.516	84.261	86.479	1	181.29	C
ATOM	225	O	CYS	A	162	-73.358	84.76	87.223	1	182	O
ATOM	226	N	ASP	A	163	-72.36	84.588	85.197	1	161.61	N
ATOM	227	CA	ASP	A	163	-73.439	85.099	84.372	1	155.32	C
ATOM	228	CB	ASP	A	163	-72.955	86.164	83.385	1	150.63	C
ATOM	229	CG	ASP	A	163	-73.9	86.337	82.193	1	144.68	C
ATOM	230	OD1	ASP	A	163	-75.14	86.288	82.369	1	134.58	O
ATOM	231	OD2	ASP	A	163	-73.396	86.517	81.069	1	140.01	O
ATOM	232	C	ASP	A	163	-73.922	83.875	83.616	1	153.34	C
ATOM	233	O	ASP	A	163	-73.137	83.235	82.917	1	149.6	O
ATOM	234	N	LEU	A	164	-75.213	83.578	83.731	1	152.5	N
ATOM	235	CA	LEU	A	164	-75.769	82.301	83.269	1	145.28	C
ATOM	236	CB	LEU	A	164	-76.939	81.892	84.174	1	142.49	C
ATOM	237	CG	LEU	A	164	-77.815	80.697	83.769	1	140.8	C
ATOM	238	CD1	LEU	A	164	-78.199	79.859	84.986	1	143.92	C
ATOM	239	CD2	LEU	A	164	-79.058	81.154	83.007	1	136.81	C
ATOM	240	C	LEU	A	164	-76.193	82.303	81.805	1	139.55	C
ATOM	241	O	LEU	A	164	-75.818	81.398	81.056	1	127.65	O
ATOM	242	N	LYS	A	165	-76.976	83.309	81.416	1	140.59	N
ATOM	243	CA	LYS	A	165	-77.615	83.36	80.088	1	142.89	C
ATOM	244	CB	LYS	A	165	-78.381	84.682	79.901	1	147.91	C
ATOM	245	CG	LYS	A	165	-79.581	84.832	80.834	1	155.57	C
ATOM	246	CD	LYS	A	165	-80.755	85.572	80.201	1	168.23	C
ATOM	247	CE	LYS	A	165	-82.067	85.231	80.911	1	177.41	C
ATOM	248	NZ	LYS	A	165	-83.212	86.122	80.556	1	181.02	N
ATOM	249	C	LYS	A	165	-76.624	83.158	78.941	1	137.1	C
ATOM	250	O	LYS	A	165	-76.849	82.336	78.051	1	124.71	O
ATOM	251	N	GLN	A	166	-75.519	83.894	79	1	142.1	N
ATOM	252	CA	GLN	A	166	-74.455	83.808	77.994	1	140.68	C
ATOM	253	CB	GLN	A	166	-73.473	84.972	78.152	1	139.95	C
ATOM	254	CG	GLN	A	166	-74.119	86.338	77.966	1	136.16	C
ATOM	255	CD	GLN	A	166	-73.119	87.475	77.861	1	134.48	C
ATOM	256	OE1	GLN	A	166	-73.459	88.549	77.368	1	127.88	O
ATOM	257	NE2	GLN	A	166	-71.884	87.248	78.317	1	134.53	N
ATOM	258	C	GLN	A	166	-73.696	82.487	78.075	1	136.52	C
ATOM	259	O	GLN	A	166	-73.287	81.934	77.047	1	131.93	O
ATOM	260	N	CYS	A	167	-73.493	82.006	79.3	1	135.32	N
ATOM	261	CA	CYS	A	167	-72.957	80.663	79.527	1	131.65	C

ATOM	262	CB	CYS	A	167	-72.751	80.38	81.019	1	123.98	C
ATOM	263	SG	CYS	A	167	-73.21	78.694	81.471	1	120.99	S
ATOM	264	C	CYS	A	167	-73.85	79.577	78.926	1	132.31	C
ATOM	265	O	CYS	A	167	-73.343	78.637	78.32	1	133.56	O
ATOM	266	N	GLN	A	168	-75.165	79.71	79.093	1	132.22	N
ATOM	267	CA	GLN	A	168	-76.115	78.679	78.647	1	134.53	C
ATOM	268	CB	GLN	A	168	-77.572	79.051	78.984	1	138.97	C
ATOM	269	CG	GLN	A	168	-78.018	78.613	80.376	1	133.24	C
ATOM	270	CD	GLN	A	168	-79.51	78.777	80.598	1	124.17	C
ATOM	271	OE1	GLN	A	168	-80.12	79.752	80.139	1	119.45	O
ATOM	272	NE2	GLN	A	168	-80.108	77.822	81.312	1	113.79	N
ATOM	273	C	GLN	A	168	-75.993	78.323	77.164	1	134.06	C
ATOM	274	O	GLN	A	168	-75.841	77.145	76.836	1	144.43	O
ATOM	275	N	ALA	A	169	-76.042	79.322	76.281	1	128.21	N
ATOM	276	CA	ALA	A	169	-75.825	79.084	74.839	1	124.55	C
ATOM	277	CB	ALA	A	169	-76.217	80.309	74.019	1	120.84	C
ATOM	278	C	ALA	A	169	-74.376	78.634	74.519	1	115.7	C
ATOM	279	O	ALA	A	169	-74.137	77.971	73.51	1	116.35	O
ATOM	280	N	ALA	A	170	-73.432	78.985	75.39	1	107.64	N
ATOM	281	CA	ALA	A	170	-72.048	78.503	75.319	1	114.87	C
ATOM	282	CB	ALA	A	170	-71.116	79.541	75.941	1	129.47	C
ATOM	283	C	ALA	A	170	-71.793	77.126	75.965	1	111.65	C
ATOM	284	O	ALA	A	170	-70.63	76.744	76.14	1	100.4	O
ATOM	285	N	ILE	A	171	-72.86	76.43	76.373	1	123.52	N
ATOM	286	CA	ILE	A	171	-72.831	74.972	76.668	1	127.93	C
ATOM	287	CB	ILE	A	171	-73.668	74.528	77.912	1	125.88	C
ATOM	288	CG1	ILE	A	171	-73.652	75.557	79.047	1	123.35	C
ATOM	289	CD1	ILE	A	171	-74.782	75.386	80.034	1	119.74	C
ATOM	290	CG2	ILE	A	171	-73.152	73.192	78.443	1	124.57	C
ATOM	291	C	ILE	A	171	-73.404	74.219	75.469	1	119.39	C
ATOM	292	O	ILE	A	171	-72.966	73.119	75.157	1	107.75	O
ATOM	293	N	ARG	A	172	-74.407	74.817	74.828	1	120	N
ATOM	294	CA	ARG	A	172	-74.999	74.282	73.614	1	130.96	C
ATOM	295	CB	ARG	A	172	-76.514	74.557	73.611	1	138.38	C
ATOM	296	CG	ARG	A	172	-77.389	73.406	73.093	1	144.73	C
ATOM	297	CD	ARG	A	172	-78.888	73.715	73.049	1	138.81	C
ATOM	298	NE	ARG	A	172	-79.286	74.698	74.057	1	150.98	N
ATOM	299	CZ	ARG	A	172	-79.268	76.029	73.905	1	165.23	C
ATOM	300	NH1	ARG	A	172	-78.871	76.597	72.764	1	168.14	N
ATOM	301	NH2	ARG	A	172	-79.642	76.812	74.917	1	174.72	N
ATOM	302	C	ARG	A	172	-74.31	74.873	72.37	1	130.64	C
ATOM	303	O	ARG	A	172	-74.868	74.832	71.273	1	141.18	O
ATOM	304	N	PHE	A	173	-73.13	75.472	72.548	1	122.35	N
ATOM	305	CA	PHE	A	173	-72.175	75.625	71.457	1	113.51	C

ATOM	306	CB	PHE	A	173	-71.447	76.969	71.511	1	111.48	C
ATOM	307	CG	PHE	A	173	-71.051	77.492	70.162	1	113.94	C
ATOM	308	CD1	PHE	A	173	-69.843	77.118	69.58	1	111.04	C
ATOM	309	CE1	PHE	A	173	-69.479	77.608	68.325	1	115.69	C
ATOM	310	CZ	PHE	A	173	-70.324	78.478	67.638	1	114.95	C
ATOM	311	CE2	PHE	A	173	-71.534	78.856	68.205	1	117.92	C
ATOM	312	CD2	PHE	A	173	-71.895	78.363	69.461	1	120.66	C
ATOM	313	C	PHE	A	173	-71.204	74.475	71.601	1	102.29	C
ATOM	314	O	PHE	A	173	-71.066	73.661	70.698	1	103.5	O
ATOM	315	N	PHE	A	174	-70.573	74.384	72.767	1	97.67	N
ATOM	316	CA	PHE	A	174	-69.651	73.292	73.081	1	97.23	C
ATOM	317	CB	PHE	A	174	-69.426	73.2	74.598	1	92.84	C
ATOM	318	CG	PHE	A	174	-68.562	72.048	75.016	1	87.09	C
ATOM	319	CD1	PHE	A	174	-67.182	72.163	75.007	1	92.12	C
ATOM	320	CE1	PHE	A	174	-66.369	71.095	75.389	1	94.23	C
ATOM	321	CZ	PHE	A	174	-66.931	69.905	75.788	1	91.15	C
ATOM	322	CE2	PHE	A	174	-68.313	69.775	75.8	1	93.95	C
ATOM	323	CD2	PHE	A	174	-69.122	70.844	75.414	1	87	C
ATOM	324	C	PHE	A	174	-70.121	71.941	72.539	1	99.66	C
ATOM	325	O	PHE	A	174	-69.337	71.205	71.977	1	107.74	O
ATOM	326	N	TYR	A	175	-71.399	71.628	72.71	1	107.98	N
ATOM	327	CA	TYR	A	175	-71.964	70.327	72.3	1	105.58	C
ATOM	328	CB	TYR	A	175	-73.118	69.935	73.262	1	104.13	C
ATOM	329	CG	TYR	A	175	-72.634	69.287	74.554	1	94.74	C
ATOM	330	CD1	TYR	A	175	-72.005	68.055	74.51	1	94.76	C
ATOM	331	CE1	TYR	A	175	-71.55	67.424	75.659	1	100.12	C
ATOM	332	CZ	TYR	A	175	-71.709	68.025	76.893	1	94.55	C
ATOM	333	OH	TYR	A	175	-71.22	67.341	77.993	1	82.6	O
ATOM	334	CE2	TYR	A	175	-72.335	69.271	76.975	1	93.42	C
ATOM	335	CD2	TYR	A	175	-72.795	69.896	75.806	1	89.8	C
ATOM	336	C	TYR	A	175	-72.414	70.313	70.821	1	98.71	C
ATOM	337	O	TYR	A	175	-72.333	69.287	70.117	1	79.46	O
ATOM	338	N	GLN	A	176	-72.875	71.471	70.363	1	102.19	N
ATOM	339	CA	GLN	A	176	-73.333	71.648	68.992	1	106.3	C
ATOM	340	CB	GLN	A	176	-74.193	72.91	68.923	1	114.86	C
ATOM	341	CG	GLN	A	176	-75.142	73.01	67.75	1	127.54	C
ATOM	342	CD	GLN	A	176	-76.243	74.036	67.994	1	143.28	C
ATOM	343	OE1	GLN	A	176	-76.032	75.053	68.674	1	134.42	O
ATOM	344	NE2	GLN	A	176	-77.429	73.774	67.441	1	155.59	N
ATOM	345	C	GLN	A	176	-72.161	71.726	68.011	1	101.5	C
ATOM	346	O	GLN	A	176	-72.369	71.65	66.804	1	105.69	O
ATOM	347	N	ASN	A	177	-70.939	71.886	68.531	1	100.72	N
ATOM	348	CA	ASN	A	177	-69.727	71.956	67.722	1	94.32	C
ATOM	349	CB	ASN	A	177	-69.146	73.381	67.762	1	94.75	C

ATOM	350	CG	ASN	A	177	-70.109	74.435	67.229	1	102.38	C
ATOM	351	OD1	ASN	A	177	-71.059	74.815	67.907	1	107.08	O
ATOM	352	ND2	ASN	A	177	-69.851	74.929	66.018	1	104.84	N
ATOM	353	C	ASN	A	177	-68.658	70.961	68.197	1	91.02	C
ATOM	354	O	ASN	A	177	-67.503	71.345	68.362	1	92.4	O
ATOM	355	N	ILE	A	178	-69.034	69.696	68.424	1	87.24	N
ATOM	356	CA	ILE	A	178	-68.078	68.664	68.903	1	82.6	C
ATOM	357	CB	ILE	A	178	-67.863	68.745	70.451	1	85.82	C
ATOM	358	CG1	ILE	A	178	-66.377	68.886	70.79	1	95.4	C
ATOM	359	CD1	ILE	A	178	-66.087	69.184	72.252	1	100.28	C
ATOM	360	CG2	ILE	A	178	-68.459	67.575	71.242	1	82.35	C
ATOM	361	C	ILE	A	178	-68.549	67.279	68.485	1	81.05	C
ATOM	362	O	ILE	A	178	-69.746	67.028	68.491	1	80.27	O
ATOM	363	N	PRO	A	179	-67.619	66.377	68.109	1	86.59	N
ATOM	364	CA	PRO	A	179	-67.997	65.019	67.731	1	87.75	C
ATOM	365	CB	PRO	A	179	-66.66	64.292	67.75	1	90.46	C
ATOM	366	CG	PRO	A	179	-65.734	65.311	67.194	1	92.32	C
ATOM	367	CD	PRO	A	179	-66.21	66.635	67.752	1	91.32	C
ATOM	368	C	PRO	A	179	-68.96	64.381	68.702	1	84.14	C
ATOM	369	O	PRO	A	179	-68.798	64.564	69.894	1	91.82	O
ATOM	370	N	PHE	A	180	-69.95	63.657	68.186	1	86.73	N
ATOM	371	CA	PHE	A	180	-70.985	63.029	69.013	1	91.04	C
ATOM	372	CB	PHE	A	180	-71.903	62.14	68.159	1	96.69	C
ATOM	373	CG	PHE	A	180	-72.798	61.228	68.96	1	96	C
ATOM	374	CD1	PHE	A	180	-73.937	61.717	69.573	1	101.54	C
ATOM	375	CE1	PHE	A	180	-74.755	60.873	70.315	1	107.93	C
ATOM	376	CZ	PHE	A	180	-74.444	59.53	70.441	1	104.84	C
ATOM	377	CE2	PHE	A	180	-73.316	59.031	69.825	1	100.51	C
ATOM	378	CD2	PHE	A	180	-72.501	59.876	69.093	1	98.34	C
ATOM	379	C	PHE	A	180	-70.389	62.223	70.16	1	92.46	C
ATOM	380	O	PHE	A	180	-70.501	62.624	71.315	1	111.59	O
ATOM	381	N	ASN	A	181	-69.724	61.117	69.858	1	85.39	N
ATOM	382	CA	ASN	A	181	-69.297	60.228	70.931	1	96.79	C
ATOM	383	CB	ASN	A	181	-69.279	58.756	70.472	1	108.01	C
ATOM	384	CG	ASN	A	181	-68.401	58.505	69.267	1	113.43	C
ATOM	385	OD1	ASN	A	181	-68.683	57.604	68.475	1	115.77	O
ATOM	386	ND2	ASN	A	181	-67.336	59.288	69.118	1	120.5	N
ATOM	387	C	ASN	A	181	-68.021	60.629	71.704	1	99.69	C
ATOM	388	O	ASN	A	181	-67.434	59.802	72.4	1	110.77	O
ATOM	389	N	ILE	A	182	-67.604	61.89	71.597	1	100.55	N
ATOM	390	CA	ILE	A	182	-66.689	62.494	72.58	1	107.96	C
ATOM	391	CB	ILE	A	182	-65.68	63.488	71.981	1	113.79	C
ATOM	392	CG1	ILE	A	182	-64.797	62.88	70.866	1	131.25	C
ATOM	393	CD1	ILE	A	182	-65.28	61.706	70.028	1	132.86	C

ATOM	394	CG2	ILE	A	182	-64.771	64.043	73.089	1	102.14	C
ATOM	395	C	ILE	A	182	-67.544	63.288	73.552	1	109.9	C
ATOM	396	O	ILE	A	182	-67.3	63.244	74.749	1	126.33	O
ATOM	397	N	ALA	A	183	-68.497	64.057	73.014	1	104.02	N
ATOM	398	CA	ALA	A	183	-69.551	64.721	73.798	1	98.62	C
ATOM	399	CB	ALA	A	183	-70.549	65.418	72.887	1	94.06	C
ATOM	400	C	ALA	A	183	-70.298	63.776	74.738	1	101.64	C
ATOM	401	O	ALA	A	183	-70.411	64.054	75.941	1	114.05	O
ATOM	402	N	GLN	A	184	-70.802	62.667	74.203	1	93.99	N
ATOM	403	CA	GLN	A	184	-71.461	61.661	75.047	1	96.37	C
ATOM	404	CB	GLN	A	184	-71.851	60.402	74.249	1	95.59	C
ATOM	405	CG	GLN	A	184	-70.922	59.205	74.375	1	96.37	C
ATOM	406	CD	GLN	A	184	-71.582	57.932	73.925	1	110.59	C
ATOM	407	OE1	GLN	A	184	-71.886	57.065	74.745	1	118.19	O
ATOM	408	NE2	GLN	A	184	-71.831	57.813	72.62	1	122.22	N
ATOM	409	C	GLN	A	184	-70.591	61.296	76.261	1	96.65	C
ATOM	410	O	GLN	A	184	-71.047	61.302	77.402	1	99.7	O
ATOM	411	N	MET	A	185	-69.319	61.027	76.008	1	100.36	N
ATOM	412	CA	MET	A	185	-68.424	60.547	77.05	1	104.59	C
ATOM	413	CB	MET	A	185	-67.065	60.192	76.467	1	108.74	C
ATOM	414	CG	MET	A	185	-67.123	58.964	75.597	1	110.84	C
ATOM	415	SD	MET	A	185	-65.531	58.637	74.865	1	111.93	S
ATOM	416	CE	MET	A	185	-65.483	56.864	75.158	1	116.89	C
ATOM	417	C	MET	A	185	-68.254	61.542	78.171	1	102.55	C
ATOM	418	O	MET	A	185	-67.957	61.15	79.29	1	109.42	O
ATOM	419	N	LEU	A	186	-68.436	62.822	77.864	1	102.75	N
ATOM	420	CA	LEU	A	186	-68.474	63.849	78.887	1	112.24	C
ATOM	421	CB	LEU	A	186	-68.244	65.238	78.289	1	106.07	C
ATOM	422	CG	LEU	A	186	-66.945	65.433	77.502	1	100.34	C
ATOM	423	CD1	LEU	A	186	-67.01	66.792	76.827	1	99.84	C
ATOM	424	CD2	LEU	A	186	-65.672	65.285	78.337	1	91.94	C
ATOM	425	C	LEU	A	186	-69.821	63.795	79.585	1	118.71	C
ATOM	426	O	LEU	A	186	-69.886	63.564	80.801	1	127.76	O
ATOM	427	N	ALA	A	187	-70.893	63.964	78.811	1	112.37	N
ATOM	428	CA	ALA	A	187	-72.24	64.089	79.375	1	110.84	C
ATOM	429	CB	ALA	A	187	-73.26	64.309	78.269	1	109.12	C
ATOM	430	C	ALA	A	187	-72.66	62.918	80.287	1	111.58	C
ATOM	431	O	ALA	A	187	-73.473	63.113	81.194	1	112.19	O
ATOM	432	N	PHE	A	188	-72.098	61.727	80.061	1	113.27	N
ATOM	433	CA	PHE	A	188	-72.328	60.57	80.94	1	116.13	C
ATOM	434	CB	PHE	A	188	-73.034	59.448	80.171	1	114.76	C
ATOM	435	CG	PHE	A	188	-74.21	59.922	79.365	1	116.31	C
ATOM	436	CD1	PHE	A	188	-75.432	60.168	79.975	1	123.64	C
ATOM	437	CE1	PHE	A	188	-76.513	60.62	79.236	1	125.19	C

ATOM	438	CZ	PHE	A	188	-76.375	60.823	77.869	1	123.43	C
ATOM	439	CE2	PHE	A	188	-75.162	60.591	77.252	1	111.03	C
ATOM	440	CD2	PHE	A	188	-74.089	60.146	77.998	1	112.28	C
ATOM	441	C	PHE	A	188	-71.047	60.053	81.595	1	118.26	C
ATOM	442	O	PHE	A	188	-70.961	58.876	81.946	1	112.27	O
ATOM	443	N	CYS	A	189	-70.068	60.939	81.786	1	130.84	N
ATOM	444	CA	CYS	A	189	-68.863	60.599	82.537	1	146.2	C
ATOM	445	CB	CYS	A	189	-67.776	61.686	82.392	1	145.74	C
ATOM	446	SG	CYS	A	189	-67.997	63.259	83.273	1	132.08	S
ATOM	447	C	CYS	A	189	-69.295	60.429	83.99	1	165.38	C
ATOM	448	O	CYS	A	189	-70.078	61.241	84.491	1	176.52	O
ATOM	449	N	ASP	A	190	-68.82	59.371	84.649	1	177.72	N
ATOM	450	CA	ASP	A	190	-69.216	59.069	86.034	1	178.85	C
ATOM	451	CB	ASP	A	190	-70.2	57.886	86.063	1	172.97	C
ATOM	452	CG	ASP	A	190	-70.997	57.801	87.367	1	163.74	C
ATOM	453	OD1	ASP	A	190	-71.253	58.846	88.007	1	152.34	O
ATOM	454	OD2	ASP	A	190	-71.384	56.676	87.747	1	160.98	O
ATOM	455	C	ASP	A	190	-67.993	58.773	86.906	1	184.02	C
ATOM	456	O	ASP	A	190	-67.081	58.049	86.489	1	187.29	O
ATOM	457	N	CYS	A	191	-68.001	59.322	88.121	1	177.95	N
ATOM	458	CA	CYS	A	191	-66.851	59.272	89.025	1	172.33	C
ATOM	459	CB	CYS	A	191	-66.567	60.668	89.566	1	172.96	C
ATOM	460	SG	CYS	A	191	-65.659	61.676	88.393	1	186.61	S
ATOM	461	C	CYS	A	191	-67.033	58.322	90.197	1	171.14	C
ATOM	462	O	CYS	A	191	-68.153	57.928	90.529	1	167.87	O
ATOM	463	N	ALA	A	192	-65.904	57.978	90.819	1	174.06	N
ATOM	464	CA	ALA	A	192	-65.864	57.202	92.061	1	166.85	C
ATOM	465	CB	ALA	A	192	-64.556	56.417	92.15	1	155.49	C
ATOM	466	C	ALA	A	192	-66.039	58.152	93.264	1	172.93	C
ATOM	467	O	ALA	A	192	-66.392	59.327	93.093	1	173.8	O
ATOM	468	N	GLN	A	193	-65.795	57.635	94.469	1	174.46	N
ATOM	469	CA	GLN	A	193	-66.028	58.362	95.724	1	168.9	C
ATOM	470	CB	GLN	A	193	-66.878	57.508	96.67	1	156.66	C
ATOM	471	CG	GLN	A	193	-68.158	56.959	96.035	1	152.29	C
ATOM	472	CD	GLN	A	193	-67.958	55.674	95.218	1	146.15	C
ATOM	473	OE1	GLN	A	193	-66.862	55.392	94.726	1	139.15	O
ATOM	474	NE2	GLN	A	193	-69.027	54.901	95.06	1	137.86	N
ATOM	475	C	GLN	A	193	-64.709	58.788	96.394	1	181.53	C
ATOM	476	O	GLN	A	193	-64.624	59.899	96.929	1	184.85	O
ATOM	477	N	SER	A	194	-63.694	57.913	96.361	1	186.4	N
ATOM	478	CA	SER	A	194	-62.319	58.254	96.794	1	178.56	C
ATOM	479	CB	SER	A	194	-61.45	56.987	96.927	1	167.74	C
ATOM	480	OG	SER	A	194	-61.338	56.283	95.7	1	154.07	O
ATOM	481	C	SER	A	194	-61.619	59.272	95.873	1	174.63	C

ATOM	482	O	SER	A	194	-60.909	60.161	96.353	1	159.53	O
ATOM	483	N	ASP	A	195	-61.823	59.131	94.561	1	173.28	N
ATOM	484	CA	ASP	A	195	-61.233	60.022	93.554	1	173.08	C
ATOM	485	CB	ASP	A	195	-61.435	59.41	92.15	1	170.75	C
ATOM	486	CG	ASP	A	195	-60.631	60.111	91.052	1	170	C
ATOM	487	OD1	ASP	A	195	-59.932	61.117	91.314	1	161.99	O
ATOM	488	OD2	ASP	A	195	-60.738	59.658	89.89	1	166.8	O
ATOM	489	C	ASP	A	195	-61.827	61.444	93.656	1	175.68	C
ATOM	490	O	ASP	A	195	-62.893	61.729	93.104	1	169.03	O
ATOM	491	N	ILE	A	196	-61.129	62.314	94.391	1	177.68	N
ATOM	492	CA	ILE	A	196	-61.515	63.73	94.549	1	173.89	C
ATOM	493	CB	ILE	A	196	-60.98	64.349	95.871	1	170.82	C
ATOM	494	CG1	ILE	A	196	-61.266	63.43	97.075	1	171.91	C
ATOM	495	CD1	ILE	A	196	-62.682	62.888	97.146	1	171.75	C
ATOM	496	CG2	ILE	A	196	-61.584	65.736	96.109	1	167.25	C
ATOM	497	C	ILE	A	196	-61.116	64.622	93.358	1	177.95	C
ATOM	498	O	ILE	A	196	-61.86	65.553	93.033	1	179.18	O
ATOM	499	N	PRO	A	197	-59.944	64.369	92.72	1	177.99	N
ATOM	500	CA	PRO	A	197	-59.648	65.055	91.447	1	169.62	C
ATOM	501	CB	PRO	A	197	-58.388	64.339	90.959	1	166.11	C
ATOM	502	CG	PRO	A	197	-57.685	63.965	92.213	1	169.53	C
ATOM	503	CD	PRO	A	197	-58.755	63.647	93.221	1	173.4	C
ATOM	504	C	PRO	A	197	-60.769	64.932	90.41	1	161.62	C
ATOM	505	O	PRO	A	197	-61.119	65.921	89.756	1	134.71	O
ATOM	506	N	CYS	A	198	-61.304	63.714	90.29	1	161.99	N
ATOM	507	CA	CYS	A	198	-62.504	63.41	89.501	1	163.57	C
ATOM	508	CB	CYS	A	198	-63.087	62.044	89.913	1	168.86	C
ATOM	509	SG	CYS	A	198	-63.739	61.019	88.573	1	190.81	S
ATOM	510	C	CYS	A	198	-63.576	64.482	89.688	1	158.63	C
ATOM	511	O	CYS	A	198	-64.023	65.098	88.719	1	152.6	O
ATOM	512	N	GLN	A	199	-63.958	64.704	90.946	1	154.3	N
ATOM	513	CA	GLN	A	199	-65.039	65.636	91.285	1	151.39	C
ATOM	514	CB	GLN	A	199	-65.329	65.658	92.804	1	150.88	C
ATOM	515	CG	GLN	A	199	-66.42	64.694	93.274	1	145.49	C
ATOM	516	CD	GLN	A	199	-65.941	63.263	93.471	1	150.84	C
ATOM	517	OE1	GLN	A	199	-66.425	62.342	92.808	1	150.45	O
ATOM	518	NE2	GLN	A	199	-65	63.066	94.398	1	150.75	N
ATOM	519	C	GLN	A	199	-64.785	67.054	90.772	1	149.01	C
ATOM	520	O	GLN	A	199	-65.726	67.72	90.354	1	139.38	O
ATOM	521	N	GLN	A	200	-63.526	67.497	90.785	1	150.24	N
ATOM	522	CA	GLN	A	200	-63.166	68.853	90.339	1	155.89	C
ATOM	523	CB	GLN	A	200	-61.744	69.197	90.77	1	156.23	C
ATOM	524	CG	GLN	A	200	-61.586	69.31	92.271	1	162.43	C
ATOM	525	CD	GLN	A	200	-60.138	69.416	92.692	1	176.14	C

ATOM	526	OE1	GLN	A	200	-59.301	68.601	92.294	1	179.21	O
ATOM	527	NE2	GLN	A	200	-59.831	70.419	93.51	1	181.87	N
ATOM	528	C	GLN	A	200	-63.302	69.036	88.826	1	152.7	C
ATOM	529	O	GLN	A	200	-63.878	70.027	88.362	1	136.51	O
ATOM	530	N	SER	A	201	-62.761	68.085	88.065	1	147.06	N
ATOM	531	CA	SER	A	201	-62.979	68.044	86.62	1	134.35	C
ATOM	532	CB	SER	A	201	-62.186	66.907	85.956	1	134.59	C
ATOM	533	OG	SER	A	201	-62.28	65.693	86.687	1	133	O
ATOM	534	C	SER	A	201	-64.478	67.901	86.386	1	131.62	C
ATOM	535	O	SER	A	201	-65.078	68.762	85.743	1	121.16	O
ATOM	536	N	LYS	A	202	-65.084	66.867	86.981	1	132.53	N
ATOM	537	CA	LYS	A	202	-66.548	66.667	86.954	1	129.53	C
ATOM	538	CB	LYS	A	202	-66.972	65.555	87.924	1	122.2	C
ATOM	539	CG	LYS	A	202	-68.448	65.182	87.85	1	129.31	C
ATOM	540	CD	LYS	A	202	-68.777	63.928	88.656	1	139.16	C
ATOM	541	CE	LYS	A	202	-68.897	64.222	90.147	1	152.29	C
ATOM	542	NZ	LYS	A	202	-68.931	63	91.006	1	154.31	N
ATOM	543	C	LYS	A	202	-67.324	67.956	87.263	1	135.85	C
ATOM	544	O	LYS	A	202	-68.335	68.239	86.614	1	127.55	O
ATOM	545	N	GLU	A	203	-66.829	68.724	88.238	1	140.8	N
ATOM	546	CA	GLU	A	203	-67.396	70.026	88.617	1	148.54	C
ATOM	547	CB	GLU	A	203	-66.618	70.636	89.791	1	159.69	C
ATOM	548	CG	GLU	A	203	-67.396	71.622	90.642	1	176.36	C
ATOM	549	CD	GLU	A	203	-66.606	72.069	91.864	1	185.66	C
ATOM	550	OE1	GLU	A	203	-67.207	72.186	92.955	1	185.04	O
ATOM	551	OE2	GLU	A	203	-65.381	72.295	91.737	1	188.11	O
ATOM	552	C	GLU	A	203	-67.388	71.011	87.449	1	150.45	C
ATOM	553	O	GLU	A	203	-68.322	71.809	87.289	1	152.99	O
ATOM	554	N	ALA	A	204	-66.312	70.958	86.663	1	149.24	N
ATOM	555	CA	ALA	A	204	-66.141	71.79	85.465	1	153.5	C
ATOM	556	CB	ALA	A	204	-64.657	72.027	85.204	1	159.32	C
ATOM	557	C	ALA	A	204	-66.807	71.217	84.208	1	144.04	C
ATOM	558	O	ALA	A	204	-67.272	71.974	83.352	1	137.48	O
ATOM	559	N	LEU	A	205	-66.85	69.891	84.094	1	135.85	N
ATOM	560	CA	LEU	A	205	-67.384	69.232	82.895	1	137.06	C
ATOM	561	CB	LEU	A	205	-67.022	67.743	82.894	1	140.41	C
ATOM	562	CG	LEU	A	205	-65.522	67.456	82.74	1	140.03	C
ATOM	563	CD1	LEU	A	205	-65.166	66.073	83.241	1	136.86	C
ATOM	564	CD2	LEU	A	205	-65.059	67.626	81.302	1	147.77	C
ATOM	565	C	LEU	A	205	-68.897	69.414	82.729	1	136.51	C
ATOM	566	O	LEU	A	205	-69.363	69.75	81.64	1	132.62	O
ATOM	567	N	HIS	A	206	-69.651	69.192	83.805	1	136.55	N
ATOM	568	CA	HIS	A	206	-71.101	69.417	83.804	1	133.59	C
ATOM	569	CB	HIS	A	206	-71.787	68.467	84.787	1	135.25	C

ATOM	570	CG	HIS	A	206	-71.901	67.061	84.294	1	141.11	C
ATOM	571	ND1	HIS	A	206	-70.87	66.15	84.39	1	148.24	N
ATOM	572	CE1	HIS	A	206	-71.262	64.992	83.889	1	151.98	C
ATOM	573	NE2	HIS	A	206	-72.512	65.116	83.48	1	157.03	N
ATOM	574	CD2	HIS	A	206	-72.935	66.401	83.722	1	148.94	C
ATOM	575	C	HIS	A	206	-71.515	70.865	84.122	1	138.33	C
ATOM	576	O	HIS	A	206	-72.694	71.182	83.997	1	133.06	O
ATOM	577	N	SER	A	207	-70.563	71.729	84.506	1	145.8	N
ATOM	578	CA	SER	A	207	-70.826	73.124	84.933	1	152.64	C
ATOM	579	CB	SER	A	207	-71.374	74.014	83.784	1	154.01	C
ATOM	580	OG	SER	A	207	-70.349	74.755	83.147	1	152.22	O
ATOM	581	C	SER	A	207	-71.743	73.152	86.158	1	165.81	C
ATOM	582	O	SER	A	207	-72.858	73.684	86.114	1	177.42	O
ATOM	583	N	LYS	A	208	-71.255	72.569	87.252	1	170.55	N
ATOM	584	CA	LYS	A	208	-71.991	72.567	88.527	1	166.39	C
ATOM	585	CB	LYS	A	208	-71.335	71.635	89.555	1	169.31	C
ATOM	586	CG	LYS	A	208	-71.17	70.176	89.136	1	163.56	C
ATOM	587	CD	LYS	A	208	-72.409	69.315	89.336	1	161.27	C
ATOM	588	CE	LYS	A	208	-72.025	67.837	89.307	1	171.75	C
ATOM	589	NZ	LYS	A	208	-73.158	66.888	89.499	1	174.62	N
ATOM	590	C	LYS	A	208	-72.052	73.992	89.095	1	155.79	C
ATOM	591	O	LYS	A	208	-73.059	74.38	89.693	1	115.03	O
ATOM	592	N	THR	A	209	-70.966	74.746	88.879	1	165.11	N
ATOM	593	CA	THR	A	209	-70.812	76.143	89.327	1	171.24	C
ATOM	594	CB	THR	A	209	-69.48	76.771	88.8	1	171.41	C
ATOM	595	OG1	THR	A	209	-69.313	76.49	87.404	1	170.17	O
ATOM	596	CG2	THR	A	209	-68.269	76.226	89.549	1	168	C
ATOM	597	C	THR	A	209	-71.973	77.093	88.968	1	166.67	C
ATOM	598	O	THR	A	209	-72.395	77.888	89.812	1	155.54	O
ATOM	599	N	CYS	A	210	-72.487	77.004	87.739	1	168.99	N
ATOM	600	CA	CYS	A	210	-73.381	78.038	87.198	1	172.26	C
ATOM	601	CB	CYS	A	210	-72.807	78.609	85.904	1	187.4	C
ATOM	602	SG	CYS	A	210	-73.86	79.892	85.18	1	212.89	S
ATOM	603	C	CYS	A	210	-74.826	77.624	86.933	1	161.67	C
ATOM	604	O	CYS	A	210	-75.741	78.304	87.402	1	170.74	O
ATOM	605	N	ALA	A	211	-75.037	76.562	86.153	1	156.2	N
ATOM	606	CA	ALA	A	211	-76.389	76.218	85.67	1	155.89	C
ATOM	607	CB	ALA	A	211	-76.633	76.848	84.299	1	153.21	C
ATOM	608	C	ALA	A	211	-76.7	74.715	85.643	1	152.54	C
ATOM	609	O	ALA	A	211	-77.233	74.208	84.654	1	144.6	O
ATOM	610	N	VAL	A	212	-76.372	74.022	86.737	1	168.61	N
ATOM	611	CA	VAL	A	212	-76.872	72.655	87.009	1	190.45	C
ATOM	612	CB	VAL	A	212	-75.798	71.565	86.765	1	200.66	C
ATOM	613	CG1	VAL	A	212	-76.347	70.168	87.08	1	200.79	C

ATOM	614	CG2	VAL	A	212	-75.313	71.63	85.325	1	196.17	C
ATOM	615	C	VAL	A	212	-77.443	72.541	88.435	1	190.41	C
ATOM	616	O	VAL	A	212	-78.628	72.243	88.594	1	183.39	O
ATOM	617	N	ASN	A	213	-76.607	72.765	89.455	1	188.76	N
ATOM	618	CA	ASN	A	213	-77.056	72.747	90.861	1	186.22	C
ATOM	619	CB	ASN	A	213	-75.866	72.708	91.827	1	172.54	C
ATOM	620	CG	ASN	A	213	-75.185	71.363	91.874	1	174.11	C
ATOM	621	OD1	ASN	A	213	-73.967	71.292	92.001	1	189.03	O
ATOM	622	ND2	ASN	A	213	-75.963	70.287	91.795	1	171.9	N
ATOM	623	C	ASN	A	213	-77.921	73.947	91.253	1	200.81	C
ATOM	624	O	ASN	A	213	-77.616	75.086	90.89	1	205.21	O
ATOM	625	N	MET	A	214	-78.986	73.678	92.011	1	202.76	N
ATOM	626	CA	MET	A	214	-79.764	74.727	92.667	1	194.31	C
ATOM	627	CB	MET	A	214	-80.911	75.223	91.77	1	183.62	C
ATOM	628	CG	MET	A	214	-80.489	76.319	90.797	1	181.85	C
ATOM	629	SD	MET	A	214	-81.833	77.383	90.248	1	182.11	S
ATOM	630	CE	MET	A	214	-80.922	78.812	89.656	1	175.81	C
ATOM	631	C	MET	A	214	-80.288	74.249	94.024	1	196.42	C
ATOM	632	O	MET	A	214	-80.8	73.132	94.151	1	196.7	O
ATOM	633	N	VAL	A	215	-80.097	75.101	95.032	1	192.87	N
ATOM	634	CA	VAL	A	215	-80.634	74.923	96.381	1	176.91	C
ATOM	635	CB	VAL	A	215	-79.557	74.407	97.373	1	186.23	C
ATOM	636	CG1	VAL	A	215	-80.193	74.017	98.706	1	189.09	C
ATOM	637	CG2	VAL	A	215	-78.789	73.224	96.785	1	181.45	C
ATOM	638	C	VAL	A	215	-81.134	76.329	96.782	1	156.69	C
ATOM	639	O	VAL	A	215	-80.311	77.202	97.063	1	154.11	O
ATOM	640	N	PRO	A	216	-82.446	76.579	96.801	1	137.75	N
ATOM	641	CA	PRO	A	216	-83.496	75.573	96.702	1	139.33	C
ATOM	642	CB	PRO	A	216	-84.753	76.348	97.156	1	142.07	C
ATOM	643	CG	PRO	A	216	-84.39	77.813	97.115	1	136.28	C
ATOM	644	CD	PRO	A	216	-82.992	77.927	96.571	1	132.9	C
ATOM	645	C	PRO	A	216	-83.699	74.997	95.28	1	140.74	C
ATOM	646	O	PRO	A	216	-83.619	75.749	94.3	1	127.86	O
ATOM	647	N	PRO	A	217	-83.957	73.674	95.166	1	148.02	N
ATOM	648	CA	PRO	A	217	-84.241	73.095	93.844	1	153.97	C
ATOM	649	CB	PRO	A	217	-83.905	71.599	94.034	1	160.56	C
ATOM	650	CG	PRO	A	217	-83.528	71.407	95.473	1	154.68	C
ATOM	651	CD	PRO	A	217	-83.951	72.634	96.215	1	151.29	C
ATOM	652	C	PRO	A	217	-85.716	73.258	93.416	1	152.58	C
ATOM	653	O	PRO	A	217	-86.598	72.937	94.216	1	168.66	O
ATOM	654	N	PRO	A	218	-85.99	73.743	92.171	1	142.29	N
ATOM	655	CA	PRO	A	218	-87.38	73.796	91.654	1	130	C
ATOM	656	CB	PRO	A	218	-87.21	74.322	90.227	1	120.82	C
ATOM	657	CG	PRO	A	218	-85.96	75.122	90.267	1	123.88	C

ATOM	658	CD	PRO	A	218	-85.063	74.489	91.294	1	133.43	C
ATOM	659	C	PRO	A	218	-88.126	72.452	91.626	1	129.18	C
ATOM	660	O	PRO	A	218	-87.515	71.383	91.763	1	113.83	O
ATOM	661	N	THR	A	219	-89.446	72.523	91.467	1	135.19	N
ATOM	662	CA	THR	A	219	-90.263	71.317	91.346	1	136.33	C
ATOM	663	CB	THR	A	219	-91.743	71.52	91.773	1	132.62	C
ATOM	664	OG1	THR	A	219	-92.496	72.12	90.716	1	126.5	O
ATOM	665	CG2	THR	A	219	-91.858	72.385	93.033	1	133.95	C
ATOM	666	C	THR	A	219	-90.15	70.919	89.883	1	145.09	C
ATOM	667	O	THR	A	219	-90.515	71.704	89.007	1	137.23	O
ATOM	668	N	CYS	A	220	-89.64	69.716	89.611	1	147.51	N
ATOM	669	CA	CYS	A	220	-89.388	69.267	88.227	1	132.91	C
ATOM	670	CB	CYS	A	220	-89.096	67.769	88.188	1	137.33	C
ATOM	671	SG	CYS	A	220	-87.532	67.352	88.975	1	151.82	S
ATOM	672	C	CYS	A	220	-90.527	69.576	87.29	1	115.77	C
ATOM	673	O	CYS	A	220	-90.306	69.913	86.134	1	113.95	O
ATOM	674	N	LEU	A	221	-91.739	69.481	87.815	1	105.53	N
ATOM	675	CA	LEU	A	221	-92.93	69.793	87.054	1	113.93	C
ATOM	676	CB	LEU	A	221	-94.214	69.37	87.783	1	120.89	C
ATOM	677	CG	LEU	A	221	-94.204	68.249	88.84	1	122.71	C
ATOM	678	CD1	LEU	A	221	-94.247	68.876	90.233	1	127.5	C
ATOM	679	CD2	LEU	A	221	-95.351	67.268	88.638	1	118.7	C
ATOM	680	C	LEU	A	221	-92.992	71.279	86.712	1	120.41	C
ATOM	681	O	LEU	A	221	-93.507	71.636	85.652	1	135.4	O
ATOM	682	N	SER	A	222	-92.497	72.137	87.609	1	117.22	N
ATOM	683	CA	SER	A	222	-92.382	73.572	87.326	1	124.84	C
ATOM	684	CB	SER	A	222	-91.913	74.353	88.557	1	133.76	C
ATOM	685	OG	SER	A	222	-92.092	75.745	88.374	1	156.95	O
ATOM	686	C	SER	A	222	-91.431	73.821	86.16	1	127.63	C
ATOM	687	O	SER	A	222	-91.765	74.574	85.236	1	128.26	O
ATOM	688	N	VAL	A	223	-90.262	73.174	86.21	1	126.26	N
ATOM	689	CA	VAL	A	223	-89.274	73.205	85.117	1	118.07	C
ATOM	690	CB	VAL	A	223	-88.098	72.229	85.388	1	132.85	C
ATOM	691	CG1	VAL	A	223	-87.283	71.944	84.124	1	140.5	C
ATOM	692	CG2	VAL	A	223	-87.205	72.772	86.494	1	141.81	C
ATOM	693	C	VAL	A	223	-89.95	72.837	83.803	1	105.83	C
ATOM	694	O	VAL	A	223	-90.084	73.681	82.912	1	98.45	O
ATOM	695	N	ILE	A	224	-90.415	71.59	83.724	1	94.79	N
ATOM	696	CA	ILE	A	224	-91.038	71.054	82.521	1	92.26	C
ATOM	697	CB	ILE	A	224	-91.524	69.596	82.747	1	91.27	C
ATOM	698	CG1	ILE	A	224	-90.298	68.669	82.756	1	97.65	C
ATOM	699	CD1	ILE	A	224	-90.524	67.268	83.282	1	98.06	C
ATOM	700	CG2	ILE	A	224	-92.501	69.14	81.663	1	93.15	C
ATOM	701	C	ILE	A	224	-92.123	71.996	81.962	1	95.16	C

ATOM	702	O	ILE	A	224	-92.096	72.307	80.776	1	100.87	O
ATOM	703	N	ARG	A	225	-93.029	72.486	82.801	1	98.31	N
ATOM	704	CA	ARG	A	225	-94.073	73.41	82.33	1	110.02	C
ATOM	705	CB	ARG	A	225	-95.121	73.658	83.403	1	121.3	C
ATOM	706	CG	ARG	A	225	-95.942	72.432	83.733	1	132.66	C
ATOM	707	CD	ARG	A	225	-96.5	72.487	85.145	1	137.77	C
ATOM	708	NE	ARG	A	225	-96.776	71.144	85.647	1	138.36	N
ATOM	709	CZ	ARG	A	225	-97.178	70.866	86.884	1	138.59	C
ATOM	710	NH1	ARG	A	225	-97.402	69.599	87.226	1	136.83	N
ATOM	711	NH2	ARG	A	225	-97.365	71.837	87.779	1	142.7	N
ATOM	712	C	ARG	A	225	-93.536	74.76	81.868	1	118.02	C
ATOM	713	O	ARG	A	225	-94.194	75.416	81.064	1	120.73	O
ATOM	714	N	SER	A	226	-92.381	75.186	82.391	1	119.5	N
ATOM	715	CA	SER	A	226	-91.719	76.413	81.921	1	122.36	C
ATOM	716	CB	SER	A	226	-90.744	76.974	82.957	1	127.67	C
ATOM	717	OG	SER	A	226	-89.461	76.388	82.825	1	135.55	O
ATOM	718	C	SER	A	226	-90.977	76.172	80.617	1	122.54	C
ATOM	719	O	SER	A	226	-90.888	77.09	79.794	1	133.65	O
ATOM	720	N	CYS	A	227	-90.416	74.964	80.455	1	114.42	N
ATOM	721	CA	CYS	A	227	-89.84	74.533	79.171	1	113.75	C
ATOM	722	CB	CYS	A	227	-88.959	73.28	79.312	1	119.78	C
ATOM	723	SG	CYS	A	227	-88.03	72.792	77.813	1	141.62	S
ATOM	724	C	CYS	A	227	-90.941	74.274	78.148	1	107.92	C
ATOM	725	O	CYS	A	227	-90.754	74.502	76.961	1	120.29	O
ATOM	726	N	GLN	A	228	-92.087	73.792	78.603	1	104.23	N
ATOM	727	CA	GLN	A	228	-93.251	73.683	77.734	1	105.63	C
ATOM	728	CB	GLN	A	228	-94.282	72.707	78.328	1	110.37	C
ATOM	729	CG	GLN	A	228	-93.803	71.255	78.313	1	110.88	C
ATOM	730	CD	GLN	A	228	-94.912	70.25	78.558	1	117.14	C
ATOM	731	OE1	GLN	A	228	-95.415	69.63	77.621	1	123.99	O
ATOM	732	NE2	GLN	A	228	-95.294	70.077	79.819	1	119.27	N
ATOM	733	C	GLN	A	228	-93.853	75.067	77.393	1	104.68	C
ATOM	734	O	GLN	A	228	-94.365	75.245	76.296	1	98.47	O
ATOM	735	N	ASN	A	229	-93.779	76.037	78.31	1	119.22	N
ATOM	736	CA	ASN	A	229	-94.18	77.433	78.02	1	134.23	C
ATOM	737	CB	ASN	A	229	-94.101	78.328	79.277	1	150.11	C
ATOM	738	CG	ASN	A	229	-95.32	78.199	80.187	1	166.51	C
ATOM	739	OD1	ASN	A	229	-96.135	77.287	80.038	1	181.78	O
ATOM	740	ND2	ASN	A	229	-95.444	79.118	81.148	1	170.83	N
ATOM	741	C	ASN	A	229	-93.327	78.061	76.928	1	139.14	C
ATOM	742	O	ASN	A	229	-93.835	78.826	76.103	1	131.14	O
ATOM	743	N	ASP	A	230	-92.032	77.732	76.952	1	152.33	N
ATOM	744	CA	ASP	A	230	-91.03	78.231	75.992	1	160.69	C
ATOM	745	CB	ASP	A	230	-89.608	77.855	76.475	1	164.74	C

ATOM	746	CG	ASP	A	230	-88.507	78.169	75.454	1	164.09	C
ATOM	747	OD1	ASP	A	230	-88.725	78.954	74.5	1	170.14	O
ATOM	748	OD2	ASP	A	230	-87.402	77.609	75.618	1	153.93	O
ATOM	749	C	ASP	A	230	-91.267	77.715	74.567	1	154.2	C
ATOM	750	O	ASP	A	230	-91.233	76.507	74.315	1	139.81	O
ATOM	751	N	GLU	A	231	-91.438	78.662	73.642	1	158.71	N
ATOM	752	CA	GLU	A	231	-91.723	78.383	72.229	1	165.9	C
ATOM	753	CB	GLU	A	231	-91.515	79.654	71.393	1	170.64	C
ATOM	754	CG	GLU	A	231	-92.022	79.561	69.956	1	182.71	C
ATOM	755	CD	GLU	A	231	-90.945	79.88	68.933	1	200.01	C
ATOM	756	OE1	GLU	A	231	-90.295	80.94	69.062	1	209.62	O
ATOM	757	OE2	GLU	A	231	-90.747	79.069	68	1	207.51	O
ATOM	758	C	GLU	A	231	-90.877	77.257	71.625	1	160.93	C
ATOM	759	O	GLU	A	231	-91.39	76.472	70.824	1	164.75	O
ATOM	760	N	LEU	A	232	-89.599	77.183	72.009	1	147.7	N
ATOM	761	CA	LEU	A	232	-88.645	76.308	71.34	1	137.59	C
ATOM	762	CB	LEU	A	232	-87.37	77.089	70.973	1	135.65	C
ATOM	763	CG	LEU	A	232	-87.023	77.026	69.478	1	142.08	C
ATOM	764	CD1	LEU	A	232	-85.907	78.002	69.131	1	143.62	C
ATOM	765	CD2	LEU	A	232	-86.654	75.612	69.046	1	147.17	C
ATOM	766	C	LEU	A	232	-88.32	75.023	72.11	1	132.09	C
ATOM	767	O	LEU	A	232	-88.515	73.946	71.563	1	137.41	O
ATOM	768	N	CYS	A	233	-87.844	75.104	73.356	1	128.21	N
ATOM	769	CA	CYS	A	233	-87.424	73.877	74.075	1	125.19	C
ATOM	770	CB	CYS	A	233	-86.61	74.16	75.358	1	128.55	C
ATOM	771	SG	CYS	A	233	-87.51	74.559	76.886	1	161.56	S
ATOM	772	C	CYS	A	233	-88.565	72.889	74.362	1	120.09	C
ATOM	773	O	CYS	A	233	-88.302	71.748	74.753	1	114.94	O
ATOM	774	N	ARG	A	234	-89.818	73.301	74.169	1	112.43	N
ATOM	775	CA	ARG	A	234	-90.883	72.316	74.095	1	116.73	C
ATOM	776	CB	ARG	A	234	-92.261	72.927	73.849	1	119.74	C
ATOM	777	CG	ARG	A	234	-92.44	73.784	72.606	1	123.75	C
ATOM	778	CD	ARG	A	234	-93.883	74.29	72.473	1	124.68	C
ATOM	779	NE	ARG	A	234	-94.737	73.309	71.798	1	117.53	N
ATOM	780	CZ	ARG	A	234	-95.423	72.323	72.384	1	119.83	C
ATOM	781	NH1	ARG	A	234	-96.14	71.492	71.623	1	119.71	N
ATOM	782	NH2	ARG	A	234	-95.414	72.147	73.709	1	117.28	N
ATOM	783	C	ARG	A	234	-90.546	71.28	73.028	1	125.68	C
ATOM	784	O	ARG	A	234	-90.72	70.091	73.282	1	132.75	O
ATOM	785	N	ARG	A	235	-90.031	71.727	71.87	1	127.58	N
ATOM	786	CA	ARG	A	235	-89.504	70.815	70.833	1	121.87	C
ATOM	787	CB	ARG	A	235	-88.882	71.542	69.624	1	134.74	C
ATOM	788	CG	ARG	A	235	-89.783	72.468	68.817	1	146.57	C
ATOM	789	CD	ARG	A	235	-89.213	72.727	67.417	1	154.65	C

ATOM	790	NE	ARG	A	235	-89.068	74.155	67.125	1	163.1	N
ATOM	791	CZ	ARG	A	235	-90.069	75.003	66.869	1	171.43	C
ATOM	792	NH1	ARG	A	235	-89.789	76.282	66.627	1	176.45	N
ATOM	793	NH2	ARG	A	235	-91.345	74.602	66.852	1	167.92	N
ATOM	794	C	ARG	A	235	-88.42	69.923	71.403	1	106.13	C
ATOM	795	O	ARG	A	235	-88.465	68.707	71.228	1	104.65	O
ATOM	796	N	HIS	A	236	-87.445	70.541	72.065	1	93.32	N
ATOM	797	CA	HIS	A	236	-86.287	69.817	72.582	1	94.65	C
ATOM	798	CB	HIS	A	236	-85.32	70.736	73.32	1	104.51	C
ATOM	799	CG	HIS	A	236	-84.435	71.538	72.417	1	117.99	C
ATOM	800	ND1	HIS	A	236	-84.904	72.215	71.308	1	123.13	N
ATOM	801	CE1	HIS	A	236	-83.897	72.833	70.718	1	128.42	C
ATOM	802	NE2	HIS	A	236	-82.796	72.594	71.412	1	129.62	N
ATOM	803	CD2	HIS	A	236	-83.106	71.787	72.479	1	117.58	C
ATOM	804	C	HIS	A	236	-86.72	68.729	73.516	1	87.67	C
ATOM	805	O	HIS	A	236	-86.221	67.612	73.421	1	82.9	O
ATOM	806	N	TYR	A	237	-87.653	69.065	74.409	1	91.82	N
ATOM	807	CA	TYR	A	237	-88.22	68.096	75.347	1	93.48	C
ATOM	808	CB	TYR	A	237	-89.049	68.756	76.461	1	96.46	C
ATOM	809	CG	TYR	A	237	-89.623	67.683	77.352	1	96.29	C
ATOM	810	CD1	TYR	A	237	-88.8	66.998	78.255	1	95.13	C
ATOM	811	CE1	TYR	A	237	-89.295	65.978	79.045	1	92.02	C
ATOM	812	CZ	TYR	A	237	-90.625	65.611	78.915	1	92.13	C
ATOM	813	OH	TYR	A	237	-91.108	64.6	79.696	1	94.56	O
ATOM	814	CE2	TYR	A	237	-91.461	66.254	78.009	1	88.91	C
ATOM	815	CD2	TYR	A	237	-90.957	67.278	77.227	1	90.83	C
ATOM	816	C	TYR	A	237	-89.094	67.057	74.647	1	88.87	C
ATOM	817	O	TYR	A	237	-88.871	65.856	74.819	1	80.71	O
ATOM	818	N	ARG	A	238	-90.106	67.521	73.904	1	86.36	N
ATOM	819	CA	ARG	A	238	-90.911	66.634	73.056	1	89.4	C
ATOM	820	CB	ARG	A	238	-91.728	67.413	72.001	1	96.37	C
ATOM	821	CG	ARG	A	238	-93.109	67.897	72.463	1	106.3	C
ATOM	822	CD	ARG	A	238	-93.876	68.783	71.456	1	116.03	C
ATOM	823	NE	ARG	A	238	-93.906	68.253	70.079	1	129.51	N
ATOM	824	CZ	ARG	A	238	-93.291	68.775	68.999	1	146.25	C
ATOM	825	NH1	ARG	A	238	-93.405	68.16	67.822	1	150.15	N
ATOM	826	NH2	ARG	A	238	-92.564	69.895	69.052	1	156.09	N
ATOM	827	C	ARG	A	238	-89.99	65.603	72.383	1	90.69	C
ATOM	828	O	ARG	A	238	-90.252	64.402	72.435	1	89.62	O
ATOM	829	N	THR	A	239	-88.887	66.073	71.806	1	91.31	N
ATOM	830	CA	THR	A	239	-87.921	65.187	71.168	1	90.33	C
ATOM	831	CB	THR	A	239	-86.804	65.973	70.445	1	90.76	C
ATOM	832	OG1	THR	A	239	-87.398	66.894	69.507	1	85.52	O
ATOM	833	CG2	THR	A	239	-85.845	65.007	69.714	1	88.57	C

ATOM	834	C	THR	A	239	-87.344	64.216	72.188	1	89.16	C
ATOM	835	O	THR	A	239	-87.585	63.021	72.091	1	89.97	O
ATOM	836	N	PHE	A	240	-86.632	64.743	73.18	1	97.6	N
ATOM	837	CA	PHE	A	240	-85.998	63.934	74.247	1	99.8	C
ATOM	838	CB	PHE	A	240	-85.565	64.847	75.406	1	100.29	C
ATOM	839	CG	PHE	A	240	-85.057	64.108	76.608	1	95.75	C
ATOM	840	CD1	PHE	A	240	-83.974	63.245	76.497	1	98.5	C
ATOM	841	CE1	PHE	A	240	-83.492	62.562	77.609	1	100.69	C
ATOM	842	CZ	PHE	A	240	-84.095	62.73	78.847	1	96.23	C
ATOM	843	CE2	PHE	A	240	-85.183	63.582	78.967	1	97.65	C
ATOM	844	CD2	PHE	A	240	-85.658	64.268	77.851	1	95.62	C
ATOM	845	C	PHE	A	240	-86.876	62.802	74.797	1	94.65	C
ATOM	846	O	PHE	A	240	-86.41	61.661	74.901	1	81.34	O
ATOM	847	N	GLN	A	241	-88.126	63.135	75.144	1	97.24	N
ATOM	848	CA	GLN	A	241	-89.094	62.158	75.695	1	102.33	C
ATOM	849	CB	GLN	A	241	-90.395	62.827	76.188	1	103.34	C
ATOM	850	CG	GLN	A	241	-91.254	61.947	77.104	1	101.68	C
ATOM	851	CD	GLN	A	241	-92.722	62.361	77.138	1	102.94	C
ATOM	852	OE1	GLN	A	241	-93.069	63.43	77.639	1	103.43	O
ATOM	853	NE2	GLN	A	241	-93.592	61.509	76.612	1	103.66	N
ATOM	854	C	GLN	A	241	-89.439	61.111	74.656	1	96.76	C
ATOM	855	O	GLN	A	241	-89.48	59.922	74.962	1	94.48	O
ATOM	856	N	SER	A	242	-89.674	61.581	73.432	1	89.94	N
ATOM	857	CA	SER	A	242	-89.969	60.717	72.288	1	83.54	C
ATOM	858	CB	SER	A	242	-90.248	61.575	71.055	1	82.09	C
ATOM	859	OG	SER	A	242	-90.922	60.84	70.069	1	86.52	O
ATOM	860	C	SER	A	242	-88.861	59.69	71.981	1	78.09	C
ATOM	861	O	SER	A	242	-89.149	58.567	71.564	1	71.27	O
ATOM	862	N	LYS	A	243	-87.61	60.08	72.224	1	78.01	N
ATOM	863	CA	LYS	A	243	-86.445	59.261	71.917	1	81.75	C
ATOM	864	CB	LYS	A	243	-85.227	60.157	71.693	1	88.47	C
ATOM	865	CG	LYS	A	243	-85.393	61.139	70.531	1	99.87	C
ATOM	866	CD	LYS	A	243	-84.79	60.638	69.216	1	108.22	C
ATOM	867	CE	LYS	A	243	-85.753	60.795	68.047	1	112.09	C
ATOM	868	NZ	LYS	A	243	-86.85	59.783	68.106	1	111.09	N
ATOM	869	C	LYS	A	243	-86.135	58.246	73.012	1	84.49	C
ATOM	870	O	LYS	A	243	-86.097	57.044	72.758	1	84.42	O
ATOM	871	N	CYS	A	244	-85.906	58.726	74.229	1	93	N
ATOM	872	CA	CYS	A	244	-85.459	57.859	75.33	1	92.93	C
ATOM	873	CB	CYS	A	244	-84.688	58.669	76.361	1	94.1	C
ATOM	874	SG	CYS	A	244	-83.341	59.641	75.657	1	102.63	S
ATOM	875	C	CYS	A	244	-86.62	57.157	76.002	1	95.55	C
ATOM	876	O	CYS	A	244	-86.499	55.987	76.368	1	99.38	O
ATOM	877	N	TRP	A	245	-87.738	57.879	76.146	1	90.42	N

ATOM	878	CA	TRP	A	245	-88.901	57.416	76.894	1	88.28	C
ATOM	879	CB	TRP	A	245	-89.269	58.48	77.918	1	82.92	C
ATOM	880	CG	TRP	A	245	-88.13	58.77	78.767	1	84.82	C
ATOM	881	CD1	TRP	A	245	-87.46	59.938	78.85	1	90.78	C
ATOM	882	NE1	TRP	A	245	-86.412	59.823	79.735	1	95.99	N
ATOM	883	CE2	TRP	A	245	-86.391	58.548	80.227	1	93.24	C
ATOM	884	CD2	TRP	A	245	-87.454	57.851	79.628	1	89.47	C
ATOM	885	CE3	TRP	A	245	-87.649	56.507	79.959	1	92.16	C
ATOM	886	CZ3	TRP	A	245	-86.791	55.919	80.862	1	93.77	C
ATOM	887	CH2	TRP	A	245	-85.75	56.637	81.443	1	99.05	C
ATOM	888	CZ2	TRP	A	245	-85.53	57.953	81.136	1	98.6	C
ATOM	889	C	TRP	A	245	-90.076	57.105	75.988	1	97.21	C
ATOM	890	O	TRP	A	245	-90.989	57.917	75.837	1	95.66	O
ATOM	891	N	GLN	A	246	-90.059	55.915	75.39	1	105.88	N
ATOM	892	CA	GLN	A	246	-91.043	55.578	74.357	1	111.81	C
ATOM	893	CB	GLN	A	246	-90.551	54.455	73.434	1	123.7	C
ATOM	894	CG	GLN	A	246	-89.487	54.902	72.433	1	130.87	C
ATOM	895	CD	GLN	A	246	-88.41	53.851	72.196	1	140.61	C
ATOM	896	OE1	GLN	A	246	-87.935	53.207	73.137	1	151.21	O
ATOM	897	NE2	GLN	A	246	-88.008	53.684	70.939	1	138.66	N
ATOM	898	C	GLN	A	246	-92.362	55.215	74.996	1	102.39	C
ATOM	899	O	GLN	A	246	-93.313	55.98	74.883	1	88.05	O
ATOM	900	N	ARG	A	247	-92.401	54.066	75.673	1	103.85	N
ATOM	901	CA	ARG	A	247	-93.632	53.535	76.298	1	105.47	C
ATOM	902	CB	ARG	A	247	-93.379	52.423	77.353	1	116.62	C
ATOM	903	CG	ARG	A	247	-92.024	52.411	78.054	1	138.83	C
ATOM	904	CD	ARG	A	247	-90.968	51.606	77.297	1	162.74	C
ATOM	905	NE	ARG	A	247	-89.738	52.389	77.095	1	189.4	N
ATOM	906	CZ	ARG	A	247	-88.91	52.302	76.044	1	193.42	C
ATOM	907	NH1	ARG	A	247	-89.13	51.457	75.032	1	187.21	N
ATOM	908	NH2	ARG	A	247	-87.833	53.089	76.002	1	196.3	N
ATOM	909	C	ARG	A	247	-94.457	54.664	76.879	1	90.19	C
ATOM	910	O	ARG	A	247	-95.607	54.86	76.484	1	81.67	O
ATOM	911	N	VAL	A	248	-93.828	55.431	77.763	1	79.34	N
ATOM	912	CA	VAL	A	248	-94.406	56.659	78.302	1	77.65	C
ATOM	913	CB	VAL	A	248	-93.315	57.494	79.013	1	77.78	C
ATOM	914	CG1	VAL	A	248	-93.764	58.927	79.299	1	78.8	C
ATOM	915	CG2	VAL	A	248	-92.882	56.806	80.296	1	82.6	C
ATOM	916	C	VAL	A	248	-95.064	57.5	77.202	1	78.6	C
ATOM	917	O	VAL	A	248	-96.254	57.822	77.276	1	84.02	O
ATOM	918	N	THR	A	249	-94.274	57.859	76.197	1	76.31	N
ATOM	919	CA	THR	A	249	-94.741	58.691	75.094	1	76.08	C
ATOM	920	CB	THR	A	249	-93.591	59.017	74.131	1	79.62	C
ATOM	921	OG1	THR	A	249	-92.407	59.321	74.879	1	79.04	O

ATOM	922	CG2	THR	A	249	-93.953	60.201	73.221	1	81.77	C
ATOM	923	C	THR	A	249	-95.823	57.992	74.305	1	75.06	C
ATOM	924	O	THR	A	249	-96.821	58.616	73.91	1	68.46	O
ATOM	925	N	ARG	A	250	-95.611	56.695	74.084	1	80.55	N
ATOM	926	CA	ARG	A	250	-96.56	55.858	73.364	1	84.81	C
ATOM	927	CB	ARG	A	250	-96.035	54.441	73.183	1	84.6	C
ATOM	928	CG	ARG	A	250	-96.801	53.637	72.147	1	89.47	C
ATOM	929	CD	ARG	A	250	-96.455	52.166	72.206	1	101.82	C
ATOM	930	NE	ARG	A	250	-95.076	51.931	72.649	1	122.44	N
ATOM	931	CZ	ARG	A	250	-93.966	52.165	71.931	1	132.06	C
ATOM	932	NH1	ARG	A	250	-94.026	52.663	70.69	1	133.47	N
ATOM	933	NH2	ARG	A	250	-92.769	51.903	72.47	1	131.01	N
ATOM	934	C	ARG	A	250	-97.876	55.823	74.106	1	86.85	C
ATOM	935	O	ARG	A	250	-98.928	55.994	73.5	1	83.33	O
ATOM	936	N	LYS	A	251	-97.812	55.619	75.42	1	89.6	N
ATOM	937	CA	LYS	A	251	-99.021	55.549	76.233	1	90.55	C
ATOM	938	CB	LYS	A	251	-98.781	54.779	77.542	1	85.26	C
ATOM	939	CG	LYS	A	251	-98.607	53.29	77.328	1	89.33	C
ATOM	940	CD	LYS	A	251	-99.003	52.446	78.527	1	95.75	C
ATOM	941	CE	LYS	A	251	-98.798	50.963	78.218	1	107.51	C
ATOM	942	NZ	LYS	A	251	-99.387	50.019	79.212	1	110.54	N
ATOM	943	C	LYS	A	251	-99.66	56.907	76.517	1	94.44	C
ATOM	944	O	LYS	A	251	-100.856	56.954	76.751	1	106.77	O
ATOM	945	N	CYS	A	252	-98.916	58.007	76.497	1	100.82	N
ATOM	946	CA	CYS	A	252	-99.492	59.267	76.951	1	102.06	C
ATOM	947	CB	CYS	A	252	-98.977	59.562	78.353	1	104.33	C
ATOM	948	SG	CYS	A	252	-99.591	58.373	79.573	1	130.45	S
ATOM	949	C	CYS	A	252	-99.325	60.498	76.099	1	108.28	C
ATOM	950	O	CYS	A	252	-99.979	61.48	76.392	1	119.72	O
ATOM	951	N	HIS	A	253	-98.513	60.474	75.045	1	113.22	N
ATOM	952	CA	HIS	A	253	-98.034	61.72	74.447	1	110.91	C
ATOM	953	CB	HIS	A	253	-99.147	62.488	73.723	1	115.87	C
ATOM	954	CG	HIS	A	253	-99.501	61.961	72.387	1	125.29	C
ATOM	955	ND1	HIS	A	253	-100.797	61.663	72.033	1	136.51	N
ATOM	956	CE1	HIS	A	253	-100.818	61.26	70.777	1	142.14	C
ATOM	957	NE2	HIS	A	253	-99.585	61.291	70.307	1	137.95	N
ATOM	958	CD2	HIS	A	253	-98.745	61.747	71.29	1	132.68	C
ATOM	959	C	HIS	A	253	-97.471	62.584	75.582	1	108.55	C
ATOM	960	O	HIS	A	253	-96.549	62.155	76.285	1	104.88	O
ATOM	961	N	GLU	A	254	-98.104	63.742	75.804	1	108.11	N
ATOM	962	CA	GLU	A	254	-97.675	64.76	76.749	1	118.74	C
ATOM	963	CB	GLU	A	254	-97.214	66.006	75.962	1	123.89	C
ATOM	964	CG	GLU	A	254	-98.005	66.3	74.685	1	125.98	C
ATOM	965	CD	GLU	A	254	-97.717	67.675	74.084	1	132.7	C

ATOM	966	OE1	GLU	A	254	-96.537	68.093	74.001	1	116.76	O
ATOM	967	OE2	GLU	A	254	-98.692	68.343	73.679	1	141.84	O
ATOM	968	C	GLU	A	254	-98.787	65.086	77.802	1	120.27	C
ATOM	969	O	GLU	A	254	-98.659	66.037	78.582	1	116.65	O
ATOM	970	N	ASP	A	255	-99.853	64.275	77.825	1	123.45	N
ATOM	971	CA	ASP	A	255	-100.918	64.3	78.853	1	123.33	C
ATOM	972	CB	ASP	A	255	-101.957	63.203	78.494	1	120.82	C
ATOM	973	CG	ASP	A	255	-103.163	63.134	79.433	1	117.92	C
ATOM	974	OD1	ASP	A	255	-102.985	63.1	80.667	1	114.46	O
ATOM	975	OD2	ASP	A	255	-104.306	63.042	78.919	1	114.99	O
ATOM	976	C	ASP	A	255	-100.321	64.087	80.258	1	125.29	C
ATOM	977	O	ASP	A	255	-99.732	63.041	80.529	1	120.6	O
ATOM	978	N	GLU	A	256	-100.476	65.082	81.136	1	129.27	N
ATOM	979	CA	GLU	A	256	-99.915	65.026	82.502	1	131.36	C
ATOM	980	CB	GLU	A	256	-100.01	66.394	83.211	1	140.15	C
ATOM	981	CG	GLU	A	256	-98.78	67.276	83.023	1	144.55	C
ATOM	982	CD	GLU	A	256	-98.9	68.63	83.705	1	142.81	C
ATOM	983	OE1	GLU	A	256	-97.978	68.972	84.478	1	139.15	O
ATOM	984	OE2	GLU	A	256	-99.901	69.349	83.467	1	136.06	O
ATOM	985	C	GLU	A	256	-100.59	63.949	83.349	1	122.57	C
ATOM	986	O	GLU	A	256	-99.923	63.061	83.888	1	113.33	O
ATOM	987	N	ASN	A	257	-101.914	64.052	83.45	1	119.04	N
ATOM	988	CA	ASN	A	257	-102.75	63.076	84.149	1	116	C
ATOM	989	CB	ASN	A	257	-104.222	63.314	83.79	1	115.12	C
ATOM	990	CG	ASN	A	257	-105.167	62.321	84.44	1	119.38	C
ATOM	991	OD1	ASN	A	257	-104.764	61.361	85.095	1	118.14	O
ATOM	992	ND2	ASN	A	257	-106.445	62.566	84.27	1	127.25	N
ATOM	993	C	ASN	A	257	-102.343	61.663	83.771	1	112.43	C
ATOM	994	O	ASN	A	257	-102.001	60.847	84.629	1	110.48	O
ATOM	995	N	CYS	A	258	-102.36	61.401	82.472	1	106.92	N
ATOM	996	CA	CYS	A	258	-101.946	60.125	81.939	1	101.5	C
ATOM	997	CB	CYS	A	258	-101.945	60.163	80.41	1	102.79	C
ATOM	998	SG	CYS	A	258	-101.642	58.569	79.627	1	119.47	S
ATOM	999	C	CYS	A	258	-100.572	59.762	82.508	1	92.81	C
ATOM	1000	O	CYS	A	258	-100.437	58.735	83.166	1	83.35	O
ATOM	1001	N	ILE	A	259	-99.577	60.631	82.331	1	92.5	N
ATOM	1002	CA	ILE	A	259	-98.226	60.312	82.803	1	103.11	C
ATOM	1003	CB	ILE	A	259	-97.16	61.383	82.435	1	106.51	C
ATOM	1004	CG1	ILE	A	259	-96.943	61.442	80.914	1	104.67	C
ATOM	1005	CD1	ILE	A	259	-96.124	62.628	80.434	1	101.15	C
ATOM	1006	CG2	ILE	A	259	-95.813	61.057	83.084	1	108	C
ATOM	1007	C	ILE	A	259	-98.254	60.028	84.309	1	109.16	C
ATOM	1008	O	ILE	A	259	-97.537	59.144	84.769	1	112.65	O
ATOM	1009	N	SER	A	260	-99.104	60.747	85.051	1	114.75	N

ATOM	1010	CA	SER	A	260	-99.297	60.51	86.5	1	120.49	C
ATOM	1011	CB	SER	A	260	-100.212	61.58	87.128	1	122.92	C
ATOM	1012	OG	SER	A	260	-101.592	61.318	86.905	1	118.55	O
ATOM	1013	C	SER	A	260	-99.834	59.113	86.848	1	116.36	C
ATOM	1014	O	SER	A	260	-99.596	58.616	87.957	1	107.9	O
ATOM	1015	N	THR	A	261	-100.543	58.492	85.905	1	112.37	N
ATOM	1016	CA	THR	A	261	-101.117	57.16	86.093	1	114.75	C
ATOM	1017	CB	THR	A	261	-102.526	57.064	85.426	1	119.85	C
ATOM	1018	OG1	THR	A	261	-102.408	57.006	83.996	1	117.45	O
ATOM	1019	CG2	THR	A	261	-103.431	58.246	85.83	1	122.2	C
ATOM	1020	C	THR	A	261	-100.224	56.018	85.566	1	106.87	C
ATOM	1021	O	THR	A	261	-100.747	54.998	85.117	1	102.94	O
ATOM	1022	N	LEU	A	262	-98.898	56.161	85.652	1	100.69	N
ATOM	1023	CA	LEU	A	262	-97.971	55.209	85.008	1	109.82	C
ATOM	1024	CB	LEU	A	262	-97.056	55.933	84.002	1	118.65	C
ATOM	1025	CG	LEU	A	262	-97.368	55.785	82.502	1	117.65	C
ATOM	1026	CD1	LEU	A	262	-97.562	54.33	82.102	1	115.28	C
ATOM	1027	CD2	LEU	A	262	-98.594	56.575	82.116	1	115.03	C
ATOM	1028	C	LEU	A	262	-97.126	54.41	85.991	1	106.66	C
ATOM	1029	O	LEU	A	262	-96.874	54.856	87.099	1	106.54	O
ATOM	1030	N	SER	A	263	-96.66	53.244	85.552	1	111.92	N
ATOM	1031	CA	SER	A	263	-96.042	52.271	86.453	1	125.43	C
ATOM	1032	CB	SER	A	263	-96.133	50.858	85.858	1	131.24	C
ATOM	1033	OG	SER	A	263	-97.48	50.442	85.762	1	149.39	O
ATOM	1034	C	SER	A	263	-94.598	52.572	86.842	1	129.26	C
ATOM	1035	O	SER	A	263	-94.346	53.182	87.883	1	136.89	O
ATOM	1036	N	LYS	A	264	-93.676	52.19	85.962	1	126.63	N
ATOM	1037	CA	LYS	A	264	-92.286	51.829	86.294	1	123.67	C
ATOM	1038	CB	LYS	A	264	-92.13	51.214	87.699	1	127.1	C
ATOM	1039	CG	LYS	A	264	-90.77	50.553	87.939	1	130.32	C
ATOM	1040	CD	LYS	A	264	-90.436	50.337	89.413	1	132.55	C
ATOM	1041	CE	LYS	A	264	-90.858	48.967	89.923	1	133.04	C
ATOM	1042	NZ	LYS	A	264	-92.336	48.788	89.936	1	135.83	N
ATOM	1043	C	LYS	A	264	-91.832	50.811	85.257	1	125.2	C
ATOM	1044	O	LYS	A	264	-90.717	50.894	84.749	1	121.07	O
ATOM	1045	N	GLN	A	265	-92.693	49.828	84.983	1	129.24	N
ATOM	1046	CA	GLN	A	265	-92.496	48.914	83.855	1	135.32	C
ATOM	1047	CB	GLN	A	265	-93.464	47.724	83.885	1	147.47	C
ATOM	1048	CG	GLN	A	265	-93.129	46.645	84.908	1	156.11	C
ATOM	1049	CD	GLN	A	265	-93.574	46.98	86.327	1	157.46	C
ATOM	1050	OE1	GLN	A	265	-93.914	48.126	86.643	1	164.94	O
ATOM	1051	NE2	GLN	A	265	-93.565	45.976	87.193	1	150.53	N
ATOM	1052	C	GLN	A	265	-92.702	49.694	82.573	1	133.84	C
ATOM	1053	O	GLN	A	265	-92.031	49.437	81.582	1	151.65	O

ATOM	1054	N	ASP	A	266	-93.631	50.648	82.603	1	131.1	N
ATOM	1055	CA	ASP	A	266	-93.84	51.598	81.502	1	136.79	C
ATOM	1056	CB	ASP	A	266	-95.25	52.191	81.586	1	139.43	C
ATOM	1057	CG	ASP	A	266	-96.339	51.188	81.311	1	146.79	C
ATOM	1058	OD1	ASP	A	266	-96.221	50.425	80.32	1	145.98	O
ATOM	1059	OD2	ASP	A	266	-97.336	51.2	82.071	1	150.5	O
ATOM	1060	C	ASP	A	266	-92.848	52.771	81.495	1	128.68	C
ATOM	1061	O	ASP	A	266	-93.219	53.889	81.14	1	127.87	O
ATOM	1062	N	LEU	A	267	-91.592	52.531	81.849	1	119.69	N
ATOM	1063	CA	LEU	A	267	-90.664	53.633	82.072	1	115.25	C
ATOM	1064	CB	LEU	A	267	-90.864	54.144	83.517	1	117.33	C
ATOM	1065	CG	LEU	A	267	-91.052	55.635	83.78	1	112.16	C
ATOM	1066	CD1	LEU	A	267	-91.201	55.838	85.279	1	109.11	C
ATOM	1067	CD2	LEU	A	267	-89.903	56.46	83.225	1	117.97	C
ATOM	1068	C	LEU	A	267	-89.211	53.225	81.833	1	113.3	C
ATOM	1069	O	LEU	A	267	-88.315	53.785	82.462	1	112.69	O
ATOM	1070	N	THR	A	268	-88.97	52.269	80.93	1	111.84	N
ATOM	1071	CA	THR	A	268	-87.607	51.807	80.651	1	121.89	C
ATOM	1072	CB	THR	A	268	-87.564	50.364	80.123	1	127.83	C
ATOM	1073	OG1	THR	A	268	-88.673	49.629	80.644	1	141.53	O
ATOM	1074	CG2	THR	A	268	-86.263	49.682	80.544	1	130.72	C
ATOM	1075	C	THR	A	268	-87.016	52.724	79.606	1	122.89	C
ATOM	1076	O	THR	A	268	-87.741	53.22	78.749	1	129.58	O
ATOM	1077	N	CYS	A	269	-85.711	52.976	79.686	1	123.32	N
ATOM	1078	CA	CYS	A	269	-85.072	53.858	78.72	1	121.24	C
ATOM	1079	CB	CYS	A	269	-83.804	54.501	79.281	1	130.38	C
ATOM	1080	SG	CYS	A	269	-83.448	56.076	78.461	1	141.87	S
ATOM	1081	C	CYS	A	269	-84.779	53.101	77.428	1	115.05	C
ATOM	1082	O	CYS	A	269	-84.937	51.876	77.355	1	102.24	O
ATOM	1083	N	SER	A	270	-84.362	53.858	76.416	1	110.39	N
ATOM	1084	CA	SER	A	270	-84.171	53.354	75.061	1	98.45	C
ATOM	1085	CB	SER	A	270	-84.437	54.475	74.067	1	94.76	C
ATOM	1086	OG	SER	A	270	-83.349	55.378	74.05	1	93.99	O
ATOM	1087	C	SER	A	270	-82.768	52.806	74.819	1	96.06	C
ATOM	1088	O	SER	A	270	-82.608	51.762	74.203	1	109.93	O
ATOM	1089	N	GLY	A	271	-81.749	53.541	75.243	1	96.42	N
ATOM	1090	CA	GLY	A	271	-80.358	53.117	75.044	1	103.07	C
ATOM	1091	C	GLY	A	271	-79.75	53.531	73.717	1	101.07	C
ATOM	1092	O	GLY	A	271	-78.517	53.601	73.588	1	91.9	O
ATOM	1093	N	SER	A	272	-80.6	53.828	72.733	1	102.16	N
ATOM	1094	CA	SER	A	272	-80.132	54.188	71.405	1	106.84	C
ATOM	1095	CB	SER	A	272	-81.305	54.41	70.441	1	107.85	C
ATOM	1096	OG	SER	A	272	-82.091	55.518	70.836	1	106.7	O
ATOM	1097	C	SER	A	272	-79.29	55.443	71.487	1	103.14	C

ATOM	1098	O	SER	A	272	-79.503	56.288	72.36	1	96.35	O
ATOM	1099	N	ASP	A	273	-78.328	55.538	70.576	1	105.7	N
ATOM	1100	CA	ASP	A	273	-77.479	56.722	70.456	1	108.28	C
ATOM	1101	CB	ASP	A	273	-76.268	56.451	69.541	1	111.74	C
ATOM	1102	CG	ASP	A	273	-75.281	55.42	70.126	1	118.63	C
ATOM	1103	OD1	ASP	A	273	-75.294	55.128	71.354	1	120.27	O
ATOM	1104	OD2	ASP	A	273	-74.477	54.895	69.329	1	118.61	O
ATOM	1105	C	ASP	A	273	-78.289	57.909	69.932	1	103.37	C
ATOM	1106	O	ASP	A	273	-77.946	59.063	70.212	1	98.42	O
ATOM	1107	N	ASP	A	274	-79.359	57.613	69.186	1	100.27	N
ATOM	1108	CA	ASP	A	274	-80.326	58.623	68.723	1	103.04	C
ATOM	1109	CB	ASP	A	274	-81.386	57.947	67.833	1	107.71	C
ATOM	1110	CG	ASP	A	274	-81.968	58.88	66.79	1	113.96	C
ATOM	1111	OD1	ASP	A	274	-81.242	59.213	65.83	1	122.57	O
ATOM	1112	OD2	ASP	A	274	-83.16	59.245	66.904	1	112.21	O
ATOM	1113	C	ASP	A	274	-80.989	59.382	69.907	1	103.27	C
ATOM	1114	O	ASP	A	274	-81.342	60.567	69.772	1	95.01	O
ATOM	1115	N	CYS	A	275	-81.144	58.679	71.04	1	99.87	N
ATOM	1116	CA	CYS	A	275	-81.601	59.24	72.326	1	93.92	C
ATOM	1117	CB	CYS	A	275	-82.238	58.142	73.202	1	102.82	C
ATOM	1118	SG	CYS	A	275	-81.998	58.245	75.007	1	116.92	S
ATOM	1119	C	CYS	A	275	-80.49	59.948	73.1	1	90.23	C
ATOM	1120	O	CYS	A	275	-80.687	61.075	73.526	1	85.76	O
ATOM	1121	N	LYS	A	276	-79.341	59.29	73.303	1	91.34	N
ATOM	1122	CA	LYS	A	276	-78.154	59.943	73.904	1	88.87	C
ATOM	1123	CB	LYS	A	276	-76.874	59.116	73.705	1	90.67	C
ATOM	1124	CG	LYS	A	276	-76.8	57.862	74.557	1	99.38	C
ATOM	1125	CD	LYS	A	276	-75.458	57.147	74.45	1	106.03	C
ATOM	1126	CE	LYS	A	276	-75.504	55.785	75.149	1	114.35	C
ATOM	1127	NZ	LYS	A	276	-74.221	55.015	75.143	1	114.74	N
ATOM	1128	C	LYS	A	276	-77.959	61.312	73.267	1	88.91	C
ATOM	1129	O	LYS	A	276	-77.848	62.318	73.962	1	83.51	O
ATOM	1130	N	ALA	A	277	-77.964	61.327	71.934	1	87.57	N
ATOM	1131	CA	ALA	A	277	-77.95	62.563	71.148	1	91.35	C
ATOM	1132	CB	ALA	A	277	-78.02	62.243	69.663	1	100.08	C
ATOM	1133	C	ALA	A	277	-79.094	63.498	71.51	1	88.34	C
ATOM	1134	O	ALA	A	277	-78.892	64.701	71.621	1	86.95	O
ATOM	1135	N	ALA	A	278	-80.295	62.938	71.64	1	86.34	N
ATOM	1136	CA	ALA	A	278	-81.46	63.683	72.126	1	84.82	C
ATOM	1137	CB	ALA	A	278	-82.701	62.798	72.185	1	91.57	C
ATOM	1138	C	ALA	A	278	-81.211	64.288	73.487	1	78.33	C
ATOM	1139	O	ALA	A	278	-81.702	65.374	73.757	1	70.42	O
ATOM	1140	N	TYR	A	279	-80.478	63.567	74.34	1	80.58	N
ATOM	1141	CA	TYR	A	279	-80.114	64.055	75.668	1	86.39	C

ATOM	1142	CB	TYR	A	279	-79.489	62.957	76.546	1	92.48	C
ATOM	1143	CG	TYR	A	279	-79.088	63.435	77.936	1	97.43	C
ATOM	1144	CD1	TYR	A	279	-80.048	63.685	78.911	1	101.39	C
ATOM	1145	CE1	TYR	A	279	-79.691	64.134	80.176	1	103.5	C
ATOM	1146	CZ	TYR	A	279	-78.358	64.33	80.488	1	98.58	C
ATOM	1147	OH	TYR	A	279	-78.014	64.776	81.751	1	97.15	O
ATOM	1148	CE2	TYR	A	279	-77.385	64.083	79.536	1	96.37	C
ATOM	1149	CD2	TYR	A	279	-77.751	63.652	78.269	1	95.22	C
ATOM	1150	C	TYR	A	279	-79.164	65.222	75.547	1	88.06	C
ATOM	1151	O	TYR	A	279	-79.44	66.297	76.076	1	87.6	O
ATOM	1152	N	ILE	A	280	-78.072	65.022	74.81	1	91.33	N
ATOM	1153	CA	ILE	A	280	-77.067	66.086	74.6	1	92.56	C
ATOM	1154	CB	ILE	A	280	-76.043	65.763	73.476	1	93.4	C
ATOM	1155	CG1	ILE	A	280	-75.398	64.363	73.59	1	93.31	C
ATOM	1156	CD1	ILE	A	280	-74.762	64.034	74.917	1	97.24	C
ATOM	1157	CG2	ILE	A	280	-74.954	66.833	73.439	1	96.21	C
ATOM	1158	C	ILE	A	280	-77.72	67.436	74.235	1	94.02	C
ATOM	1159	O	ILE	A	280	-77.223	68.496	74.607	1	98.4	O
ATOM	1160	N	ASP	A	281	-78.827	67.381	73.502	1	96.49	N
ATOM	1161	CA	ASP	A	281	-79.55	68.573	73.083	1	97.59	C
ATOM	1162	CB	ASP	A	281	-80.436	68.238	71.87	1	100.07	C
ATOM	1163	CG	ASP	A	281	-80.78	69.451	71.014	1	98.32	C
ATOM	1164	OD1	ASP	A	281	-79.983	70.409	70.925	1	99.63	O
ATOM	1165	OD2	ASP	A	281	-81.861	69.422	70.391	1	103.92	O
ATOM	1166	C	ASP	A	281	-80.381	69.217	74.203	1	101.15	C
ATOM	1167	O	ASP	A	281	-80.637	70.419	74.125	1	115.64	O
ATOM	1168	N	ILE	A	282	-80.803	68.454	75.224	1	98.03	N
ATOM	1169	CA	ILE	A	282	-81.481	69.059	76.404	1	101.52	C
ATOM	1170	CB	ILE	A	282	-82.444	68.103	77.169	1	104.98	C
ATOM	1171	CG1	ILE	A	282	-81.73	66.869	77.734	1	104.52	C
ATOM	1172	CD1	ILE	A	282	-82.462	66.219	78.887	1	107.31	C
ATOM	1173	CG2	ILE	A	282	-83.623	67.715	76.287	1	108.67	C
ATOM	1174	C	ILE	A	282	-80.553	69.751	77.422	1	100.07	C
ATOM	1175	O	ILE	A	282	-81.043	70.458	78.309	1	99.37	O
ATOM	1176	N	LEU	A	283	-79.238	69.577	77.291	1	97.71	N
ATOM	1177	CA	LEU	A	283	-78.288	70.332	78.119	1	96.44	C
ATOM	1178	CB	LEU	A	283	-76.894	69.716	78.109	1	90.29	C
ATOM	1179	CG	LEU	A	283	-76.796	68.189	78.158	1	94.23	C
ATOM	1180	CD1	LEU	A	283	-75.402	67.761	78.608	1	96.37	C
ATOM	1181	CD2	LEU	A	283	-77.868	67.565	79.047	1	95.54	C
ATOM	1182	C	LEU	A	283	-78.226	71.76	77.601	1	110.36	C
ATOM	1183	O	LEU	A	283	-78.365	72	76.392	1	114.68	O
ATOM	1184	N	GLY	A	284	-78.046	72.704	78.52	1	121.29	N
ATOM	1185	CA	GLY	A	284	-78.068	74.131	78.188	1	131.58	C

ATOM	1186	C	GLY	A	284	-79.444	74.78	78.086	1	125.6	C
ATOM	1187	O	GLY	A	284	-79.552	75.962	77.717	1	115.8	O
ATOM	1188	N	THR	A	285	-80.492	74.016	78.389	1	124.19	N
ATOM	1189	CA	THR	A	285	-81.814	74.576	78.641	1	132.98	C
ATOM	1190	CB	THR	A	285	-82.9	73.927	77.76	1	127.55	C
ATOM	1191	OG1	THR	A	285	-82.597	72.54	77.569	1	117.63	O
ATOM	1192	CG2	THR	A	285	-82.988	74.637	76.413	1	128.38	C
ATOM	1193	C	THR	A	285	-82.157	74.369	80.108	1	136.37	C
ATOM	1194	O	THR	A	285	-81.463	73.634	80.84	1	125.97	O
ATOM	1195	N	VAL	A	286	-83.255	75.005	80.518	1	130.03	N
ATOM	1196	CA	VAL	A	286	-83.791	74.858	81.869	1	118.12	C
ATOM	1197	CB	VAL	A	286	-85.136	75.618	82.026	1	110.9	C
ATOM	1198	CG1	VAL	A	286	-86.258	74.941	81.256	1	107.35	C
ATOM	1199	CG2	VAL	A	286	-85.499	75.77	83.493	1	110.46	C
ATOM	1200	C	VAL	A	286	-83.923	73.391	82.309	1	107.32	C
ATOM	1201	O	VAL	A	286	-83.894	73.115	83.49	1	108.57	O
ATOM	1202	N	LEU	A	287	-84.016	72.461	81.36	1	102.36	N
ATOM	1203	CA	LEU	A	287	-84.104	71.022	81.656	1	108.23	C
ATOM	1204	CB	LEU	A	287	-84.393	70.245	80.369	1	112.75	C
ATOM	1205	CG	LEU	A	287	-85.644	70.658	79.575	1	118.11	C
ATOM	1206	CD1	LEU	A	287	-85.439	70.364	78.096	1	123.07	C
ATOM	1207	CD2	LEU	A	287	-86.9	69.988	80.113	1	117.56	C
ATOM	1208	C	LEU	A	287	-82.85	70.436	82.323	1	105.94	C
ATOM	1209	O	LEU	A	287	-82.922	69.399	83.011	1	85.52	O
ATOM	1210	N	GLN	A	288	-81.708	71.086	82.094	1	113.05	N
ATOM	1211	CA	GLN	A	288	-80.451	70.721	82.758	1	125.06	C
ATOM	1212	CB	GLN	A	288	-79.264	71.44	82.116	1	125.66	C
ATOM	1213	CG	GLN	A	288	-77.929	71.063	82.747	1	120.2	C
ATOM	1214	CD	GLN	A	288	-76.736	71.225	81.819	1	119.3	C
ATOM	1215	OE1	GLN	A	288	-76.782	71.979	80.833	1	112.67	O
ATOM	1216	NE2	GLN	A	288	-75.647	70.513	82.136	1	113.82	N
ATOM	1217	C	GLN	A	288	-80.455	71.043	84.245	1	134.54	C
ATOM	1218	O	GLN	A	288	-79.753	70.377	85.026	1	133.77	O
ATOM	1219	N	VAL	A	289	-81.229	72.073	84.611	1	137.87	N
ATOM	1220	CA	VAL	A	289	-81.36	72.55	85.998	1	132.7	C
ATOM	1221	CB	VAL	A	289	-82.407	73.697	86.135	1	122.98	C
ATOM	1222	CG1	VAL	A	289	-82.602	74.099	87.596	1	130.88	C
ATOM	1223	CG2	VAL	A	289	-82.021	74.919	85.309	1	114.7	C
ATOM	1224	C	VAL	A	289	-81.775	71.399	86.918	1	132.65	C
ATOM	1225	O	VAL	A	289	-82.667	70.613	86.58	1	136.15	O
ATOM	1226	N	GLN	A	290	-81.123	71.312	88.073	1	132.71	N
ATOM	1227	CA	GLN	A	290	-81.504	70.346	89.093	1	149.52	C
ATOM	1228	CB	GLN	A	290	-80.442	70.283	90.202	1	163.75	C
ATOM	1229	CG	GLN	A	290	-80.663	69.212	91.266	1	165.28	C

ATOM	1230	CD	GLN	A	290	-80.672	67.803	90.695	1	162.88	C
ATOM	1231	OE1	GLN	A	290	-79.75	67.404	89.979	1	155.36	O
ATOM	1232	NE2	GLN	A	290	-81.719	67.042	91.006	1	162.6	N
ATOM	1233	C	GLN	A	290	-82.864	70.733	89.678	1	142.63	C
ATOM	1234	O	GLN	A	290	-83.098	71.904	89.985	1	130.34	O
ATOM	1235	N	CYS	A	291	-83.745	69.739	89.804	1	143.26	N
ATOM	1236	CA	CYS	A	291	-85.073	69.9	90.403	1	150.39	C
ATOM	1237	CB	CYS	A	291	-86.134	70.05	89.301	1	156.96	C
ATOM	1238	SG	CYS	A	291	-86.23	68.678	88.123	1	167.33	S
ATOM	1239	C	CYS	A	291	-85.401	68.69	91.286	1	144.36	C
ATOM	1240	O	CYS	A	291	-84.923	67.583	91.016	1	138.55	O
ATOM	1241	N	THR	A	292	-86.199	68.897	92.336	1	134.37	N
ATOM	1242	CA	THR	A	292	-86.716	67.776	93.135	1	132.23	C
ATOM	1243	CB	THR	A	292	-85.884	67.493	94.418	1	135.2	C
ATOM	1244	OG1	THR	A	292	-86.288	66.233	94.992	1	118.6	O
ATOM	1245	CG2	THR	A	292	-86.027	68.621	95.453	1	137.78	C
ATOM	1246	C	THR	A	292	-88.172	67.989	93.476	1	127.05	C
ATOM	1247	O	THR	A	292	-88.726	69.056	93.219	1	112.09	O
ATOM	1248	N	CYS	A	293	-88.766	66.952	94.061	1	130.92	N
ATOM	1249	CA	CYS	A	293	-90.214	66.845	94.205	1	143.56	C
ATOM	1250	CB	CYS	A	293	-90.648	65.564	93.505	1	143.12	C
ATOM	1251	SG	CYS	A	293	-90.182	65.613	91.757	1	147.29	S
ATOM	1252	C	CYS	A	293	-90.774	66.922	95.64	1	145.31	C
ATOM	1253	O	CYS	A	293	-91.962	67.233	95.824	1	145.41	O
ATOM	1254	N	ARG	A	294	-89.939	66.645	96.645	1	141.19	N
ATOM	1255	CA	ARG	A	294	-90.3	66.901	98.047	1	128.2	C
ATOM	1256	CB	ARG	A	294	-89.258	66.308	99.017	1	124.14	C
ATOM	1257	CG	ARG	A	294	-87.867	66.945	99.001	1	124.45	C
ATOM	1258	CD	ARG	A	294	-86.749	65.941	99.254	1	130.56	C
ATOM	1259	NE	ARG	A	294	-87.027	65.025	100.364	1	142.65	N
ATOM	1260	CZ	ARG	A	294	-86.201	64.065	100.782	1	156.03	C
ATOM	1261	NH1	ARG	A	294	-86.565	63.285	101.799	1	168.87	N
ATOM	1262	NH2	ARG	A	294	-85.013	63.88	100.205	1	157.29	N
ATOM	1263	C	ARG	A	294	-90.512	68.409	98.247	1	118.58	C
ATOM	1264	O	ARG	A	294	-89.585	69.148	98.551	1	107.72	O
ATOM	1265	N	THR	A	295	-91.757	68.835	98.042	1	120.41	N
ATOM	1266	CA	THR	A	295	-92.154	70.256	98.017	1	129.4	C
ATOM	1267	CB	THR	A	295	-91.422	71.08	96.902	1	121.88	C
ATOM	1268	OG1	THR	A	295	-90.103	71.428	97.332	1	116.04	O
ATOM	1269	CG2	THR	A	295	-92.153	72.405	96.546	1	114.85	C
ATOM	1270	C	THR	A	295	-93.665	70.324	97.798	1	139.52	C
ATOM	1271	O	THR	A	295	-94.41	70.856	98.626	1	144.38	O
ATOM	1272	N	ILE	A	296	-94.097	69.759	96.675	1	145.93	N
ATOM	1273	CA	ILE	A	296	-95.446	69.958	96.167	1	148.3	C

ATOM	1274	CB	ILE	A	296	-95.412	70.09	94.602	1	157.21	C
ATOM	1275	CG1	ILE	A	296	-95.871	71.494	94.139	1	161.22	C
ATOM	1276	CD1	ILE	A	296	-97.302	71.891	94.459	1	161.97	C
ATOM	1277	CG2	ILE	A	296	-96.135	68.96	93.879	1	155.07	C
ATOM	1278	C	ILE	A	296	-96.374	68.857	96.716	1	136.18	C
ATOM	1279	O	ILE	A	296	-95.918	67.811	97.198	1	115.9	O
ATOM	1280	N	THR	A	297	-97.674	69.124	96.626	1	134.5	N
ATOM	1281	CA	THR	A	297	-98.709	68.355	97.31	1	143.97	C
ATOM	1282	CB	THR	A	297	-100.065	69.11	97.268	1	145.95	C
ATOM	1283	OG1	THR	A	297	-100.373	69.465	95.914	1	153.2	O
ATOM	1284	CG2	THR	A	297	-100.033	70.375	98.123	1	140.9	C
ATOM	1285	C	THR	A	297	-98.961	66.961	96.738	1	135.83	C
ATOM	1286	O	THR	A	297	-99.36	66.837	95.584	1	128.27	O
ATOM	1287	N	GLN	A	298	-98.703	65.937	97.554	1	134.6	N
ATOM	1288	CA	GLN	A	298	-99.393	64.632	97.501	1	146.12	C
ATOM	1289	CB	GLN	A	298	-100.617	64.665	98.446	1	162.69	C
ATOM	1290	CG	GLN	A	298	-100.338	65.128	99.883	1	173.77	C
ATOM	1291	CD	GLN	A	298	-101.587	65.234	100.773	1	174.73	C
ATOM	1292	OE1	GLN	A	298	-101.486	65.59	101.951	1	162.75	O
ATOM	1293	NE2	GLN	A	298	-102.761	64.928	100.219	1	169.57	N
ATOM	1294	C	GLN	A	298	-99.843	64.115	96.116	1	143.67	C
ATOM	1295	O	GLN	A	298	-99.339	63.097	95.639	1	140.48	O
ATOM	1296	N	SER	A	299	-100.803	64.81	95.5	1	142.91	N
ATOM	1297	CA	SER	A	299	-101.361	64.459	94.183	1	142.85	C
ATOM	1298	CB	SER	A	299	-102.568	65.363	93.895	1	138.36	C
ATOM	1299	OG	SER	A	299	-102.266	66.722	94.186	1	125.95	O
ATOM	1300	C	SER	A	299	-100.344	64.582	93.037	1	146.31	C
ATOM	1301	O	SER	A	299	-100.112	63.629	92.28	1	146.7	O
ATOM	1302	N	GLU	A	300	-99.745	65.766	92.933	1	143.05	N
ATOM	1303	CA	GLU	A	300	-98.693	66.059	91.95	1	128.91	C
ATOM	1304	CB	GLU	A	300	-98.449	67.566	91.908	1	124.73	C
ATOM	1305	CG	GLU	A	300	-99.578	68.373	91.293	1	127.23	C
ATOM	1306	CD	GLU	A	300	-99.309	69.872	91.301	1	134.14	C
ATOM	1307	OE1	GLU	A	300	-98.244	70.31	91.79	1	143.79	O
ATOM	1308	OE2	GLU	A	300	-100.172	70.628	90.812	1	143.43	O
ATOM	1309	C	GLU	A	300	-97.351	65.356	92.212	1	122.01	C
ATOM	1310	O	GLU	A	300	-96.478	65.364	91.356	1	127.51	O
ATOM	1311	N	GLU	A	301	-97.188	64.765	93.389	1	128.94	N
ATOM	1312	CA	GLU	A	301	-95.934	64.129	93.808	1	132.34	C
ATOM	1313	CB	GLU	A	301	-96.013	63.843	95.315	1	139.27	C
ATOM	1314	CG	GLU	A	301	-94.733	63.403	96.006	1	135.94	C
ATOM	1315	CD	GLU	A	301	-95.038	62.693	97.311	1	134.39	C
ATOM	1316	OE1	GLU	A	301	-94.52	61.57	97.506	1	140.17	O
ATOM	1317	OE2	GLU	A	301	-95.821	63.252	98.124	1	124.85	O

ATOM	1318	C	GLU	A	301	-95.6	62.84	93.044	1	126.89	C
ATOM	1319	O	GLU	A	301	-94.419	62.525	92.865	1	127.95	O
ATOM	1320	N	SER	A	302	-96.618	62.097	92.605	1	122.84	N
ATOM	1321	CA	SER	A	302	-96.39	60.863	91.832	1	126.06	C
ATOM	1322	CB	SER	A	302	-97.662	60.006	91.786	1	126	C
ATOM	1323	OG	SER	A	302	-97.35	58.653	91.498	1	124.62	O
ATOM	1324	C	SER	A	302	-95.885	61.206	90.413	1	123.24	C
ATOM	1325	O	SER	A	302	-94.84	60.708	89.972	1	108.85	O
ATOM	1326	N	LEU	A	303	-96.638	62.075	89.734	1	120.76	N
ATOM	1327	CA	LEU	A	303	-96.239	62.704	88.464	1	111.81	C
ATOM	1328	CB	LEU	A	303	-97.172	63.877	88.143	1	105.29	C
ATOM	1329	CG	LEU	A	303	-96.878	64.715	86.895	1	99.95	C
ATOM	1330	CD1	LEU	A	303	-97.071	63.861	85.657	1	100.87	C
ATOM	1331	CD2	LEU	A	303	-97.764	65.95	86.834	1	98.22	C
ATOM	1332	C	LEU	A	303	-94.816	63.24	88.496	1	108.25	C
ATOM	1333	O	LEU	A	303	-94.032	62.952	87.602	1	117.89	O
ATOM	1334	N	CYS	A	304	-94.504	64.031	89.516	1	104.27	N
ATOM	1335	CA	CYS	A	304	-93.185	64.644	89.639	1	111.89	C
ATOM	1336	CB	CYS	A	304	-93.088	65.562	90.868	1	115.96	C
ATOM	1337	SG	CYS	A	304	-91.669	66.706	90.874	1	114.84	S
ATOM	1338	C	CYS	A	304	-92.062	63.612	89.694	1	117	C
ATOM	1339	O	CYS	A	304	-91.034	63.816	89.064	1	133.98	O
ATOM	1340	N	LYS	A	305	-92.242	62.51	90.42	1	117.87	N
ATOM	1341	CA	LYS	A	305	-91.147	61.528	90.565	1	129.41	C
ATOM	1342	CB	LYS	A	305	-91.395	60.585	91.752	1	135.72	C
ATOM	1343	CG	LYS	A	305	-90.889	61.158	93.069	1	140.65	C
ATOM	1344	CD	LYS	A	305	-91.066	60.195	94.229	1	145.57	C
ATOM	1345	CE	LYS	A	305	-90.381	60.724	95.48	1	146.92	C
ATOM	1346	NZ	LYS	A	305	-90.689	59.907	96.686	1	147.61	N
ATOM	1347	C	LYS	A	305	-90.797	60.739	89.282	1	134.32	C
ATOM	1348	O	LYS	A	305	-89.776	60.047	89.246	1	140.12	O
ATOM	1349	N	ILE	A	306	-91.634	60.849	88.246	1	130.64	N
ATOM	1350	CA	ILE	A	306	-91.325	60.333	86.908	1	113.04	C
ATOM	1351	CB	ILE	A	306	-92.603	59.928	86.149	1	115.61	C
ATOM	1352	CG1	ILE	A	306	-93.424	58.921	86.974	1	114.8	C
ATOM	1353	CD1	ILE	A	306	-94.902	59.25	86.996	1	113.9	C
ATOM	1354	CG2	ILE	A	306	-92.25	59.402	84.757	1	122.21	C
ATOM	1355	C	ILE	A	306	-90.548	61.406	86.14	1	100.31	C
ATOM	1356	O	ILE	A	306	-89.344	61.279	85.995	1	90.59	O
ATOM	1357	N	PHE	A	307	-91.221	62.463	85.673	1	93.45	N
ATOM	1358	CA	PHE	A	307	-90.565	63.694	85.178	1	98.38	C
ATOM	1359	CB	PHE	A	307	-91.402	64.905	85.608	1	90.78	C
ATOM	1360	CG	PHE	A	307	-92.555	65.226	84.706	1	90.82	C
ATOM	1361	CD1	PHE	A	307	-92.964	64.383	83.672	1	98.26	C

ATOM	1362	CE1	PHE	A	307	-94.037	64.725	82.865	1	101.21	C
ATOM	1363	CZ	PHE	A	307	-94.723	65.908	83.084	1	97.96	C
ATOM	1364	CE2	PHE	A	307	-94.331	66.742	84.11	1	94.29	C
ATOM	1365	CD2	PHE	A	307	-93.26	66.395	84.915	1	89.79	C
ATOM	1366	C	PHE	A	307	-89.151	63.889	85.725	1	108.78	C
ATOM	1367	O	PHE	A	307	-88.204	64.121	84.976	1	111.12	O
ATOM	1368	N	GLN	A	308	-89.04	63.803	87.049	1	118.71	N
ATOM	1369	CA	GLN	A	308	-87.765	63.83	87.749	1	116.52	C
ATOM	1370	CB	GLN	A	308	-87.992	63.716	89.27	1	130.35	C
ATOM	1371	CG	GLN	A	308	-86.758	63.52	90.148	1	139.49	C
ATOM	1372	CD	GLN	A	308	-86.634	62.095	90.68	1	149.97	C
ATOM	1373	OE1	GLN	A	308	-87.585	61.545	91.252	1	157.84	O
ATOM	1374	NE2	GLN	A	308	-85.458	61.494	90.504	1	148.46	N
ATOM	1375	C	GLN	A	308	-86.915	62.704	87.206	1	101.16	C
ATOM	1376	O	GLN	A	308	-85.875	62.962	86.62	1	102.72	O
ATOM	1377	N	HIS	A	309	-87.392	61.472	87.354	1	96.65	N
ATOM	1378	CA	HIS	A	309	-86.656	60.273	86.901	1	106.7	C
ATOM	1379	CB	HIS	A	309	-87.463	59.015	87.207	1	97.16	C
ATOM	1380	CG	HIS	A	309	-86.826	57.77	86.697	1	88.26	C
ATOM	1381	ND1	HIS	A	309	-85.52	57.442	86.982	1	88.18	N
ATOM	1382	CE1	HIS	A	309	-85.221	56.295	86.402	1	92.15	C
ATOM	1383	NE2	HIS	A	309	-86.285	55.874	85.743	1	95	N
ATOM	1384	CD2	HIS	A	309	-87.3	56.787	85.903	1	89.22	C
ATOM	1385	C	HIS	A	309	-86.248	60.247	85.405	1	119.01	C
ATOM	1386	O	HIS	A	309	-85.186	59.712	85.044	1	114.31	O
ATOM	1387	N	MET	A	310	-87.089	60.823	84.55	1	119.35	N
ATOM	1388	CA	MET	A	310	-86.805	60.892	83.118	1	111.6	C
ATOM	1389	CB	MET	A	310	-88.063	61.293	82.343	1	110.1	C
ATOM	1390	CG	MET	A	310	-89.224	60.324	82.565	1	112.68	C
ATOM	1391	SD	MET	A	310	-90.544	60.329	81.329	1	113.67	S
ATOM	1392	CE	MET	A	310	-90.619	62.046	80.849	1	105.73	C
ATOM	1393	C	MET	A	310	-85.636	61.839	82.821	1	111.09	C
ATOM	1394	O	MET	A	310	-84.886	61.6	81.878	1	126.48	O
ATOM	1395	N	LEU	A	311	-85.468	62.877	83.645	1	105.3	N
ATOM	1396	CA	LEU	A	311	-84.386	63.869	83.494	1	101.36	C
ATOM	1397	CB	LEU	A	311	-84.866	65.242	83.973	1	103.49	C
ATOM	1398	CG	LEU	A	311	-85.891	65.893	83.035	1	113.16	C
ATOM	1399	CD1	LEU	A	311	-86.815	66.872	83.757	1	114.59	C
ATOM	1400	CD2	LEU	A	311	-85.18	66.591	81.882	1	115.03	C
ATOM	1401	C	LEU	A	311	-83.07	63.524	84.197	1	100.2	C
ATOM	1402	O	LEU	A	311	-82.077	64.233	84.026	1	91.62	O
ATOM	1403	N	HIS	A	312	-83.045	62.455	84.985	1	112.21	N
ATOM	1404	CA	HIS	A	312	-81.809	62.072	85.668	1	132.7	C
ATOM	1405	CB	HIS	A	312	-82.098	61.289	86.966	1	139.83	C

ATOM	1406	CG	HIS	A	312	-80.893	61.09	87.846	1	139.92	C
ATOM	1407	ND1	HIS	A	312	-80.085	62.129	88.26	1	135.21	N
ATOM	1408	CE1	HIS	A	312	-79.112	61.655	89.018	1	135.16	C
ATOM	1409	NE2	HIS	A	312	-79.265	60.347	89.122	1	136.68	N
ATOM	1410	CD2	HIS	A	312	-80.373	59.969	88.403	1	136.78	C
ATOM	1411	C	HIS	A	312	-80.957	61.27	84.68	1	128.57	C
ATOM	1412	O	HIS	A	312	-81.447	60.327	84.053	1	130.48	O
ATOM	1413	N	ARG	A	313	-79.694	61.668	84.538	1	117.05	N
ATOM	1414	CA	ARG	A	313	-78.793	61.057	83.564	1	117.29	C
ATOM	1415	CB	ARG	A	313	-77.557	61.945	83.344	1	129.16	C
ATOM	1416	CG	ARG	A	313	-76.603	62.14	84.522	1	138.49	C
ATOM	1417	CD	ARG	A	313	-75.344	62.892	84.078	1	139.59	C
ATOM	1418	NE	ARG	A	313	-74.156	62.539	84.857	1	139.8	N
ATOM	1419	CZ	ARG	A	313	-73.51	61.367	84.802	1	150.4	C
ATOM	1420	NH1	ARG	A	313	-73.921	60.371	84.015	1	152.02	N
ATOM	1421	NH2	ARG	A	313	-72.442	61.175	85.567	1	165.65	N
ATOM	1422	C	ARG	A	313	-78.396	59.586	83.817	1	113.24	C
ATOM	1423	O	ARG	A	313	-78.061	58.877	82.861	1	108.1	O
ATOM	1424	N	LYS	A	314	-78.434	59.127	85.071	1	118.33	N
ATOM	1425	CA	LYS	A	314	-78.207	57.7	85.381	1	134.95	C
ATOM	1426	CB	LYS	A	314	-78.201	57.441	86.897	1	143.23	C
ATOM	1427	CG	LYS	A	314	-78.289	55.971	87.34	1	153.5	C
ATOM	1428	CD	LYS	A	314	-76.953	55.375	87.764	1	162.36	C
ATOM	1429	CE	LYS	A	314	-76.61	55.708	89.21	1	173.45	C
ATOM	1430	NZ	LYS	A	314	-75.561	54.806	89.76	1	176.98	N
ATOM	1431	C	LYS	A	314	-79.275	56.83	84.721	1	147.94	C
ATOM	1432	O	LYS	A	314	-78.949	55.812	84.111	1	166.74	O
ATOM	1433	N	SER	A	315	-80.538	57.238	84.861	1	143.56	N
ATOM	1434	CA	SER	A	315	-81.708	56.492	84.367	1	137.29	C
ATOM	1435	CB	SER	A	315	-82.756	57.473	83.845	1	133.39	C
ATOM	1436	OG	SER	A	315	-83.067	58.443	84.829	1	123.54	O
ATOM	1437	C	SER	A	315	-81.431	55.426	83.298	1	140.02	C
ATOM	1438	O	SER	A	315	-81.732	54.251	83.516	1	146.6	O
ATOM	1439	N	CYS	A	316	-80.836	55.838	82.173	1	141.29	N
ATOM	1440	CA	CYS	A	316	-80.59	54.943	81.027	1	144.3	C
ATOM	1441	CB	CYS	A	316	-80.709	55.709	79.698	1	140.19	C
ATOM	1442	SG	CYS	A	316	-82.005	56.957	79.602	1	145.49	S
ATOM	1443	C	CYS	A	316	-79.223	54.239	81.075	1	147.79	C
ATOM	1444	O	CYS	A	316	-79.156	53.016	81.252	1	144.4	O
ATOM	1445	N	PHE	A	317	-78.149	55.025	80.943	1	156.7	N
ATOM	1446	CA	PHE	A	317	-76.813	54.522	80.553	1	159.17	C
ATOM	1447	CB	PHE	A	317	-76.256	55.265	79.301	1	166.51	C
ATOM	1448	CG	PHE	A	317	-77.295	56.054	78.529	1	167.64	C
ATOM	1449	CD1	PHE	A	317	-77.529	57.399	78.834	1	164.77	C

ATOM	1450	CE1	PHE	A	317	-78.488	58.131	78.143	1	157.71	C
ATOM	1451	CZ	PHE	A	317	-79.222	57.53	77.135	1	150.99	C
ATOM	1452	CE2	PHE	A	317	-79.004	56.196	76.814	1	151.07	C
ATOM	1453	CD2	PHE	A	317	-78.047	55.462	77.508	1	155.11	C
ATOM	1454	C	PHE	A	317	-75.889	54.671	81.763	1	149.44	C
ATOM	1455	O	PHE	A	317	-75.199	55.683	81.911	1	126.6	O
ATOM	1456	N	ASN	A	318	-75.873	53.635	82.608	1	161.4	N
ATOM	1457	CA	ASN	A	318	-75.471	53.762	84.031	1	164.81	C
ATOM	1458	CB	ASN	A	318	-76.673	53.506	84.998	1	173.61	C
ATOM	1459	CG	ASN	A	318	-77.812	52.679	84.379	1	170.25	C
ATOM	1460	OD1	ASN	A	318	-77.592	51.782	83.558	1	164.8	O
ATOM	1461	ND2	ASN	A	318	-79.044	52.984	84.792	1	159.63	N
ATOM	1462	C	ASN	A	318	-74.22	52.962	84.444	1	150.82	C
ATOM	1463	O	ASN	A	318	-73.11	53.366	84.105	1	141.6	O
ATOM	1464	OXT	ASN	A	318	-74.248	51.933	85.128	1	139.84	O
TER	1465		ASN	A	318						
ATOM	1466	N	SER	B	130	-86.356	80.684	16.837	1	123.73	N
ATOM	1467	CA	SER	B	130	-85.628	81.956	16.546	1	122.45	C
ATOM	1468	CB	SER	B	130	-86.563	83.162	16.721	1	127.3	C
ATOM	1469	OG	SER	B	130	-85.853	84.353	17.042	1	122.14	O
ATOM	1470	C	SER	B	130	-84.464	82.095	17.494	1	119.3	C
ATOM	1471	O	SER	B	130	-84.561	81.685	18.638	1	130.59	O
ATOM	1472	N	CYS	B	131	-83.375	82.686	17.023	1	111.24	N
ATOM	1473	CA	CYS	B	131	-82.266	83.048	17.897	1	114.61	C
ATOM	1474	CB	CYS	B	131	-80.92	82.878	17.18	1	129.81	C
ATOM	1475	SG	CYS	B	131	-80.507	81.194	16.675	1	150.96	S
ATOM	1476	C	CYS	B	131	-82.382	84.484	18.38	1	108.74	C
ATOM	1477	O	CYS	B	131	-81.475	84.965	19.051	1	115.94	O
ATOM	1478	N	LEU	B	132	-83.457	85.188	18.026	1	109.08	N
ATOM	1479	CA	LEU	B	132	-83.624	86.578	18.458	1	117.31	C
ATOM	1480	CB	LEU	B	132	-84.021	87.499	17.298	1	122.3	C
ATOM	1481	CG	LEU	B	132	-83.316	88.871	17.172	1	123.04	C
ATOM	1482	CD1	LEU	B	132	-82.789	89.477	18.479	1	120.46	C
ATOM	1483	CD2	LEU	B	132	-82.184	88.777	16.166	1	123.71	C
ATOM	1484	C	LEU	B	132	-84.64	86.673	19.581	1	121.76	C
ATOM	1485	O	LEU	B	132	-84.396	87.375	20.561	1	130.64	O
ATOM	1486	N	GLU	B	133	-85.766	85.967	19.458	1	127.3	N
ATOM	1487	CA	GLU	B	133	-86.678	85.767	20.611	1	130.96	C
ATOM	1488	CB	GLU	B	133	-87.892	84.895	20.233	1	136.22	C
ATOM	1489	CG	GLU	B	133	-88.834	85.496	19.19	1	135.26	C
ATOM	1490	CD	GLU	B	133	-90.129	84.711	19.051	1	134.75	C
ATOM	1491	OE1	GLU	B	133	-90.179	83.776	18.223	1	128.07	O
ATOM	1492	OE2	GLU	B	133	-91.096	85.016	19.78	1	142.21	O
ATOM	1493	C	GLU	B	133	-85.915	85.122	21.788	1	115.48	C

ATOM	1494	O	GLU	B	133	-86.124	85.46	22.954	1	103.51	O
ATOM	1495	N	VAL	B	134	-85.007	84.218	21.438	1	106.64	N
ATOM	1496	CA	VAL	B	134	-84.147	83.519	22.384	1	104.95	C
ATOM	1497	CB	VAL	B	134	-83.667	82.197	21.722	1	109.04	C
ATOM	1498	CG1	VAL	B	134	-82.565	81.49	22.507	1	105.03	C
ATOM	1499	CG2	VAL	B	134	-84.865	81.262	21.529	1	114.04	C
ATOM	1500	C	VAL	B	134	-82.972	84.371	22.917	1	104.28	C
ATOM	1501	O	VAL	B	134	-82.298	83.968	23.86	1	106.72	O
ATOM	1502	N	ALA	B	135	-82.723	85.539	22.329	1	104.98	N
ATOM	1503	CA	ALA	B	135	-81.652	86.433	22.785	1	106.69	C
ATOM	1504	CB	ALA	B	135	-80.85	86.921	21.595	1	101.42	C
ATOM	1505	C	ALA	B	135	-82.164	87.621	23.613	1	117.93	C
ATOM	1506	O	ALA	B	135	-81.486	88.05	24.55	1	116.97	O
ATOM	1507	N	GLU	B	136	-83.343	88.148	23.266	1	129.29	N
ATOM	1508	CA	GLU	B	136	-83.957	89.283	23.983	1	136.87	C
ATOM	1509	CB	GLU	B	136	-85.071	89.923	23.139	1	160.08	C
ATOM	1510	CG	GLU	B	136	-85.641	91.248	23.676	1	173.82	C
ATOM	1511	CD	GLU	B	136	-85.044	92.516	23.053	1	174.85	C
ATOM	1512	OE1	GLU	B	136	-85.039	93.563	23.746	1	156.57	O
ATOM	1513	OE2	GLU	B	136	-84.598	92.487	21.878	1	180.13	O
ATOM	1514	C	GLU	B	136	-84.527	88.815	25.31	1	121.82	C
ATOM	1515	O	GLU	B	136	-84.445	89.522	26.32	1	110.68	O
ATOM	1516	N	ALA	B	137	-85.127	87.629	25.283	1	112.36	N
ATOM	1517	CA	ALA	B	137	-85.456	86.893	26.501	1	113.13	C
ATOM	1518	CB	ALA	B	137	-85.927	85.496	26.144	1	118.8	C
ATOM	1519	C	ALA	B	137	-84.266	86.807	27.46	1	100.66	C
ATOM	1520	O	ALA	B	137	-84.421	86.918	28.672	1	100.33	O
ATOM	1521	N	CYS	B	138	-83.086	86.598	26.897	1	96.52	N
ATOM	1522	CA	CYS	B	138	-81.846	86.563	27.661	1	99.52	C
ATOM	1523	CB	CYS	B	138	-80.72	85.977	26.8	1	100.44	C
ATOM	1524	SG	CYS	B	138	-79.686	84.868	27.753	1	113.62	S
ATOM	1525	C	CYS	B	138	-81.463	87.95	28.184	1	105.58	C
ATOM	1526	O	CYS	B	138	-81.096	88.109	29.351	1	98.38	O
ATOM	1527	N	VAL	B	139	-81.551	88.946	27.308	1	121.19	N
ATOM	1528	CA	VAL	B	139	-81.301	90.348	27.67	1	122	C
ATOM	1529	CB	VAL	B	139	-81.395	91.262	26.421	1	125.95	C
ATOM	1530	CG1	VAL	B	139	-81.416	92.748	26.775	1	126.1	C
ATOM	1531	CG2	VAL	B	139	-80.224	90.984	25.49	1	130.5	C
ATOM	1532	C	VAL	B	139	-82.261	90.809	28.774	1	118.12	C
ATOM	1533	O	VAL	B	139	-81.886	91.616	29.623	1	113.82	O
ATOM	1534	N	GLY	B	140	-83.486	90.279	28.763	1	113.8	N
ATOM	1535	CA	GLY	B	140	-84.461	90.528	29.822	1	109.02	C
ATOM	1536	C	GLY	B	140	-84.412	89.509	30.947	1	102.38	C
ATOM	1537	O	GLY	B	140	-85.446	88.954	31.312	1	102.75	O

ATOM	1538	N	ASP	B	141	-83.214	89.249	31.475	1	94.01	N
ATOM	1539	CA	ASP	B	141	-83.024	88.443	32.686	1	99.51	C
ATOM	1540	CB	ASP	B	141	-83.034	86.923	32.417	1	113.69	C
ATOM	1541	CG	ASP	B	141	-82.721	86.074	33.699	1	130.39	C
ATOM	1542	OD1	ASP	B	141	-81.539	85.995	34.138	1	128.21	O
ATOM	1543	OD2	ASP	B	141	-83.664	85.471	34.263	1	138.27	O
ATOM	1544	C	ASP	B	141	-81.697	88.817	33.312	1	92.24	C
ATOM	1545	O	ASP	B	141	-80.64	88.365	32.868	1	88.53	O
ATOM	1546	N	VAL	B	142	-81.767	89.641	34.345	1	88.25	N
ATOM	1547	CA	VAL	B	142	-80.623	89.947	35.213	1	93.34	C
ATOM	1548	CB	VAL	B	142	-80.981	89.857	36.728	1	101.05	C
ATOM	1549	CG1	VAL	B	142	-80.054	90.744	37.57	1	99.4	C
ATOM	1550	CG2	VAL	B	142	-82.438	90.2	36.989	1	99.31	C
ATOM	1551	C	VAL	B	142	-79.398	89.048	34.989	1	94.02	C
ATOM	1552	O	VAL	B	142	-78.338	89.531	34.591	1	93.9	O
ATOM	1553	N	VAL	B	143	-79.554	87.748	35.235	1	94.39	N
ATOM	1554	CA	VAL	B	143	-78.398	86.879	35.408	1	101.2	C
ATOM	1555	CB	VAL	B	143	-78.73	85.681	36.302	1	99.68	C
ATOM	1556	CG1	VAL	B	143	-77.589	84.667	36.319	1	99.66	C
ATOM	1557	CG2	VAL	B	143	-79.018	86.203	37.698	1	102.04	C
ATOM	1558	C	VAL	B	143	-77.801	86.44	34.094	1	109.32	C
ATOM	1559	O	VAL	B	143	-76.566	86.411	33.975	1	97.07	O
ATOM	1560	N	CYS	B	144	-78.657	86.09	33.127	1	119.71	N
ATOM	1561	CA	CYS	B	144	-78.184	85.841	31.756	1	121.68	C
ATOM	1562	CB	CYS	B	144	-79.292	85.376	30.794	1	113.81	C
ATOM	1563	SG	CYS	B	144	-78.988	86.116	29.172	1	119.61	S
ATOM	1564	C	CYS	B	144	-77.57	87.139	31.228	1	118	C
ATOM	1565	O	CYS	B	144	-76.37	87.209	30.933	1	112.16	O
ATOM	1566	N	ASN	B	145	-78.412	88.162	31.134	1	106.73	N
ATOM	1567	CA	ASN	B	145	-78.007	89.464	30.648	1	97.51	C
ATOM	1568	CB	ASN	B	145	-79.098	90.464	30.972	1	100.51	C
ATOM	1569	CG	ASN	B	145	-78.723	91.86	30.593	1	104.84	C
ATOM	1570	OD1	ASN	B	145	-77.891	92.488	31.249	1	115.27	O
ATOM	1571	ND2	ASN	B	145	-79.334	92.363	29.534	1	106.71	N
ATOM	1572	C	ASN	B	145	-76.66	89.914	31.216	1	90.23	C
ATOM	1573	O	ASN	B	145	-75.818	90.401	30.485	1	91.53	O
ATOM	1574	N	ALA	B	146	-76.456	89.735	32.512	1	92.41	N
ATOM	1575	CA	ALA	B	146	-75.14	89.96	33.106	1	102.11	C
ATOM	1576	CB	ALA	B	146	-75.209	89.883	34.623	1	102.7	C
ATOM	1577	C	ALA	B	146	-74.108	88.96	32.564	1	103.96	C
ATOM	1578	O	ALA	B	146	-73.085	89.359	32.017	1	111.13	O
ATOM	1579	N	GLN	B	147	-74.388	87.669	32.699	1	97.95	N
ATOM	1580	CA	GLN	B	147	-73.469	86.641	32.212	1	97.69	C
ATOM	1581	CB	GLN	B	147	-73.979	85.247	32.576	1	101.81	C

ATOM	1582	CG	GLN	B	147	-73.891	84.931	34.059	1	104.28	C
ATOM	1583	CD	GLN	B	147	-72.475	84.972	34.594	1	107.63	C
ATOM	1584	OE1	GLN	B	147	-72.222	85.598	35.622	1	121.52	O
ATOM	1585	NE2	GLN	B	147	-71.543	84.32	33.897	1	99.79	N
ATOM	1586	C	GLN	B	147	-73.214	86.708	30.708	1	94.81	C
ATOM	1587	O	GLN	B	147	-72.146	86.307	30.243	1	96.26	O
ATOM	1588	N	LEU	B	148	-74.187	87.221	29.962	1	88.13	N
ATOM	1589	CA	LEU	B	148	-74.083	87.344	28.515	1	87.41	C
ATOM	1590	CB	LEU	B	148	-75.461	87.525	27.908	1	78.26	C
ATOM	1591	CG	LEU	B	148	-75.54	87.879	26.431	1	75.57	C
ATOM	1592	CD1	LEU	B	148	-74.664	86.996	25.56	1	72.21	C
ATOM	1593	CD2	LEU	B	148	-76.998	87.788	26.006	1	81.88	C
ATOM	1594	C	LEU	B	148	-73.197	88.514	28.136	1	96.63	C
ATOM	1595	O	LEU	B	148	-72.362	88.399	27.235	1	97.01	O
ATOM	1596	N	ALA	B	149	-73.406	89.641	28.817	1	106.55	N
ATOM	1597	CA	ALA	B	149	-72.548	90.819	28.671	1	111.48	C
ATOM	1598	CB	ALA	B	149	-72.918	91.888	29.695	1	116.63	C
ATOM	1599	C	ALA	B	149	-71.081	90.445	28.822	1	105.05	C
ATOM	1600	O	ALA	B	149	-70.294	90.654	27.906	1	104.32	O
ATOM	1601	N	SER	B	150	-70.743	89.858	29.966	1	100.69	N
ATOM	1602	CA	SER	B	150	-69.367	89.487	30.283	1	103.04	C
ATOM	1603	CB	SER	B	150	-69.272	88.905	31.696	1	112.71	C
ATOM	1604	OG	SER	B	150	-70.393	88.087	31.994	1	125.5	O
ATOM	1605	C	SER	B	150	-68.76	88.524	29.275	1	103.49	C
ATOM	1606	O	SER	B	150	-67.576	88.634	28.985	1	109.62	O
ATOM	1607	N	TYR	B	151	-69.562	87.604	28.734	1	109.96	N
ATOM	1608	CA	TYR	B	151	-69.093	86.674	27.676	1	117.66	C
ATOM	1609	CB	TYR	B	151	-69.989	85.425	27.584	1	124.88	C
ATOM	1610	CG	TYR	B	151	-70.269	84.934	26.169	1	127.36	C
ATOM	1611	CD1	TYR	B	151	-69.34	84.148	25.466	1	120.76	C
ATOM	1612	CE1	TYR	B	151	-69.614	83.71	24.178	1	122.62	C
ATOM	1613	CZ	TYR	B	151	-70.829	84.05	23.577	1	126.62	C
ATOM	1614	OH	TYR	B	151	-71.12	83.622	22.306	1	126.56	O
ATOM	1615	CE2	TYR	B	151	-71.757	84.821	24.25	1	123.61	C
ATOM	1616	CD2	TYR	B	151	-71.476	85.259	25.535	1	129.54	C
ATOM	1617	C	TYR	B	151	-68.941	87.329	26.29	1	113.8	C
ATOM	1618	O	TYR	B	151	-67.946	87.086	25.598	1	110.09	O
ATOM	1619	N	LEU	B	152	-69.931	88.117	25.872	1	108.64	N
ATOM	1620	CA	LEU	B	152	-69.813	88.865	24.622	1	106.15	C
ATOM	1621	CB	LEU	B	152	-71.129	89.524	24.224	1	105.68	C
ATOM	1622	CG	LEU	B	152	-72.024	88.646	23.347	1	116.05	C
ATOM	1623	CD1	LEU	B	152	-73.33	89.376	23.042	1	117.44	C
ATOM	1624	CD2	LEU	B	152	-71.322	88.228	22.051	1	120.76	C
ATOM	1625	C	LEU	B	152	-68.702	89.9	24.697	1	114.95	C

ATOM	1626	O	LEU	B	152	-67.899	90.012	23.771	1	124.13	O
ATOM	1627	N	LYS	B	153	-68.641	90.636	25.805	1	126.33	N
ATOM	1628	CA	LYS	B	153	-67.56	91.607	26.028	1	134.43	C
ATOM	1629	CB	LYS	B	153	-67.73	92.348	27.371	1	138.78	C
ATOM	1630	CG	LYS	B	153	-67.293	93.813	27.375	1	148.57	C
ATOM	1631	CD	LYS	B	153	-65.89	94.029	27.929	1	150.24	C
ATOM	1632	CE	LYS	B	153	-65.551	95.515	28.004	1	147.58	C
ATOM	1633	NZ	LYS	B	153	-64.21	95.759	28.607	1	147.45	N
ATOM	1634	C	LYS	B	153	-66.184	90.931	25.942	1	132.52	C
ATOM	1635	O	LYS	B	153	-65.234	91.534	25.441	1	154.28	O
ATOM	1636	N	ALA	B	154	-66.089	89.679	26.393	1	119.47	N
ATOM	1637	CA	ALA	B	154	-64.845	88.912	26.29	1	116.63	C
ATOM	1638	CB	ALA	B	154	-64.961	87.595	27.036	1	115.96	C
ATOM	1639	C	ALA	B	154	-64.414	88.647	24.853	1	113.55	C
ATOM	1640	O	ALA	B	154	-63.261	88.891	24.501	1	108.75	O
ATOM	1641	N	CYS	B	155	-65.328	88.158	24.022	1	118.64	N
ATOM	1642	CA	CYS	B	155	-64.915	87.618	22.729	1	132.41	C
ATOM	1643	CB	CYS	B	155	-64.43	86.173	22.931	1	140.75	C
ATOM	1644	SG	CYS	B	155	-65.621	84.856	23.307	1	138.71	S
ATOM	1645	C	CYS	B	155	-65.902	87.747	21.541	1	136.51	C
ATOM	1646	O	CYS	B	155	-66.969	87.113	21.51	1	114.68	O
ATOM	1647	N	SER	B	156	-65.513	88.59	20.577	1	150.4	N
ATOM	1648	CA	SER	B	156	-66.097	88.62	19.219	1	162.27	C
ATOM	1649	CB	SER	B	156	-67.55	89.143	19.221	1	158.36	C
ATOM	1650	OG	SER	B	156	-67.67	90.374	19.914	1	145.54	O
ATOM	1651	C	SER	B	156	-65.183	89.436	18.268	1	163.84	C
ATOM	1652	O	SER	B	156	-64.412	88.857	17.499	1	147.17	O
ATOM	1653	N	ALA	B	157	-65.273	90.766	18.333	1	173.22	N
ATOM	1654	CA	ALA	B	157	-64.315	91.673	17.682	1	173.09	C
ATOM	1655	CB	ALA	B	157	-64.983	92.469	16.569	1	175.16	C
ATOM	1656	C	ALA	B	157	-63.749	92.59	18.772	1	171.08	C
ATOM	1657	O	ALA	B	157	-64.045	93.793	18.828	1	139.76	O
ATOM	1658	N	ASN	B	158	-62.921	91.974	19.62	1	179.65	N
ATOM	1659	CA	ASN	B	158	-62.426	92.54	20.888	1	180.43	C
ATOM	1660	CB	ASN	B	158	-61.89	91.39	21.772	1	180.16	C
ATOM	1661	CG	ASN	B	158	-61.858	91.726	23.258	1	178.13	C
ATOM	1662	OD1	ASN	B	158	-62.801	92.298	23.804	1	174.36	O
ATOM	1663	ND2	ASN	B	158	-60.779	91.328	23.928	1	175.91	N
ATOM	1664	C	ASN	B	158	-61.343	93.611	20.669	1	175.54	C
ATOM	1665	O	ASN	B	158	-61.407	94.704	21.248	1	154.44	O
ATOM	1666	N	GLY	B	159	-60.346	93.265	19.851	1	180.12	N
ATOM	1667	CA	GLY	B	159	-59.356	94.221	19.334	1	186.47	C
ATOM	1668	C	GLY	B	159	-57.916	93.721	19.37	1	191.76	C
ATOM	1669	O	GLY	B	159	-57.176	94.104	20.282	1	185.11	O

ATOM	1670	N	ASN	B	160	-57.474	92.886	18.417	1	198.85	N
ATOM	1671	CA	ASN	B	160	-58.262	92.333	17.29	1	187.67	C
ATOM	1672	CB	ASN	B	160	-58.321	93.339	16.132	1	163.05	C
ATOM	1673	CG	ASN	B	160	-59.105	92.817	14.935	1	143.43	C
ATOM	1674	OD1	ASN	B	160	-60.329	92.707	14.975	1	122.63	O
ATOM	1675	ND2	ASN	B	160	-58.397	92.499	13.861	1	139.18	N
ATOM	1676	C	ASN	B	160	-57.611	91.021	16.781	1	199.35	C
ATOM	1677	O	ASN	B	160	-56.407	91.028	16.511	1	193.79	O
ATOM	1678	N	PRO	B	161	-58.351	89.91	16.624	1	209.63	N
ATOM	1679	CA	PRO	B	161	-59.796	89.802	16.874	1	209.07	C
ATOM	1680	CB	PRO	B	161	-60.187	88.521	16.119	1	206.22	C
ATOM	1681	CG	PRO	B	161	-58.951	87.693	16.084	1	203.26	C
ATOM	1682	CD	PRO	B	161	-57.777	88.637	16.141	1	207.96	C
ATOM	1683	C	PRO	B	161	-60.156	89.661	18.35	1	198.43	C
ATOM	1684	O	PRO	B	161	-61.075	90.326	18.827	1	200.75	O
ATOM	1685	N	CYS	B	162	-59.42	88.811	19.056	1	181.46	N
ATOM	1686	CA	CYS	B	162	-59.78	88.39	20.399	1	174.28	C
ATOM	1687	CB	CYS	B	162	-61.089	87.585	20.385	1	181.26	C
ATOM	1688	SG	CYS	B	162	-61.066	86.172	19.248	1	185.89	S
ATOM	1689	C	CYS	B	162	-58.679	87.502	20.927	1	153.77	C
ATOM	1690	O	CYS	B	162	-57.808	87.067	20.173	1	153.26	O
ATOM	1691	N	ASP	B	163	-58.722	87.251	22.228	1	137.09	N
ATOM	1692	CA	ASP	B	163	-58.022	86.126	22.821	1	125.34	C
ATOM	1693	CB	ASP	B	163	-57.796	86.379	24.314	1	123.38	C
ATOM	1694	CG	ASP	B	163	-56.845	85.376	24.964	1	124.56	C
ATOM	1695	OD1	ASP	B	163	-56.754	84.205	24.521	1	115.05	O
ATOM	1696	OD2	ASP	B	163	-56.149	85.781	25.931	1	128.9	O
ATOM	1697	C	ASP	B	163	-58.926	84.921	22.568	1	120.23	C
ATOM	1698	O	ASP	B	163	-60.136	85.076	22.343	1	116.21	O
ATOM	1699	N	LEU	B	164	-58.33	83.733	22.564	1	118.96	N
ATOM	1700	CA	LEU	B	164	-59.068	82.494	22.348	1	115.63	C
ATOM	1701	CB	LEU	B	164	-58.339	81.584	21.355	1	109.3	C
ATOM	1702	CG	LEU	B	164	-58.961	80.206	21.094	1	107.69	C
ATOM	1703	CD1	LEU	B	164	-60.392	80.351	20.592	1	107.19	C
ATOM	1704	CD2	LEU	B	164	-58.09	79.412	20.127	1	104.66	C
ATOM	1705	C	LEU	B	164	-59.28	81.79	23.677	1	114.3	C
ATOM	1706	O	LEU	B	164	-60.42	81.632	24.105	1	116.47	O
ATOM	1707	N	LYS	B	165	-58.191	81.388	24.333	1	108.96	N
ATOM	1708	CA	LYS	B	165	-58.292	80.662	25.603	1	112.14	C
ATOM	1709	CB	LYS	B	165	-56.913	80.388	26.199	1	110.57	C
ATOM	1710	CG	LYS	B	165	-56.095	79.37	25.426	1	107.06	C
ATOM	1711	CD	LYS	B	165	-55.284	78.462	26.347	1	107.96	C
ATOM	1712	CE	LYS	B	165	-54.101	77.844	25.606	1	117.86	C
ATOM	1713	NZ	LYS	B	165	-53.929	76.371	25.774	1	119.72	N

ATOM	1714	C	LYS	B	165	-59.169	81.402	26.621	1	116.63	C
ATOM	1715	O	LYS	B	165	-59.956	80.78	27.339	1	116.53	O
ATOM	1716	N	GLN	B	166	-59.026	82.725	26.665	1	124.21	N
ATOM	1717	CA	GLN	B	166	-59.957	83.599	27.376	1	127.82	C
ATOM	1718	CB	GLN	B	166	-59.573	85.069	27.173	1	132.76	C
ATOM	1719	CG	GLN	B	166	-60.486	86.114	27.806	1	133.75	C
ATOM	1720	CD	GLN	B	166	-60.508	87.406	27.002	1	140.49	C
ATOM	1721	OE1	GLN	B	166	-59.503	88.113	26.917	1	148.96	O
ATOM	1722	NE2	GLN	B	166	-61.653	87.711	26.394	1	140.9	N
ATOM	1723	C	GLN	B	166	-61.369	83.351	26.862	1	124.31	C
ATOM	1724	O	GLN	B	166	-62.24	83.019	27.656	1	127.4	O
ATOM	1725	N	CYS	B	167	-61.588	83.501	25.55	1	116.21	N
ATOM	1726	CA	CYS	B	167	-62.919	83.308	24.972	1	118.39	C
ATOM	1727	CB	CYS	B	167	-62.913	83.414	23.454	1	115.09	C
ATOM	1728	SG	CYS	B	167	-64.574	83.184	22.763	1	135.48	S
ATOM	1729	C	CYS	B	167	-63.531	81.965	25.372	1	130.67	C
ATOM	1730	O	CYS	B	167	-64.632	81.931	25.923	1	145.11	O
ATOM	1731	N	GLN	B	168	-62.813	80.873	25.106	1	133.87	N
ATOM	1732	CA	GLN	B	168	-63.274	79.507	25.455	1	127.51	C
ATOM	1733	CB	GLN	B	168	-62.277	78.452	24.964	1	121.14	C
ATOM	1734	CG	GLN	B	168	-62.555	78.009	23.538	1	124.01	C
ATOM	1735	CD	GLN	B	168	-61.443	77.171	22.951	1	127.71	C
ATOM	1736	OE1	GLN	B	168	-60.264	77.502	23.088	1	138.97	O
ATOM	1737	NE2	GLN	B	168	-61.809	76.085	22.278	1	126.22	N
ATOM	1738	C	GLN	B	168	-63.546	79.307	26.954	1	125.7	C
ATOM	1739	O	GLN	B	168	-64.653	78.905	27.345	1	117.34	O
ATOM	1740	N	ALA	B	169	-62.547	79.602	27.784	1	118.98	N
ATOM	1741	CA	ALA	B	169	-62.733	79.58	29.236	1	110.96	C
ATOM	1742	CB	ALA	B	169	-61.443	79.949	29.955	1	110.11	C
ATOM	1743	C	ALA	B	169	-63.89	80.491	29.68	1	107.62	C
ATOM	1744	O	ALA	B	169	-64.615	80.135	30.606	1	103.95	O
ATOM	1745	N	ALA	B	170	-64.069	81.637	29.008	1	112.22	N
ATOM	1746	CA	ALA	B	170	-65.2	82.565	29.267	1	113.34	C
ATOM	1747	CB	ALA	B	170	-64.904	83.957	28.724	1	110.89	C
ATOM	1748	C	ALA	B	170	-66.529	82.073	28.702	1	106.51	C
ATOM	1749	O	ALA	B	170	-67.594	82.476	29.183	1	102.12	O
ATOM	1750	N	ILE	B	171	-66.452	81.236	27.67	1	103.16	N
ATOM	1751	CA	ILE	B	171	-67.616	80.543	27.105	1	112.45	C
ATOM	1752	CB	ILE	B	171	-67.316	79.985	25.676	1	121.92	C
ATOM	1753	CG1	ILE	B	171	-67.744	81.017	24.629	1	124.99	C
ATOM	1754	CD1	ILE	B	171	-67.16	80.794	23.252	1	126.85	C
ATOM	1755	CG2	ILE	B	171	-68.013	78.65	25.382	1	120.67	C
ATOM	1756	C	ILE	B	171	-68.119	79.454	28.039	1	109.39	C
ATOM	1757	O	ILE	B	171	-69.324	79.223	28.11	1	111.96	O

ATOM	1758	N	ARG	B	172	-67.209	78.767	28.725	1	108.08	N
ATOM	1759	CA	ARG	B	172	-67.62	77.779	29.721	1	108.37	C
ATOM	1760	CB	ARG	B	172	-66.472	76.833	30.102	1	112.22	C
ATOM	1761	CG	ARG	B	172	-66.412	75.605	29.199	1	119.49	C
ATOM	1762	CD	ARG	B	172	-65.099	74.857	29.302	1	132.56	C
ATOM	1763	NE	ARG	B	172	-63.974	75.683	28.849	1	153.51	N
ATOM	1764	CZ	ARG	B	172	-62.718	75.256	28.68	1	174.67	C
ATOM	1765	NH1	ARG	B	172	-62.384	73.984	28.904	1	183.38	N
ATOM	1766	NH2	ARG	B	172	-61.783	76.114	28.269	1	176.23	N
ATOM	1767	C	ARG	B	172	-68.245	78.479	30.934	1	102.26	C
ATOM	1768	O	ARG	B	172	-69.387	78.181	31.287	1	102.82	O
ATOM	1769	N	PHE	B	173	-67.535	79.447	31.519	1	93.57	N
ATOM	1770	CA	PHE	B	173	-68.087	80.271	32.61	1	92.43	C
ATOM	1771	CB	PHE	B	173	-67.224	81.507	32.874	1	96.78	C
ATOM	1772	CG	PHE	B	173	-67.493	82.204	34.204	1	101.88	C
ATOM	1773	CD1	PHE	B	173	-68.627	83.005	34.391	1	99.77	C
ATOM	1774	CE1	PHE	B	173	-68.84	83.674	35.593	1	100.58	C
ATOM	1775	CZ	PHE	B	173	-67.912	83.569	36.624	1	103.36	C
ATOM	1776	CE2	PHE	B	173	-66.77	82.797	36.453	1	103.51	C
ATOM	1777	CD2	PHE	B	173	-66.559	82.125	35.252	1	104.38	C
ATOM	1778	C	PHE	B	173	-69.496	80.719	32.282	1	88.74	C
ATOM	1779	O	PHE	B	173	-70.346	80.733	33.158	1	100.14	O
ATOM	1780	N	PHE	B	174	-69.738	81.086	31.028	1	85.63	N
ATOM	1781	CA	PHE	B	174	-71.082	81.485	30.586	1	91.37	C
ATOM	1782	CB	PHE	B	174	-71.047	81.96	29.133	1	91.13	C
ATOM	1783	CG	PHE	B	174	-72.394	82.305	28.589	1	85.05	C
ATOM	1784	CD1	PHE	B	174	-73.047	83.442	29.037	1	83.26	C
ATOM	1785	CE1	PHE	B	174	-74.301	83.772	28.554	1	88.98	C
ATOM	1786	CZ	PHE	B	174	-74.918	82.952	27.613	1	89.63	C
ATOM	1787	CE2	PHE	B	174	-74.276	81.803	27.163	1	85.71	C
ATOM	1788	CD2	PHE	B	174	-73.021	81.482	27.656	1	83.18	C
ATOM	1789	C	PHE	B	174	-72.17	80.407	30.726	1	90.98	C
ATOM	1790	O	PHE	B	174	-73.3	80.701	31.137	1	87.86	O
ATOM	1791	N	TYR	B	175	-71.839	79.179	30.348	1	96.89	N
ATOM	1792	CA	TYR	B	175	-72.802	78.068	30.406	1	102.36	C
ATOM	1793	CB	TYR	B	175	-72.519	77.033	29.3	1	99.23	C
ATOM	1794	CG	TYR	B	175	-73.031	77.481	27.946	1	96.72	C
ATOM	1795	CD1	TYR	B	175	-74.393	77.694	27.742	1	96.23	C
ATOM	1796	CE1	TYR	B	175	-74.878	78.112	26.512	1	95.29	C
ATOM	1797	CZ	TYR	B	175	-74.006	78.318	25.459	1	88.74	C
ATOM	1798	OH	TYR	B	175	-74.533	78.717	24.256	1	85.15	O
ATOM	1799	CE2	TYR	B	175	-72.644	78.125	25.63	1	87.18	C
ATOM	1800	CD2	TYR	B	175	-72.162	77.709	26.869	1	94.5	C
ATOM	1801	C	TYR	B	175	-72.875	77.416	31.79	1	98.41	C

ATOM	1802	O	TYR	B	175	-73.884	76.795	32.145	1	88.8	O
ATOM	1803	N	GLN	B	176	-71.815	77.579	32.573	1	94.88	N
ATOM	1804	CA	GLN	B	176	-71.798	77.065	33.925	1	99.24	C
ATOM	1805	CB	GLN	B	176	-70.363	76.969	34.446	1	103.8	C
ATOM	1806	CG	GLN	B	176	-69.506	75.943	33.723	1	107.47	C
ATOM	1807	CD	GLN	B	176	-68.068	75.968	34.203	1	118.58	C
ATOM	1808	OE1	GLN	B	176	-67.193	76.529	33.542	1	122.42	O
ATOM	1809	NE2	GLN	B	176	-67.818	75.381	35.375	1	131.15	N
ATOM	1810	C	GLN	B	176	-72.649	77.905	34.872	1	97.1	C
ATOM	1811	O	GLN	B	176	-72.953	77.45	35.978	1	113.28	O
ATOM	1812	N	ASN	B	177	-73.018	79.123	34.465	1	87.74	N
ATOM	1813	CA	ASN	B	177	-73.812	80.008	35.32	1	90.59	C
ATOM	1814	CB	ASN	B	177	-72.978	81.213	35.742	1	91.19	C
ATOM	1815	CG	ASN	B	177	-71.702	80.82	36.447	1	97.15	C
ATOM	1816	OD1	ASN	B	177	-70.938	79.993	35.964	1	102.69	O
ATOM	1817	ND2	ASN	B	177	-71.457	81.425	37.594	1	105.5	N
ATOM	1818	C	ASN	B	177	-75.107	80.461	34.658	1	90.59	C
ATOM	1819	O	ASN	B	177	-75.512	81.612	34.756	1	91.66	O
ATOM	1820	N	ILE	B	178	-75.785	79.538	34.007	1	96.73	N
ATOM	1821	CA	ILE	B	178	-77.052	79.864	33.383	1	107.12	C
ATOM	1822	CB	ILE	B	178	-76.875	80.354	31.914	1	113.36	C
ATOM	1823	CG1	ILE	B	178	-78.234	80.718	31.289	1	118.98	C
ATOM	1824	CD1	ILE	B	178	-78.175	81.035	29.811	1	122.2	C
ATOM	1825	CG2	ILE	B	178	-76.149	79.327	31.055	1	111.51	C
ATOM	1826	C	ILE	B	178	-77.959	78.643	33.487	1	103.72	C
ATOM	1827	O	ILE	B	178	-77.528	77.537	33.167	1	90.55	O
ATOM	1828	N	PRO	B	179	-79.21	78.84	33.95	1	110.29	N
ATOM	1829	CA	PRO	B	179	-80.213	77.778	33.948	1	117.42	C
ATOM	1830	CB	PRO	B	179	-81.515	78.554	34.143	1	119.59	C
ATOM	1831	CG	PRO	B	179	-81.115	79.669	35.04	1	119.82	C
ATOM	1832	CD	PRO	B	179	-79.728	80.057	34.61	1	115.68	C
ATOM	1833	C	PRO	B	179	-80.244	76.965	32.642	1	118.2	C
ATOM	1834	O	PRO	B	179	-80.284	77.558	31.557	1	130.76	O
ATOM	1835	N	PHE	B	180	-80.218	75.633	32.767	1	106.76	N
ATOM	1836	CA	PHE	B	180	-80.078	74.712	31.625	1	95.16	C
ATOM	1837	CB	PHE	B	180	-80.038	73.263	32.104	1	92.18	C
ATOM	1838	CG	PHE	B	180	-80.387	72.273	31.036	1	82.86	C
ATOM	1839	CD1	PHE	B	180	-79.423	71.819	30.157	1	78.74	C
ATOM	1840	CE1	PHE	B	180	-79.75	70.925	29.159	1	77.17	C
ATOM	1841	CZ	PHE	B	180	-81.061	70.489	29.026	1	81.24	C
ATOM	1842	CE2	PHE	B	180	-82.036	70.942	29.894	1	79.18	C
ATOM	1843	CD2	PHE	B	180	-81.694	71.834	30.886	1	81.87	C
ATOM	1844	C	PHE	B	180	-81.134	74.844	30.516	1	97.48	C
ATOM	1845	O	PHE	B	180	-80.829	74.592	29.353	1	108.05	O

ATOM	1846	N	ASN	B	181	-82.367	75.2	30.857	1	99.18	N
ATOM	1847	CA	ASN	B	181	-83.391	75.436	29.822	1	101.79	C
ATOM	1848	CB	ASN	B	181	-84.754	75.77	30.448	1	102.59	C
ATOM	1849	CG	ASN	B	181	-85.606	74.538	30.697	1	104.51	C
ATOM	1850	OD1	ASN	B	181	-86.803	74.642	30.943	1	118	O
ATOM	1851	ND2	ASN	B	181	-84.998	73.368	30.625	1	105.13	N
ATOM	1852	C	ASN	B	181	-83.032	76.499	28.779	1	103.84	C
ATOM	1853	O	ASN	B	181	-83.485	76.41	27.641	1	110.5	O
ATOM	1854	N	ILE	B	182	-82.219	77.483	29.162	1	100.06	N
ATOM	1855	CA	ILE	B	182	-81.821	78.561	28.261	1	103.29	C
ATOM	1856	CB	ILE	B	182	-81.68	79.928	28.977	1	114.3	C
ATOM	1857	CG1	ILE	B	182	-83.025	80.351	29.575	1	127.35	C
ATOM	1858	CD1	ILE	B	182	-83.478	79.547	30.778	1	132.66	C
ATOM	1859	CG2	ILE	B	182	-81.236	81.023	28.004	1	106.24	C
ATOM	1860	C	ILE	B	182	-80.521	78.148	27.601	1	94.01	C
ATOM	1861	O	ILE	B	182	-80.397	78.248	26.386	1	99.22	O
ATOM	1862	N	ALA	B	183	-79.56	77.675	28.39	1	87.72	N
ATOM	1863	CA	ALA	B	183	-78.319	77.106	27.844	1	92.8	C
ATOM	1864	CB	ALA	B	183	-77.572	76.308	28.9	1	95.81	C
ATOM	1865	C	ALA	B	183	-78.604	76.219	26.639	1	92.96	C
ATOM	1866	O	ALA	B	183	-77.954	76.344	25.607	1	109.48	O
ATOM	1867	N	GLN	B	184	-79.576	75.325	26.787	1	88.84	N
ATOM	1868	CA	GLN	B	184	-80.143	74.607	25.666	1	84.7	C
ATOM	1869	CB	GLN	B	184	-81.36	73.812	26.122	1	87.37	C
ATOM	1870	CG	GLN	B	184	-82.231	73.294	24.994	1	101.08	C
ATOM	1871	CD	GLN	B	184	-83.469	72.607	25.512	1	116.81	C
ATOM	1872	OE1	GLN	B	184	-83.397	71.805	26.444	1	128.2	O
ATOM	1873	NE2	GLN	B	184	-84.62	72.916	24.913	1	125.32	N
ATOM	1874	C	GLN	B	184	-80.537	75.624	24.609	1	87.42	C
ATOM	1875	O	GLN	B	184	-79.891	75.744	23.574	1	91.52	O
ATOM	1876	N	MET	B	185	-81.562	76.407	24.907	1	94.01	N
ATOM	1877	CA	MET	B	185	-82.169	77.281	23.909	1	97.9	C
ATOM	1878	CB	MET	B	185	-83.288	78.125	24.531	1	99.4	C
ATOM	1879	CG	MET	B	185	-84.52	77.287	24.82	1	101.76	C
ATOM	1880	SD	MET	B	185	-85.769	78.106	25.811	1	105.55	S
ATOM	1881	CE	MET	B	185	-86.99	78.502	24.54	1	97.67	C
ATOM	1882	C	MET	B	185	-81.156	78.146	23.172	1	95.28	C
ATOM	1883	O	MET	B	185	-81.322	78.385	21.984	1	111.02	O
ATOM	1884	N	LEU	B	186	-80.099	78.585	23.844	1	87	N
ATOM	1885	CA	LEU	B	186	-79.057	79.302	23.149	1	92.72	C
ATOM	1886	CB	LEU	B	186	-78.131	80.045	24.106	1	94.68	C
ATOM	1887	CG	LEU	B	186	-78.797	81.094	25	1	100.7	C
ATOM	1888	CD1	LEU	B	186	-77.711	81.84	25.773	1	103.11	C
ATOM	1889	CD2	LEU	B	186	-79.717	82.055	24.247	1	94.76	C

ATOM	1890	C	LEU	B	186	-78.291	78.316	22.29	1	100.46	C
ATOM	1891	O	LEU	B	186	-78.482	78.299	21.069	1	111.14	O
ATOM	1892	N	ALA	B	187	-77.489	77.457	22.92	1	102.62	N
ATOM	1893	CA	ALA	B	187	-76.566	76.567	22.201	1	105.28	C
ATOM	1894	CB	ALA	B	187	-76.077	75.448	23.112	1	104.44	C
ATOM	1895	C	ALA	B	187	-77.178	75.987	20.923	1	106.77	C
ATOM	1896	O	ALA	B	187	-76.51	75.943	19.887	1	119.92	O
ATOM	1897	N	PHE	B	188	-78.447	75.579	21.005	1	101.98	N
ATOM	1898	CA	PHE	B	188	-79.209	75.089	19.86	1	111.55	C
ATOM	1899	CB	PHE	B	188	-79.924	73.779	20.227	1	120.11	C
ATOM	1900	CG	PHE	B	188	-79.027	72.718	20.804	1	118.6	C
ATOM	1901	CD1	PHE	B	188	-77.938	72.242	20.084	1	120.54	C
ATOM	1902	CE1	PHE	B	188	-77.123	71.253	20.612	1	125.31	C
ATOM	1903	CZ	PHE	B	188	-77.397	70.722	21.866	1	123.58	C
ATOM	1904	CE2	PHE	B	188	-78.49	71.177	22.587	1	116.56	C
ATOM	1905	CD2	PHE	B	188	-79.302	72.162	22.055	1	114.53	C
ATOM	1906	C	PHE	B	188	-80.269	76.095	19.398	1	116.86	C
ATOM	1907	O	PHE	B	188	-81.344	76.174	19.995	1	120.58	O
ATOM	1908	N	CYS	B	189	-79.979	76.856	18.343	1	126.04	N
ATOM	1909	CA	CYS	B	189	-81.008	77.688	17.69	1	140.62	C
ATOM	1910	CB	CYS	B	189	-81.319	78.945	18.513	1	136.88	C
ATOM	1911	SG	CYS	B	189	-80.047	80.219	18.41	1	147.85	S
ATOM	1912	C	CYS	B	189	-80.63	78.093	16.26	1	150.79	C
ATOM	1913	O	CYS	B	189	-79.444	78.144	15.915	1	150.54	O
ATOM	1914	N	ASP	B	190	-81.653	78.43	15.466	1	153.88	N
ATOM	1915	CA	ASP	B	190	-81.506	78.775	14.041	1	149.44	C
ATOM	1916	CB	ASP	B	190	-81.426	77.48	13.193	1	141.51	C
ATOM	1917	CG	ASP	B	190	-80.01	77.178	12.661	1	143.37	C
ATOM	1918	OD1	ASP	B	190	-79.084	78.019	12.778	1	139.23	O
ATOM	1919	OD2	ASP	B	190	-79.823	76.072	12.106	1	134.33	O
ATOM	1920	C	ASP	B	190	-82.653	79.662	13.524	1	161.11	C
ATOM	1921	O	ASP	B	190	-83.601	79.96	14.256	1	175.5	O
ATOM	1922	N	CYS	B	191	-82.529	80.079	12.26	1	166.52	N
ATOM	1923	CA	CYS	B	191	-83.564	80.819	11.508	1	165.8	C
ATOM	1924	CB	CYS	B	191	-83.857	82.176	12.149	1	170.49	C
ATOM	1925	SG	CYS	B	191	-82.391	83.067	12.713	1	174.82	S
ATOM	1926	C	CYS	B	191	-83.115	81.018	10.053	1	159.97	C
ATOM	1927	O	CYS	B	191	-81.927	80.9	9.755	1	155.8	O
ATOM	1928	N	ALA	B	192	-84.058	81.324	9.159	1	159.52	N
ATOM	1929	CA	ALA	B	192	-83.757	81.485	7.721	1	161.72	C
ATOM	1930	CB	ALA	B	192	-85.035	81.431	6.892	1	152.54	C
ATOM	1931	C	ALA	B	192	-82.999	82.785	7.44	1	174.69	C
ATOM	1932	O	ALA	B	192	-83.068	83.729	8.236	1	180.97	O
ATOM	1933	N	GLN	B	193	-82.29	82.826	6.303	1	182.27	N

ATOM	1934	CA	GLN	B	193	-81.498	84.016	5.889	1	176.5	C
ATOM	1935	CB	GLN	B	193	-80.444	83.665	4.811	1	174.09	C
ATOM	1936	CG	GLN	B	193	-79.018	83.469	5.334	1	168.32	C
ATOM	1937	CD	GLN	B	193	-78.699	82.03	5.695	1	155.65	C
ATOM	1938	OE1	GLN	B	193	-79.422	81.392	6.463	1	131.37	O
ATOM	1939	NE2	GLN	B	193	-77.602	81.513	5.141	1	152.03	N
ATOM	1940	C	GLN	B	193	-82.344	85.222	5.43	1	162.99	C
ATOM	1941	O	GLN	B	193	-81.799	86.303	5.183	1	139.74	O
ATOM	1942	N	SER	B	194	-83.656	85.021	5.296	1	157.97	N
ATOM	1943	CA	SER	B	194	-84.628	86.115	5.194	1	155.72	C
ATOM	1944	CB	SER	B	194	-86.037	85.54	4.988	1	147.1	C
ATOM	1945	OG	SER	B	194	-86.29	84.464	5.875	1	123.7	O
ATOM	1946	C	SER	B	194	-84.621	87.046	6.419	1	165.13	C
ATOM	1947	O	SER	B	194	-84.68	88.27	6.271	1	167.43	O
ATOM	1948	N	ASP	B	195	-84.556	86.453	7.614	1	173	N
ATOM	1949	CA	ASP	B	195	-84.521	87.196	8.883	1	170.62	C
ATOM	1950	CB	ASP	B	195	-85.067	86.311	10.022	1	174.94	C
ATOM	1951	CG	ASP	B	195	-85.596	87.117	11.2	1	188.86	C
ATOM	1952	OD1	ASP	B	195	-84.964	88.124	11.598	1	189.5	O
ATOM	1953	OD2	ASP	B	195	-86.659	86.73	11.733	1	191.66	O
ATOM	1954	C	ASP	B	195	-83.085	87.67	9.166	1	153.76	C
ATOM	1955	O	ASP	B	195	-82.308	86.969	9.81	1	142.17	O
ATOM	1956	N	ILE	B	196	-82.758	88.878	8.706	1	146.33	N
ATOM	1957	CA	ILE	B	196	-81.356	89.342	8.634	1	146.82	C
ATOM	1958	CB	ILE	B	196	-81.17	90.66	7.822	1	143.95	C
ATOM	1959	CG1	ILE	B	196	-82.007	90.685	6.525	1	149.92	C
ATOM	1960	CD1	ILE	B	196	-81.827	89.49	5.612	1	153.6	C
ATOM	1961	CG2	ILE	B	196	-79.688	90.894	7.51	1	133.03	C
ATOM	1962	C	ILE	B	196	-80.679	89.533	9.999	1	150.74	C
ATOM	1963	O	ILE	B	196	-79.515	89.144	10.146	1	147.53	O
ATOM	1964	N	PRO	B	197	-81.378	90.152	10.985	1	150.98	N
ATOM	1965	CA	PRO	B	197	-80.725	90.344	12.287	1	149.52	C
ATOM	1966	CB	PRO	B	197	-81.606	91.395	12.966	1	144.94	C
ATOM	1967	CG	PRO	B	197	-82.961	91.136	12.415	1	146.85	C
ATOM	1968	CD	PRO	B	197	-82.757	90.686	10.996	1	148.62	C
ATOM	1969	C	PRO	B	197	-80.666	89.049	13.105	1	155.9	C
ATOM	1970	O	PRO	B	197	-79.802	88.909	13.976	1	156.5	O
ATOM	1971	N	CYS	B	198	-81.569	88.112	12.807	1	155.35	N
ATOM	1972	CA	CYS	B	198	-81.551	86.772	13.393	1	150.53	C
ATOM	1973	CB	CYS	B	198	-82.826	86.025	12.992	1	150.35	C
ATOM	1974	SG	CYS	B	198	-83.179	84.514	13.902	1	151.76	S
ATOM	1975	C	CYS	B	198	-80.284	85.979	13.022	1	152.91	C
ATOM	1976	O	CYS	B	198	-79.931	85.031	13.721	1	159.56	O
ATOM	1977	N	GLN	B	199	-79.608	86.364	11.935	1	156.34	N

ATOM	1978	CA	GLN	B	199	-78.231	85.908	11.661	1	159.56	C
ATOM	1979	CB	GLN	B	199	-77.904	85.909	10.153	1	159.78	C
ATOM	1980	CG	GLN	B	199	-78.218	84.6	9.44	1	159.44	C
ATOM	1981	CD	GLN	B	199	-79.648	84.14	9.664	1	162.98	C
ATOM	1982	OE1	GLN	B	199	-79.889	83.022	10.105	1	163.11	O
ATOM	1983	NE2	GLN	B	199	-80.602	85.015	9.384	1	166.84	N
ATOM	1984	C	GLN	B	199	-77.201	86.75	12.423	1	158.14	C
ATOM	1985	O	GLN	B	199	-76.257	86.202	12.991	1	167.07	O
ATOM	1986	N	GLN	B	200	-77.377	88.071	12.434	1	151.7	N
ATOM	1987	CA	GLN	B	200	-76.444	88.964	13.137	1	146.53	C
ATOM	1988	CB	GLN	B	200	-76.772	90.441	12.889	1	152.95	C
ATOM	1989	CG	GLN	B	200	-76.568	90.884	11.446	1	156.82	C
ATOM	1990	CD	GLN	B	200	-76.884	92.351	11.229	1	154.31	C
ATOM	1991	OE1	GLN	B	200	-76.452	93.21	12	1	156.39	O
ATOM	1992	NE2	GLN	B	200	-77.633	92.647	10.166	1	146.68	N
ATOM	1993	C	GLN	B	200	-76.394	88.692	14.635	1	134.91	C
ATOM	1994	O	GLN	B	200	-75.362	88.938	15.257	1	135.44	O
ATOM	1995	N	SER	B	201	-77.499	88.202	15.206	1	123.91	N
ATOM	1996	CA	SER	B	201	-77.492	87.68	16.577	1	115.51	C
ATOM	1997	CB	SER	B	201	-78.9	87.459	17.128	1	112.57	C
ATOM	1998	OG	SER	B	201	-79.448	88.682	17.55	1	122.7	O
ATOM	1999	C	SER	B	201	-76.749	86.373	16.572	1	109.89	C
ATOM	2000	O	SER	B	201	-75.695	86.259	17.188	1	99.75	O
ATOM	2001	N	LYS	B	202	-77.288	85.409	15.828	1	116.84	N
ATOM	2002	CA	LYS	B	202	-76.791	84.028	15.822	1	126.81	C
ATOM	2003	CB	LYS	B	202	-77.541	83.184	14.783	1	129.44	C
ATOM	2004	CG	LYS	B	202	-77.034	81.75	14.653	1	141.37	C
ATOM	2005	CD	LYS	B	202	-77.953	80.887	13.808	1	153.7	C
ATOM	2006	CE	LYS	B	202	-77.836	81.204	12.324	1	155.81	C
ATOM	2007	NZ	LYS	B	202	-79.168	81.127	11.667	1	162.91	N
ATOM	2008	C	LYS	B	202	-75.281	83.917	15.601	1	133.26	C
ATOM	2009	O	LYS	B	202	-74.649	82.995	16.117	1	142.11	O
ATOM	2010	N	GLU	B	203	-74.707	84.835	14.826	1	144.7	N
ATOM	2011	CA	GLU	B	203	-73.25	84.895	14.688	1	150.03	C
ATOM	2012	CB	GLU	B	203	-72.81	85.703	13.442	1	157.71	C
ATOM	2013	CG	GLU	B	203	-73.214	87.173	13.389	1	161.8	C
ATOM	2014	CD	GLU	B	203	-72.151	88.105	13.931	1	169.39	C
ATOM	2015	OE1	GLU	B	203	-71.048	88.14	13.342	1	177.66	O
ATOM	2016	OE2	GLU	B	203	-72.422	88.806	14.934	1	167.87	O
ATOM	2017	C	GLU	B	203	-72.592	85.385	15.991	1	149.21	C
ATOM	2018	O	GLU	B	203	-71.635	84.77	16.469	1	135.61	O
ATOM	2019	N	ALA	B	204	-73.136	86.451	16.583	1	155.45	N
ATOM	2020	CA	ALA	B	204	-72.612	86.999	17.844	1	155.04	C
ATOM	2021	CB	ALA	B	204	-73.349	88.273	18.232	1	147.89	C

ATOM	2022	C	ALA	B	204	-72.678	85.983	18.986	1	159.9	C
ATOM	2023	O	ALA	B	204	-71.655	85.714	19.624	1	177.15	O
ATOM	2024	N	LEU	B	205	-73.865	85.406	19.206	1	148.83	N
ATOM	2025	CA	LEU	B	205	-74.126	84.496	20.351	1	142.74	C
ATOM	2026	CB	LEU	B	205	-75.636	84.26	20.536	1	136.96	C
ATOM	2027	CG	LEU	B	205	-76.438	85.474	21.037	1	139.7	C
ATOM	2028	CD1	LEU	B	205	-77.882	85.473	20.537	1	141.01	C
ATOM	2029	CD2	LEU	B	205	-76.398	85.577	22.558	1	130.21	C
ATOM	2030	C	LEU	B	205	-73.395	83.139	20.336	1	143.78	C
ATOM	2031	O	LEU	B	205	-73.369	82.465	21.37	1	141.31	O
ATOM	2032	N	HIS	B	206	-72.82	82.734	19.196	1	140.01	N
ATOM	2033	CA	HIS	B	206	-71.932	81.558	19.138	1	137.04	C
ATOM	2034	CB	HIS	B	206	-72.498	80.464	18.206	1	126.89	C
ATOM	2035	CG	HIS	B	206	-73.838	79.924	18.614	1	126.38	C
ATOM	2036	ND1	HIS	B	206	-75.004	80.243	17.947	1	123.61	N
ATOM	2037	CE1	HIS	B	206	-76.019	79.608	18.506	1	119.72	C
ATOM	2038	NE2	HIS	B	206	-75.552	78.875	19.501	1	123.79	N
ATOM	2039	CD2	HIS	B	206	-74.19	79.047	19.586	1	122.73	C
ATOM	2040	C	HIS	B	206	-70.51	81.943	18.677	1	144.45	C
ATOM	2041	O	HIS	B	206	-69.92	81.224	17.874	1	158.13	O
ATOM	2042	N	SER	B	207	-69.97	83.063	19.179	1	138.09	N
ATOM	2043	CA	SER	B	207	-68.571	83.489	18.919	1	144.22	C
ATOM	2044	CB	SER	B	207	-67.658	83.017	20.069	1	138.93	C
ATOM	2045	OG	SER	B	207	-67.948	83.686	21.283	1	137.83	O
ATOM	2046	C	SER	B	207	-67.979	83.023	17.569	1	153.29	C
ATOM	2047	O	SER	B	207	-67.024	82.238	17.54	1	147.99	O
ATOM	2048	N	LYS	B	208	-68.555	83.501	16.461	1	162.02	N
ATOM	2049	CA	LYS	B	208	-68.18	83.025	15.114	1	159.54	C
ATOM	2050	CB	LYS	B	208	-69.12	83.569	14.027	1	157.73	C
ATOM	2051	CG	LYS	B	208	-70.509	82.958	14.024	1	163.52	C
ATOM	2052	CD	LYS	B	208	-70.533	81.511	13.554	1	162.02	C
ATOM	2053	CE	LYS	B	208	-71.811	80.794	13.967	1	156.72	C
ATOM	2054	NZ	LYS	B	208	-71.5	79.471	14.575	1	153.17	N
ATOM	2055	C	LYS	B	208	-66.763	83.401	14.743	1	165.45	C
ATOM	2056	O	LYS	B	208	-65.934	82.533	14.467	1	179.58	O
ATOM	2057	N	THR	B	209	-66.484	84.697	14.764	1	163.76	N
ATOM	2058	CA	THR	B	209	-65.197	85.223	14.323	1	156.46	C
ATOM	2059	CB	THR	B	209	-65.375	86.645	13.764	1	149.04	C
ATOM	2060	OG1	THR	B	209	-65.861	87.504	14.804	1	150.59	O
ATOM	2061	CG2	THR	B	209	-66.368	86.641	12.61	1	149.33	C
ATOM	2062	C	THR	B	209	-64.175	85.226	15.468	1	155.82	C
ATOM	2063	O	THR	B	209	-63.442	86.201	15.646	1	167.38	O
ATOM	2064	N	CYS	B	210	-64.109	84.127	16.222	1	148.85	N
ATOM	2065	CA	CYS	B	210	-63.23	84.038	17.391	1	152.12	C

ATOM	2066	CB	CYS	B	210	-63.739	84.9	18.546	1	158.69	C
ATOM	2067	SG	CYS	B	210	-62.556	84.965	19.918	1	180.06	S
ATOM	2068	C	CYS	B	210	-62.993	82.626	17.915	1	149.21	C
ATOM	2069	O	CYS	B	210	-61.847	82.281	18.202	1	143.7	O
ATOM	2070	N	ALA	B	211	-64.057	81.831	18.076	1	152.67	N
ATOM	2071	CA	ALA	B	211	-63.935	80.462	18.62	1	143.19	C
ATOM	2072	CB	ALA	B	211	-64.332	80.473	20.088	1	139.55	C
ATOM	2073	C	ALA	B	211	-64.664	79.311	17.885	1	135.67	C
ATOM	2074	O	ALA	B	211	-64.649	78.196	18.393	1	126.85	O
ATOM	2075	N	VAL	B	212	-65.279	79.554	16.721	1	139.4	N
ATOM	2076	CA	VAL	B	212	-65.875	78.474	15.894	1	144.31	C
ATOM	2077	CB	VAL	B	212	-67.395	78.667	15.635	1	134.98	C
ATOM	2078	CG1	VAL	B	212	-68.005	77.446	14.948	1	121.79	C
ATOM	2079	CG2	VAL	B	212	-68.122	78.924	16.937	1	145.82	C
ATOM	2080	C	VAL	B	212	-65.155	78.378	14.551	1	162.52	C
ATOM	2081	O	VAL	B	212	-64.477	77.39	14.269	1	190.21	O
ATOM	2082	N	ASN	B	213	-65.297	79.412	13.729	1	159.28	N
ATOM	2083	CA	ASN	B	213	-64.862	79.35	12.341	1	146.49	C
ATOM	2084	CB	ASN	B	213	-65.727	80.264	11.469	1	139.55	C
ATOM	2085	CG	ASN	B	213	-67.22	80.063	11.715	1	141.98	C
ATOM	2086	OD1	ASN	B	213	-67.975	81.028	11.807	1	142.63	O
ATOM	2087	ND2	ASN	B	213	-67.646	78.809	11.844	1	140.64	N
ATOM	2088	C	ASN	B	213	-63.395	79.716	12.27	1	144.55	C
ATOM	2089	O	ASN	B	213	-63.041	80.893	12.236	1	142.31	O
ATOM	2090	N	MET	B	214	-62.549	78.687	12.308	1	144.89	N
ATOM	2091	CA	MET	B	214	-61.107	78.838	12.148	1	148.95	C
ATOM	2092	CB	MET	B	214	-60.367	77.996	13.175	1	148.15	C
ATOM	2093	CG	MET	B	214	-60.48	78.549	14.581	1	156.54	C
ATOM	2094	SD	MET	B	214	-58.95	78.313	15.491	1	170.41	S
ATOM	2095	CE	MET	B	214	-59.126	79.598	16.717	1	166.94	C
ATOM	2096	C	MET	B	214	-60.697	78.413	10.748	1	159.1	C
ATOM	2097	O	MET	B	214	-60.714	77.227	10.429	1	168.91	O
ATOM	2098	N	VAL	B	215	-60.328	79.394	9.927	1	161.86	N
ATOM	2099	CA	VAL	B	215	-59.956	79.171	8.53	1	159.42	C
ATOM	2100	CB	VAL	B	215	-60.478	80.329	7.632	1	160.04	C
ATOM	2101	CG1	VAL	B	215	-59.79	80.37	6.27	1	173.2	C
ATOM	2102	CG2	VAL	B	215	-61.987	80.207	7.447	1	153.79	C
ATOM	2103	C	VAL	B	215	-58.421	78.988	8.445	1	158.59	C
ATOM	2104	O	VAL	B	215	-57.686	79.69	9.151	1	149.12	O
ATOM	2105	N	PRO	B	216	-57.928	78.032	7.641	1	154.04	N
ATOM	2106	CA	PRO	B	216	-58.745	77.005	6.98	1	144.08	C
ATOM	2107	CB	PRO	B	216	-57.764	76.351	5.985	1	143.43	C
ATOM	2108	CG	PRO	B	216	-56.404	76.739	6.463	1	149.02	C
ATOM	2109	CD	PRO	B	216	-56.592	78.113	7.03	1	151.2	C

ATOM	2110	C	PRO	B	216	-59.295	75.986	8.001	1	129.23	C
ATOM	2111	O	PRO	B	216	-58.592	75.636	8.965	1	103.69	O
ATOM	2112	N	PRO	B	217	-60.556	75.54	7.813	1	121.47	N
ATOM	2113	CA	PRO	B	217	-61.132	74.541	8.707	1	123.27	C
ATOM	2114	CB	PRO	B	217	-62.303	73.967	7.892	1	125.08	C
ATOM	2115	CG	PRO	B	217	-62.669	75.013	6.903	1	126.96	C
ATOM	2116	CD	PRO	B	217	-61.474	75.901	6.711	1	129.36	C
ATOM	2117	C	PRO	B	217	-60.119	73.428	9.021	1	127.78	C
ATOM	2118	O	PRO	B	217	-59.515	72.904	8.084	1	155.53	O
ATOM	2119	N	PRO	B	218	-59.911	73.077	10.315	1	122.5	N
ATOM	2120	CA	PRO	B	218	-59.112	71.872	10.578	1	109.87	C
ATOM	2121	CB	PRO	B	218	-58.729	72.011	12.053	1	109.22	C
ATOM	2122	CG	PRO	B	218	-59.564	73.134	12.61	1	112.24	C
ATOM	2123	CD	PRO	B	218	-60.522	73.587	11.556	1	118.41	C
ATOM	2124	C	PRO	B	218	-59.996	70.658	10.321	1	98.34	C
ATOM	2125	O	PRO	B	218	-61.186	70.833	10.081	1	88.99	O
ATOM	2126	N	THR	B	219	-59.451	69.449	10.332	1	98.81	N
ATOM	2127	CA	THR	B	219	-60.305	68.283	10.071	1	114.83	C
ATOM	2128	CB	THR	B	219	-59.598	67.19	9.277	1	119.71	C
ATOM	2129	OG1	THR	B	219	-58.279	67.006	9.797	1	119.45	O
ATOM	2130	CG2	THR	B	219	-59.55	67.559	7.801	1	128.58	C
ATOM	2131	C	THR	B	219	-60.844	67.648	11.336	1	123.15	C
ATOM	2132	O	THR	B	219	-60.104	67.462	12.312	1	119.35	O
ATOM	2133	N	CYS	B	220	-62.124	67.272	11.274	1	118.21	N
ATOM	2134	CA	CYS	B	220	-62.846	66.672	12.389	1	108.33	C
ATOM	2135	CB	CYS	B	220	-64.232	66.24	11.934	1	107.99	C
ATOM	2136	SG	CYS	B	220	-65.126	67.595	11.141	1	126.25	S
ATOM	2137	C	CYS	B	220	-62.087	65.505	12.975	1	108.62	C
ATOM	2138	O	CYS	B	220	-62.014	65.369	14.191	1	118.96	O
ATOM	2139	N	LEU	B	221	-61.497	64.687	12.112	1	105.82	N
ATOM	2140	CA	LEU	B	221	-60.55	63.676	12.556	1	106.64	C
ATOM	2141	CB	LEU	B	221	-59.909	62.964	11.37	1	117.93	C
ATOM	2142	CG	LEU	B	221	-60.763	62.016	10.537	1	122.44	C
ATOM	2143	CD1	LEU	B	221	-59.896	61.246	9.564	1	128.11	C
ATOM	2144	CD2	LEU	B	221	-61.549	61.037	11.375	1	129.18	C
ATOM	2145	C	LEU	B	221	-59.438	64.286	13.371	1	103.81	C
ATOM	2146	O	LEU	B	221	-59.126	63.787	14.445	1	115.68	O
ATOM	2147	N	SER	B	222	-58.826	65.344	12.843	1	103.28	N
ATOM	2148	CA	SER	B	222	-57.668	65.966	13.492	1	111.24	C
ATOM	2149	CB	SER	B	222	-56.903	66.885	12.536	1	118.87	C
ATOM	2150	OG	SER	B	222	-55.6	67.144	13.034	1	123.12	O
ATOM	2151	C	SER	B	222	-58.017	66.718	14.761	1	103.41	C
ATOM	2152	O	SER	B	222	-57.147	66.858	15.625	1	100.34	O
ATOM	2153	N	VAL	B	223	-59.264	67.193	14.868	1	99.83	N

ATOM	2154	CA	VAL	B	223	-59.805	67.732	16.134	1	105.97	C
ATOM	2155	CB	VAL	B	223	-61.186	68.413	15.95	1	114.9	C
ATOM	2156	CG1	VAL	B	223	-61.837	68.725	17.3	1	119.2	C
ATOM	2157	CG2	VAL	B	223	-61.065	69.682	15.119	1	115.63	C
ATOM	2158	C	VAL	B	223	-59.947	66.63	17.197	1	102.11	C
ATOM	2159	O	VAL	B	223	-59.438	66.785	18.315	1	103.39	O
ATOM	2160	N	ILE	B	224	-60.651	65.546	16.849	1	88.62	N
ATOM	2161	CA	ILE	B	224	-60.833	64.41	17.754	1	79.25	C
ATOM	2162	CB	ILE	B	224	-61.6	63.244	17.114	1	75.84	C
ATOM	2163	CG1	ILE	B	224	-63.051	63.636	16.795	1	79.15	C
ATOM	2164	CD1	ILE	B	224	-63.926	63.93	17.988	1	85.03	C
ATOM	2165	CG2	ILE	B	224	-61.553	62.009	18.02	1	74.85	C
ATOM	2166	C	ILE	B	224	-59.493	63.868	18.222	1	77.41	C
ATOM	2167	O	ILE	B	224	-59.226	63.815	19.396	1	89.29	O
ATOM	2168	N	ARG	B	225	-58.646	63.453	17.31	1	83	N
ATOM	2169	CA	ARG	B	225	-57.381	62.861	17.72	1	95.23	C
ATOM	2170	CB	ARG	B	225	-56.507	62.526	16.494	1	103.36	C
ATOM	2171	CG	ARG	B	225	-56.815	61.19	15.826	1	99.51	C
ATOM	2172	CD	ARG	B	225	-55.889	61.014	14.644	1	106.51	C
ATOM	2173	NE	ARG	B	225	-56.105	59.781	13.892	1	123.67	N
ATOM	2174	CZ	ARG	B	225	-57.128	59.547	13.063	1	141.41	C
ATOM	2175	NH1	ARG	B	225	-57.199	58.383	12.421	1	148.33	N
ATOM	2176	NH2	ARG	B	225	-58.098	60.445	12.881	1	143.24	N
ATOM	2177	C	ARG	B	225	-56.627	63.75	18.738	1	95.28	C
ATOM	2178	O	ARG	B	225	-56.038	63.23	19.705	1	87.5	O
ATOM	2179	N	SER	B	226	-56.671	65.073	18.531	1	99.77	N
ATOM	2180	CA	SER	B	226	-55.985	66.027	19.432	1	108.64	C
ATOM	2181	CB	SER	B	226	-55.926	67.45	18.847	1	102.53	C
ATOM	2182	OG	SER	B	226	-56.976	68.266	19.359	1	92.31	O
ATOM	2183	C	SER	B	226	-56.685	66.071	20.786	1	112.05	C
ATOM	2184	O	SER	B	226	-56.038	66.046	21.845	1	120.84	O
ATOM	2185	N	CYS	B	227	-58.011	66.152	20.724	1	104.67	N
ATOM	2186	CA	CYS	B	227	-58.853	66.097	21.905	1	99.26	C
ATOM	2187	CB	CYS	B	227	-60.336	66.063	21.505	1	105.96	C
ATOM	2188	SG	CYS	B	227	-61.484	66.273	22.864	1	113	S
ATOM	2189	C	CYS	B	227	-58.488	64.902	22.791	1	92.59	C
ATOM	2190	O	CYS	B	227	-57.999	65.106	23.89	1	92.28	O
ATOM	2191	N	GLN	B	228	-58.65	63.679	22.282	1	92.05	N
ATOM	2192	CA	GLN	B	228	-58.218	62.437	22.965	1	98.29	C
ATOM	2193	CB	GLN	B	228	-58.028	61.272	21.97	1	104.08	C
ATOM	2194	CG	GLN	B	228	-59.145	60.94	20.978	1	108.55	C
ATOM	2195	CD	GLN	B	228	-60.532	61.009	21.574	1	114.75	C
ATOM	2196	OE1	GLN	B	228	-60.963	62.068	22.034	1	120.17	O
ATOM	2197	NE2	GLN	B	228	-61.252	59.883	21.552	1	116.62	N

ATOM	2198	C	GLN	B	228	-56.903	62.556	23.746	1	105.76	C
ATOM	2199	O	GLN	B	228	-56.745	61.94	24.8	1	109.98	O
ATOM	2200	N	ASN	B	229	-55.954	63.317	23.208	1	113.7	N
ATOM	2201	CA	ASN	B	229	-54.66	63.514	23.862	1	124.56	C
ATOM	2202	CB	ASN	B	229	-53.673	64.158	22.878	1	126.32	C
ATOM	2203	CG	ASN	B	229	-52.235	63.795	23.179	1	129.83	C
ATOM	2204	OD1	ASN	B	229	-51.653	62.955	22.499	1	135.76	O
ATOM	2205	ND2	ASN	B	229	-51.658	64.415	24.204	1	134.37	N
ATOM	2206	C	ASN	B	229	-54.703	64.331	25.169	1	126.13	C
ATOM	2207	O	ASN	B	229	-53.855	64.135	26.037	1	123.1	O
ATOM	2208	N	ASP	B	230	-55.694	65.216	25.304	1	125.34	N
ATOM	2209	CA	ASP	B	230	-55.751	66.223	26.378	1	130.88	C
ATOM	2210	CB	ASP	B	230	-56.212	67.557	25.771	1	132.64	C
ATOM	2211	CG	ASP	B	230	-56.628	68.573	26.82	1	138.23	C
ATOM	2212	OD1	ASP	B	230	-55.779	68.915	27.669	1	140.63	O
ATOM	2213	OD2	ASP	B	230	-57.798	69.024	26.79	1	136.78	O
ATOM	2214	C	ASP	B	230	-56.694	65.813	27.532	1	132.86	C
ATOM	2215	O	ASP	B	230	-57.889	65.578	27.302	1	137.85	O
ATOM	2216	N	GLU	B	231	-56.16	65.775	28.761	1	122.16	N
ATOM	2217	CA	GLU	B	231	-56.911	65.384	29.964	1	118.08	C
ATOM	2218	CB	GLU	B	231	-56.321	66.079	31.203	1	128.26	C
ATOM	2219	CG	GLU	B	231	-57.183	66.045	32.486	1	138.58	C
ATOM	2220	CD	GLU	B	231	-58.172	67.217	32.638	1	139.09	C
ATOM	2221	OE1	GLU	B	231	-59.323	66.982	33.069	1	133.42	O
ATOM	2222	OE2	GLU	B	231	-57.821	68.375	32.319	1	139.28	O
ATOM	2223	C	GLU	B	231	-58.406	65.671	29.894	1	118.58	C
ATOM	2224	O	GLU	B	231	-59.222	64.75	29.946	1	105.62	O
ATOM	2225	N	LEU	B	232	-58.746	66.957	29.784	1	124.94	N
ATOM	2226	CA	LEU	B	232	-60.117	67.414	29.976	1	124.68	C
ATOM	2227	CB	LEU	B	232	-60.239	68.946	29.951	1	129.65	C
ATOM	2228	CG	LEU	B	232	-61.66	69.522	30.145	1	130.18	C
ATOM	2229	CD1	LEU	B	232	-62.034	69.582	31.619	1	131.23	C
ATOM	2230	CD2	LEU	B	232	-61.803	70.898	29.511	1	127.89	C
ATOM	2231	C	LEU	B	232	-60.974	66.833	28.903	1	123.71	C
ATOM	2232	O	LEU	B	232	-61.877	66.059	29.2	1	140.68	O
ATOM	2233	N	CYS	B	233	-60.689	67.179	27.654	1	109.69	N
ATOM	2234	CA	CYS	B	233	-61.68	66.926	26.64	1	114.16	C
ATOM	2235	CB	CYS	B	233	-61.548	67.878	25.446	1	124.66	C
ATOM	2236	SG	CYS	B	233	-60.392	67.412	24.161	1	142.69	S
ATOM	2237	C	CYS	B	233	-61.793	65.444	26.256	1	106.16	C
ATOM	2238	O	CYS	B	233	-62.858	65.046	25.777	1	102.66	O
ATOM	2239	N	ARG	B	234	-60.775	64.61	26.515	1	101.19	N
ATOM	2240	CA	ARG	B	234	-60.988	63.152	26.345	1	106.46	C
ATOM	2241	CB	ARG	B	234	-59.741	62.271	26.583	1	108.12	C

ATOM	2242	CG	ARG	B	234	-59.311	62.078	28.028	1	124.13	C
ATOM	2243	CD	ARG	B	234	-58.307	60.94	28.228	1	135.7	C
ATOM	2244	NE	ARG	B	234	-57.126	61.395	28.987	1	153.12	N
ATOM	2245	CZ	ARG	B	234	-57.099	61.756	30.28	1	143.72	C
ATOM	2246	NH1	ARG	B	234	-55.949	62.167	30.818	1	129.62	N
ATOM	2247	NH2	ARG	B	234	-58.197	61.732	31.044	1	142.28	N
ATOM	2248	C	ARG	B	234	-62.168	62.7	27.208	1	107.35	C
ATOM	2249	O	ARG	B	234	-62.927	61.83	26.79	1	112.89	O
ATOM	2250	N	ARG	B	235	-62.334	63.318	28.383	1	103.66	N
ATOM	2251	CA	ARG	B	235	-63.495	63.056	29.227	1	101.6	C
ATOM	2252	CB	ARG	B	235	-63.315	63.607	30.64	1	109.96	C
ATOM	2253	CG	ARG	B	235	-62.053	63.138	31.354	1	119.53	C
ATOM	2254	CD	ARG	B	235	-62.247	63.137	32.87	1	130.59	C
ATOM	2255	NE	ARG	B	235	-62.755	64.427	33.37	1	130.77	N
ATOM	2256	CZ	ARG	B	235	-62.065	65.339	34.068	1	118.94	C
ATOM	2257	NH1	ARG	B	235	-62.676	66.465	34.438	1	109.48	N
ATOM	2258	NH2	ARG	B	235	-60.785	65.15	34.411	1	116.82	N
ATOM	2259	C	ARG	B	235	-64.754	63.643	28.612	1	97.8	C
ATOM	2260	O	ARG	B	235	-65.739	62.928	28.42	1	98.51	O
ATOM	2261	N	HIS	B	236	-64.729	64.934	28.286	1	98.37	N
ATOM	2262	CA	HIS	B	236	-65.936	65.586	27.761	1	104.86	C
ATOM	2263	CB	HIS	B	236	-65.745	67.09	27.511	1	108.69	C
ATOM	2264	CG	HIS	B	236	-65.591	67.897	28.759	1	123.85	C
ATOM	2265	ND1	HIS	B	236	-65.223	69.225	28.743	1	133.3	N
ATOM	2266	CE1	HIS	B	236	-65.161	69.678	29.982	1	140.21	C
ATOM	2267	NE2	HIS	B	236	-65.467	68.689	30.803	1	142.32	N
ATOM	2268	CD2	HIS	B	236	-65.731	67.561	30.064	1	136.32	C
ATOM	2269	C	HIS	B	236	-66.423	64.895	26.494	1	100.83	C
ATOM	2270	O	HIS	B	236	-67.638	64.708	26.337	1	97.02	O
ATOM	2271	N	TYR	B	237	-65.488	64.493	25.617	1	94.44	N
ATOM	2272	CA	TYR	B	237	-65.863	63.772	24.404	1	85.1	C
ATOM	2273	CB	TYR	B	237	-64.705	63.502	23.418	1	79.14	C
ATOM	2274	CG	TYR	B	237	-65.256	62.85	22.155	1	78.17	C
ATOM	2275	CD1	TYR	B	237	-66.215	63.522	21.375	1	81.83	C
ATOM	2276	CE1	TYR	B	237	-66.782	62.949	20.255	1	75.52	C
ATOM	2277	CZ	TYR	B	237	-66.406	61.684	19.9	1	79.27	C
ATOM	2278	OH	TYR	B	237	-66.999	61.15	18.787	1	85.28	O
ATOM	2279	CE2	TYR	B	237	-65.464	60.975	20.653	1	75.48	C
ATOM	2280	CD2	TYR	B	237	-64.905	61.556	21.782	1	72.1	C
ATOM	2281	C	TYR	B	237	-66.537	62.469	24.79	1	85.97	C
ATOM	2282	O	TYR	B	237	-67.687	62.239	24.394	1	84.55	O
ATOM	2283	N	ARG	B	238	-65.834	61.65	25.583	1	82.1	N
ATOM	2284	CA	ARG	B	238	-66.357	60.348	26.056	1	79.96	C
ATOM	2285	CB	ARG	B	238	-65.488	59.766	27.174	1	80.63	C

ATOM	2286	CG	ARG	B	238	-64.631	58.58	26.755	1	89.1	C
ATOM	2287	CD	ARG	B	238	-63.204	58.69	27.277	1	98.49	C
ATOM	2288	NE	ARG	B	238	-62.53	57.398	27.42	1	104.35	N
ATOM	2289	CZ	ARG	B	238	-61.22	57.239	27.616	1	110.73	C
ATOM	2290	NH1	ARG	B	238	-60.731	56.01	27.733	1	106.65	N
ATOM	2291	NH2	ARG	B	238	-60.386	58.287	27.68	1	118.36	N
ATOM	2292	C	ARG	B	238	-67.807	60.399	26.522	1	81.01	C
ATOM	2293	O	ARG	B	238	-68.617	59.523	26.17	1	77.41	O
ATOM	2294	N	THR	B	239	-68.129	61.429	27.301	1	79.91	N
ATOM	2295	CA	THR	B	239	-69.491	61.611	27.771	1	84.54	C
ATOM	2296	CB	THR	B	239	-69.575	62.73	28.8	1	83.76	C
ATOM	2297	OG1	THR	B	239	-68.697	62.4	29.873	1	87.83	O
ATOM	2298	CG2	THR	B	239	-71.005	62.879	29.331	1	83.15	C
ATOM	2299	C	THR	B	239	-70.388	61.934	26.605	1	87.3	C
ATOM	2300	O	THR	B	239	-71.387	61.251	26.373	1	84.63	O
ATOM	2301	N	PHE	B	240	-69.996	62.963	25.862	1	91.11	N
ATOM	2302	CA	PHE	B	240	-70.746	63.406	24.701	1	89.64	C
ATOM	2303	CB	PHE	B	240	-70.032	64.566	24.003	1	92.98	C
ATOM	2304	CG	PHE	B	240	-70.69	64.976	22.724	1	90.88	C
ATOM	2305	CD1	PHE	B	240	-72.012	65.414	22.733	1	83.54	C
ATOM	2306	CE1	PHE	B	240	-72.64	65.771	21.565	1	80.69	C
ATOM	2307	CZ	PHE	B	240	-71.958	65.675	20.362	1	84.06	C
ATOM	2308	CE2	PHE	B	240	-70.642	65.228	20.334	1	85	C
ATOM	2309	CD2	PHE	B	240	-70.014	64.877	21.509	1	88.06	C
ATOM	2310	C	PHE	B	240	-71.016	62.279	23.703	1	84.09	C
ATOM	2311	O	PHE	B	240	-72.128	62.203	23.152	1	74.34	O
ATOM	2312	N	GLN	B	241	-70.017	61.418	23.476	1	83.22	N
ATOM	2313	CA	GLN	B	241	-70.197	60.271	22.573	1	90.31	C
ATOM	2314	CB	GLN	B	241	-68.903	59.466	22.304	1	89.22	C
ATOM	2315	CG	GLN	B	241	-68.841	58.957	20.861	1	91.46	C
ATOM	2316	CD	GLN	B	241	-67.89	57.795	20.618	1	91.77	C
ATOM	2317	OE1	GLN	B	241	-66.677	57.974	20.411	1	87.44	O
ATOM	2318	NE2	GLN	B	241	-68.454	56.592	20.581	1	92.7	N
ATOM	2319	C	GLN	B	241	-71.251	59.365	23.157	1	90.57	C
ATOM	2320	O	GLN	B	241	-72.22	59.021	22.483	1	88.06	O
ATOM	2321	N	SER	B	242	-71.073	59.04	24.434	1	90.07	N
ATOM	2322	CA	SER	B	242	-71.898	58.05	25.102	1	89.33	C
ATOM	2323	CB	SER	B	242	-71.207	57.579	26.38	1	92.16	C
ATOM	2324	OG	SER	B	242	-71.763	56.359	26.82	1	97.39	O
ATOM	2325	C	SER	B	242	-73.322	58.521	25.41	1	86.24	C
ATOM	2326	O	SER	B	242	-74.242	57.707	25.388	1	76.27	O
ATOM	2327	N	LYS	B	243	-73.509	59.811	25.701	1	90.18	N
ATOM	2328	CA	LYS	B	243	-74.852	60.344	26.009	1	98.23	C
ATOM	2329	CB	LYS	B	243	-74.8	61.658	26.831	1	103.17	C

ATOM	2330	CG	LYS	B	243	-74.296	61.533	28.275	1	113.38	C
ATOM	2331	CD	LYS	B	243	-74.731	60.237	28.97	1	121.36	C
ATOM	2332	CE	LYS	B	243	-74.27	60.134	30.415	1	125.14	C
ATOM	2333	NZ	LYS	B	243	-73.939	58.715	30.742	1	128.39	N
ATOM	2334	C	LYS	B	243	-75.687	60.546	24.756	1	96.85	C
ATOM	2335	O	LYS	B	243	-76.867	60.182	24.737	1	90.73	O
ATOM	2336	N	CYS	B	244	-75.074	61.116	23.717	1	99.74	N
ATOM	2337	CA	CYS	B	244	-75.791	61.468	22.489	1	97.25	C
ATOM	2338	CB	CYS	B	244	-75.288	62.797	21.937	1	101.97	C
ATOM	2339	SG	CYS	B	244	-75.546	64.199	23.05	1	113.03	S
ATOM	2340	C	CYS	B	244	-75.71	60.409	21.409	1	88.97	C
ATOM	2341	O	CYS	B	244	-76.655	60.267	20.641	1	90.35	O
ATOM	2342	N	TRP	B	245	-74.595	59.681	21.347	1	83.4	N
ATOM	2343	CA	TRP	B	245	-74.372	58.704	20.285	1	87.24	C
ATOM	2344	CB	TRP	B	245	-73.188	59.156	19.435	1	86.75	C
ATOM	2345	CG	TRP	B	245	-73.428	60.478	18.779	1	89.52	C
ATOM	2346	CD1	TRP	B	245	-72.741	61.626	18.993	1	92.53	C
ATOM	2347	NE1	TRP	B	245	-73.249	62.638	18.213	1	91.31	N
ATOM	2348	CE2	TRP	B	245	-74.293	62.149	17.484	1	88.11	C
ATOM	2349	CD2	TRP	B	245	-74.433	60.787	17.81	1	89.85	C
ATOM	2350	CE3	TRP	B	245	-75.439	60.047	17.191	1	95.74	C
ATOM	2351	CZ3	TRP	B	245	-76.251	60.677	16.279	1	102.06	C
ATOM	2352	CH2	TRP	B	245	-76.078	62.034	15.969	1	105.78	C
ATOM	2353	CZ2	TRP	B	245	-75.109	62.785	16.569	1	94.87	C
ATOM	2354	C	TRP	B	245	-74.192	57.273	20.81	1	88.85	C
ATOM	2355	O	TRP	B	245	-73.093	56.717	20.805	1	94.08	O
ATOM	2356	N	GLN	B	246	-75.299	56.67	21.226	1	85.26	N
ATOM	2357	CA	GLN	B	246	-75.254	55.391	21.918	1	84.9	C
ATOM	2358	CB	GLN	B	246	-76.533	55.162	22.719	1	94.52	C
ATOM	2359	CG	GLN	B	246	-76.551	55.968	24.017	1	101.19	C
ATOM	2360	CD	GLN	B	246	-77.899	56.56	24.413	1	114.36	C
ATOM	2361	OE1	GLN	B	246	-78.866	56.585	23.636	1	128.13	O
ATOM	2362	NE2	GLN	B	246	-77.959	57.063	25.641	1	118.63	N
ATOM	2363	C	GLN	B	246	-74.978	54.256	20.965	1	85.37	C
ATOM	2364	O	GLN	B	246	-73.969	53.595	21.121	1	85.93	O
ATOM	2365	N	ARG	B	247	-75.829	54.069	19.952	1	94.17	N
ATOM	2366	CA	ARG	B	247	-75.624	53.033	18.907	1	93.86	C
ATOM	2367	CB	ARG	B	247	-76.422	53.338	17.631	1	103.62	C
ATOM	2368	CG	ARG	B	247	-77.938	53.242	17.733	1	121.31	C
ATOM	2369	CD	ARG	B	247	-78.456	51.807	17.758	1	141.32	C
ATOM	2370	NE	ARG	B	247	-79.654	51.691	18.604	1	163.11	N
ATOM	2371	CZ	ARG	B	247	-80.221	50.548	19.007	1	164.07	C
ATOM	2372	NH1	ARG	B	247	-79.735	49.362	18.633	1	165.1	N
ATOM	2373	NH2	ARG	B	247	-81.302	50.594	19.792	1	157.05	N

ATOM	2374	C	ARG	B	247	-74.159	52.924	18.512	1	88.35	C
ATOM	2375	O	ARG	B	247	-73.669	51.823	18.311	1	81.79	O
ATOM	2376	N	VAL	B	248	-73.476	54.07	18.411	1	86.26	N
ATOM	2377	CA	VAL	B	248	-72.047	54.117	18.076	1	89.43	C
ATOM	2378	CB	VAL	B	248	-71.575	55.534	17.701	1	91.46	C
ATOM	2379	CG1	VAL	B	248	-70.072	55.545	17.368	1	87.98	C
ATOM	2380	CG2	VAL	B	248	-72.412	56.065	16.543	1	98.87	C
ATOM	2381	C	VAL	B	248	-71.169	53.677	19.219	1	92.45	C
ATOM	2382	O	VAL	B	248	-70.218	52.916	19.013	1	103.37	O
ATOM	2383	N	THR	B	249	-71.459	54.214	20.403	1	91.17	N
ATOM	2384	CA	THR	B	249	-70.67	53.94	21.606	1	88.27	C
ATOM	2385	CB	THR	B	249	-71.043	54.903	22.761	1	97.01	C
ATOM	2386	OG1	THR	B	249	-71.08	56.254	22.278	1	105.39	O
ATOM	2387	CG2	THR	B	249	-70.024	54.829	23.888	1	101.66	C
ATOM	2388	C	THR	B	249	-70.849	52.483	22.013	1	72.56	C
ATOM	2389	O	THR	B	249	-69.888	51.768	22.181	1	66.08	O
ATOM	2390	N	ARG	B	250	-72.092	52.056	22.133	1	71.37	N
ATOM	2391	CA	ARG	B	250	-72.453	50.643	22.199	1	80.82	C
ATOM	2392	CB	ARG	B	250	-73.881	50.459	21.658	1	91.62	C
ATOM	2393	CG	ARG	B	250	-74.401	49.03	21.647	1	100.18	C
ATOM	2394	CD	ARG	B	250	-75.836	48.958	22.14	1	114.03	C
ATOM	2395	NE	ARG	B	250	-75.913	49.214	23.589	1	126.75	N
ATOM	2396	CZ	ARG	B	250	-76.337	50.34	24.176	1	137.68	C
ATOM	2397	NH1	ARG	B	250	-76.339	50.426	25.508	1	140.22	N
ATOM	2398	NH2	ARG	B	250	-76.764	51.385	23.464	1	148.81	N
ATOM	2399	C	ARG	B	250	-71.499	49.76	21.408	1	81.23	C
ATOM	2400	O	ARG	B	250	-70.861	48.871	21.967	1	83.53	O
ATOM	2401	N	LYS	B	251	-71.387	50.051	20.114	1	87.88	N
ATOM	2402	CA	LYS	B	251	-70.723	49.161	19.153	1	91.23	C
ATOM	2403	CB	LYS	B	251	-71.294	49.374	17.743	1	99.71	C
ATOM	2404	CG	LYS	B	251	-72.716	48.84	17.614	1	111.7	C
ATOM	2405	CD	LYS	B	251	-73.299	48.998	16.219	1	119.22	C
ATOM	2406	CE	LYS	B	251	-72.793	47.913	15.284	1	132.61	C
ATOM	2407	NZ	LYS	B	251	-73.449	48.012	13.951	1	145.5	N
ATOM	2408	C	LYS	B	251	-69.206	49.251	19.123	1	81.16	C
ATOM	2409	O	LYS	B	251	-68.537	48.241	19	1	68.36	O
ATOM	2410	N	CYS	B	252	-68.668	50.455	19.23	1	85.34	N
ATOM	2411	CA	CYS	B	252	-67.245	50.67	18.974	1	89.72	C
ATOM	2412	CB	CYS	B	252	-67.112	51.548	17.735	1	94.59	C
ATOM	2413	SG	CYS	B	252	-67.842	50.772	16.283	1	92.93	S
ATOM	2414	C	CYS	B	252	-66.393	51.241	20.109	1	84.4	C
ATOM	2415	O	CYS	B	252	-65.159	51.104	20.068	1	76.88	O
ATOM	2416	N	HIS	B	253	-67.027	51.874	21.097	1	79.39	N
ATOM	2417	CA	HIS	B	253	-66.317	52.519	22.206	1	83.43	C

ATOM	2418	CB	HIS	B	253	-65.432	51.513	22.993	1	82.25	C
ATOM	2419	CG	HIS	B	253	-66.21	50.446	23.699	1	78.85	C
ATOM	2420	ND1	HIS	B	253	-65.677	49.692	24.72	1	75.99	N
ATOM	2421	CE1	HIS	B	253	-66.59	48.838	25.149	1	81.08	C
ATOM	2422	NE2	HIS	B	253	-67.7	49.019	24.454	1	77.01	N
ATOM	2423	CD2	HIS	B	253	-67.487	50.017	23.539	1	78.85	C
ATOM	2424	C	HIS	B	253	-65.542	53.738	21.675	1	83.65	C
ATOM	2425	O	HIS	B	253	-66.121	54.81	21.499	1	86.67	O
ATOM	2426	N	GLU	B	254	-64.251	53.597	21.418	1	82.55	N
ATOM	2427	CA	GLU	B	254	-63.563	54.606	20.648	1	89.44	C
ATOM	2428	CB	GLU	B	254	-63.025	55.708	21.57	1	101.54	C
ATOM	2429	CG	GLU	B	254	-62.495	55.269	22.937	1	110.36	C
ATOM	2430	CD	GLU	B	254	-62.687	56.343	24.002	1	116.25	C
ATOM	2431	OE1	GLU	B	254	-61.69	56.984	24.412	1	113.85	O
ATOM	2432	OE2	GLU	B	254	-63.85	56.548	24.417	1	117.66	O
ATOM	2433	C	GLU	B	254	-62.535	53.944	19.716	1	93.26	C
ATOM	2434	O	GLU	B	254	-61.449	54.459	19.458	1	90.73	O
ATOM	2435	N	ASP	B	255	-62.938	52.796	19.178	1	101.46	N
ATOM	2436	CA	ASP	B	255	-62.186	52.09	18.155	1	109.29	C
ATOM	2437	CB	ASP	B	255	-62.627	50.611	18.117	1	113.54	C
ATOM	2438	CG	ASP	B	255	-61.847	49.756	17.104	1	110.11	C
ATOM	2439	OD1	ASP	B	255	-60.867	50.229	16.487	1	113.56	O
ATOM	2440	OD2	ASP	B	255	-62.231	48.582	16.924	1	103.61	O
ATOM	2441	C	ASP	B	255	-62.492	52.824	16.85	1	108.51	C
ATOM	2442	O	ASP	B	255	-63.625	52.786	16.365	1	106.52	O
ATOM	2443	N	GLU	B	256	-61.486	53.523	16.317	1	106.49	N
ATOM	2444	CA	GLU	B	256	-61.632	54.3	15.083	1	99.16	C
ATOM	2445	CB	GLU	B	256	-60.329	55.017	14.706	1	104.07	C
ATOM	2446	CG	GLU	B	256	-59.988	56.182	15.618	1	111.55	C
ATOM	2447	CD	GLU	B	256	-58.877	57.056	15.076	1	111.04	C
ATOM	2448	OE1	GLU	B	256	-59.069	58.293	15.036	1	112.29	O
ATOM	2449	OE2	GLU	B	256	-57.822	56.502	14.697	1	110.63	O
ATOM	2450	C	GLU	B	256	-62.045	53.398	13.947	1	93.95	C
ATOM	2451	O	GLU	B	256	-63.069	53.654	13.302	1	98.55	O
ATOM	2452	N	ASN	B	257	-61.261	52.34	13.716	1	79.81	N
ATOM	2453	CA	ASN	B	257	-61.556	51.407	12.635	1	73.5	C
ATOM	2454	CB	ASN	B	257	-60.623	50.222	12.657	1	71.35	C
ATOM	2455	CG	ASN	B	257	-61.252	48.98	12.074	1	76.59	C
ATOM	2456	OD1	ASN	B	257	-62.116	49.05	11.2	1	71.57	O
ATOM	2457	ND2	ASN	B	257	-60.817	47.824	12.556	1	87.44	N
ATOM	2458	C	ASN	B	257	-62.998	50.946	12.718	1	78.83	C
ATOM	2459	O	ASN	B	257	-63.756	51.105	11.761	1	84.72	O
ATOM	2460	N	CYS	B	258	-63.38	50.402	13.87	1	84.02	N
ATOM	2461	CA	CYS	B	258	-64.774	50.047	14.127	1	87.12	C

ATOM	2462	CB	CYS	B	258	-65.002	49.697	15.589	1	90.22	C
ATOM	2463	SG	CYS	B	258	-66.676	49.115	15.929	1	105.02	S
ATOM	2464	C	CYS	B	258	-65.706	51.185	13.756	1	86.34	C
ATOM	2465	O	CYS	B	258	-66.715	50.966	13.102	1	87.88	O
ATOM	2466	N	ILE	B	259	-65.377	52.397	14.187	1	91.52	N
ATOM	2467	CA	ILE	B	259	-66.202	53.562	13.862	1	99.13	C
ATOM	2468	CB	ILE	B	259	-65.819	54.809	14.702	1	101.15	C
ATOM	2469	CG1	ILE	B	259	-66.135	54.574	16.18	1	97.73	C
ATOM	2470	CD1	ILE	B	259	-65.296	55.419	17.11	1	100.94	C
ATOM	2471	CG2	ILE	B	259	-66.607	56.037	14.259	1	107.37	C
ATOM	2472	C	ILE	B	259	-66.227	53.856	12.347	1	95.63	C
ATOM	2473	O	ILE	B	259	-67.253	54.314	11.851	1	97.07	O
ATOM	2474	N	SER	B	260	-65.139	53.588	11.617	1	86.63	N
ATOM	2475	CA	SER	B	260	-65.173	53.674	10.14	1	88.9	C
ATOM	2476	CB	SER	B	260	-63.812	53.36	9.533	1	85.16	C
ATOM	2477	OG	SER	B	260	-63.747	52.006	9.098	1	84.21	O
ATOM	2478	C	SER	B	260	-66.209	52.693	9.544	1	98.32	C
ATOM	2479	O	SER	B	260	-67.041	53.054	8.684	1	96.58	O
ATOM	2480	N	THR	B	261	-66.131	51.453	10.033	1	96.23	N
ATOM	2481	CA	THR	B	261	-67.066	50.365	9.718	1	94.72	C
ATOM	2482	CB	THR	B	261	-66.761	49.143	10.628	1	100.97	C
ATOM	2483	OG1	THR	B	261	-65.344	48.913	10.653	1	98.92	O
ATOM	2484	CG2	THR	B	261	-67.49	47.871	10.173	1	107.88	C
ATOM	2485	C	THR	B	261	-68.544	50.741	9.87	1	90.6	C
ATOM	2486	O	THR	B	261	-69.411	50.127	9.25	1	87.38	O
ATOM	2487	N	LEU	B	262	-68.827	51.724	10.718	1	92.52	N
ATOM	2488	CA	LEU	B	262	-70.195	52.168	10.965	1	97.98	C
ATOM	2489	CB	LEU	B	262	-70.229	53.23	12.082	1	102.65	C
ATOM	2490	CG	LEU	B	262	-70.672	52.742	13.458	1	100.15	C
ATOM	2491	CD1	LEU	B	262	-72.148	52.403	13.413	1	99.31	C
ATOM	2492	CD2	LEU	B	262	-69.875	51.547	13.93	1	95.56	C
ATOM	2493	C	LEU	B	262	-70.971	52.668	9.741	1	92.84	C
ATOM	2494	O	LEU	B	262	-70.398	53.261	8.823	1	77.8	O
ATOM	2495	N	SER	B	263	-72.283	52.406	9.785	1	95.79	N
ATOM	2496	CA	SER	B	263	-73.238	52.725	8.733	1	101.39	C
ATOM	2497	CB	SER	B	263	-73.986	51.474	8.297	1	105.41	C
ATOM	2498	OG	SER	B	263	-73.093	50.541	7.726	1	119.69	O
ATOM	2499	C	SER	B	263	-74.238	53.726	9.244	1	104.63	C
ATOM	2500	O	SER	B	263	-74.386	53.91	10.448	1	103.33	O
ATOM	2501	N	LYS	B	264	-74.955	54.33	8.306	1	115.88	N
ATOM	2502	CA	LYS	B	264	-75.673	55.572	8.556	1	128.09	C
ATOM	2503	CB	LYS	B	264	-76.041	56.261	7.229	1	139.61	C
ATOM	2504	CG	LYS	B	264	-76.24	57.777	7.319	1	141.12	C
ATOM	2505	CD	LYS	B	264	-74.955	58.569	7.566	1	132.76	C

ATOM	2506	CE	LYS	B	264	-73.953	58.455	6.426	1	127.24	C
ATOM	2507	NZ	LYS	B	264	-72.809	59.381	6.639	1	123.87	N
ATOM	2508	C	LYS	B	264	-76.909	55.373	9.419	1	130.4	C
ATOM	2509	O	LYS	B	264	-77.289	56.281	10.16	1	131.4	O
ATOM	2510	N	GLN	B	265	-77.528	54.198	9.342	1	134.03	N
ATOM	2511	CA	GLN	B	265	-78.652	53.891	10.23	1	139.05	C
ATOM	2512	CB	GLN	B	265	-79.35	52.591	9.814	1	150.91	C
ATOM	2513	CG	GLN	B	265	-79.948	52.676	8.408	1	159.98	C
ATOM	2514	CD	GLN	B	265	-81.131	51.746	8.173	1	168.75	C
ATOM	2515	OE1	GLN	B	265	-81.957	51.526	9.061	1	171.28	O
ATOM	2516	NE2	GLN	B	265	-81.232	51.214	6.956	1	173.44	N
ATOM	2517	C	GLN	B	265	-78.202	53.867	11.701	1	127.66	C
ATOM	2518	O	GLN	B	265	-78.862	54.461	12.552	1	117.63	O
ATOM	2519	N	ASP	B	266	-77.042	53.264	11.975	1	122.72	N
ATOM	2520	CA	ASP	B	266	-76.449	53.245	13.338	1	119.97	C
ATOM	2521	CB	ASP	B	266	-75.259	52.246	13.405	1	116.05	C
ATOM	2522	CG	ASP	B	266	-75.66	50.813	13.826	1	115.44	C
ATOM	2523	OD1	ASP	B	266	-76.406	50.62	14.816	1	113.64	O
ATOM	2524	OD2	ASP	B	266	-75.162	49.862	13.192	1	109.3	O
ATOM	2525	C	ASP	B	266	-75.997	54.633	13.92	1	116.01	C
ATOM	2526	O	ASP	B	266	-75.408	54.685	15.015	1	103.31	O
ATOM	2527	N	LEU	B	267	-76.258	55.741	13.213	1	113.12	N
ATOM	2528	CA	LEU	B	267	-75.916	57.084	13.702	1	106.33	C
ATOM	2529	CB	LEU	B	267	-75.122	57.856	12.648	1	99.57	C
ATOM	2530	CG	LEU	B	267	-73.91	57.149	12.056	1	104.74	C
ATOM	2531	CD1	LEU	B	267	-73.162	58.108	11.146	1	112.49	C
ATOM	2532	CD2	LEU	B	267	-72.991	56.619	13.145	1	106.7	C
ATOM	2533	C	LEU	B	267	-77.159	57.866	14.079	1	106.89	C
ATOM	2534	O	LEU	B	267	-77.321	59.021	13.667	1	111.01	O
ATOM	2535	N	THR	B	268	-78.026	57.238	14.872	1	102.36	N
ATOM	2536	CA	THR	B	268	-79.225	57.891	15.388	1	102.42	C
ATOM	2537	CB	THR	B	268	-80.399	56.909	15.471	1	106.46	C
ATOM	2538	OG1	THR	B	268	-79.936	55.642	15.968	1	110.67	O
ATOM	2539	CG2	THR	B	268	-81.029	56.731	14.095	1	106.26	C
ATOM	2540	C	THR	B	268	-78.944	58.477	16.769	1	99.19	C
ATOM	2541	O	THR	B	268	-78.451	57.779	17.655	1	102.74	O
ATOM	2542	N	CYS	B	269	-79.258	59.761	16.937	1	99.52	N
ATOM	2543	CA	CYS	B	269	-78.993	60.466	18.181	1	103.36	C
ATOM	2544	CB	CYS	B	269	-79.033	61.969	17.987	1	109.27	C
ATOM	2545	SG	CYS	B	269	-78.296	62.823	19.391	1	123.74	S
ATOM	2546	C	CYS	B	269	-80.023	60.119	19.221	1	106.69	C
ATOM	2547	O	CYS	B	269	-81.169	59.82	18.886	1	119.9	O
ATOM	2548	N	SER	B	270	-79.617	60.201	20.484	1	104.83	N
ATOM	2549	CA	SER	B	270	-80.502	59.894	21.602	1	102.55	C

ATOM	2550	CB	SER	B	270	-79.689	59.749	22.88	1	102.45	C
ATOM	2551	OG	SER	B	270	-79.2	61.011	23.282	1	109.91	O
ATOM	2552	C	SER	B	270	-81.553	60.987	21.789	1	99.68	C
ATOM	2553	O	SER	B	270	-82.729	60.706	22.035	1	93.59	O
ATOM	2554	N	GLY	B	271	-81.107	62.236	21.701	1	100.49	N
ATOM	2555	CA	GLY	B	271	-81.99	63.382	21.865	1	102.87	C
ATOM	2556	C	GLY	B	271	-82.435	63.61	23.295	1	101.67	C
ATOM	2557	O	GLY	B	271	-83.239	64.505	23.559	1	104.55	O
ATOM	2558	N	SER	B	272	-81.899	62.822	24.223	1	97.61	N
ATOM	2559	CA	SER	B	272	-82.268	62.918	25.615	1	101.53	C
ATOM	2560	CB	SER	B	272	-81.518	61.853	26.408	1	110.25	C
ATOM	2561	OG	SER	B	272	-80.12	62.042	26.278	1	107.34	O
ATOM	2562	C	SER	B	272	-81.857	64.277	26.146	1	95.97	C
ATOM	2563	O	SER	B	272	-80.778	64.749	25.814	1	90.26	O
ATOM	2564	N	ASP	B	273	-82.693	64.893	26.979	1	94.04	N
ATOM	2565	CA	ASP	B	273	-82.268	66.087	27.723	1	97.89	C
ATOM	2566	CB	ASP	B	273	-83.302	66.506	28.79	1	107.31	C
ATOM	2567	CG	ASP	B	273	-84.337	67.534	28.268	1	117.22	C
ATOM	2568	OD1	ASP	B	273	-85.143	67.21	27.353	1	114.37	O
ATOM	2569	OD2	ASP	B	273	-84.359	68.667	28.813	1	119.2	O
ATOM	2570	C	ASP	B	273	-80.885	65.862	28.364	1	92.13	C
ATOM	2571	O	ASP	B	273	-80.056	66.765	28.388	1	89.38	O
ATOM	2572	N	ASP	B	274	-80.62	64.654	28.849	1	90.58	N
ATOM	2573	CA	ASP	B	274	-79.292	64.334	29.357	1	94.52	C
ATOM	2574	CB	ASP	B	274	-79.249	62.888	29.861	1	102.16	C
ATOM	2575	CG	ASP	B	274	-77.94	62.544	30.557	1	111.05	C
ATOM	2576	OD1	ASP	B	274	-77.393	63.416	31.269	1	118.31	O
ATOM	2577	OD2	ASP	B	274	-77.462	61.396	30.397	1	115.35	O
ATOM	2578	C	ASP	B	274	-78.203	64.586	28.298	1	94.71	C
ATOM	2579	O	ASP	B	274	-77.156	65.136	28.613	1	98.57	O
ATOM	2580	N	CYS	B	275	-78.463	64.184	27.054	1	98.9	N
ATOM	2581	CA	CYS	B	275	-77.569	64.461	25.907	1	95.1	C
ATOM	2582	CB	CYS	B	275	-78.111	63.816	24.609	1	105.95	C
ATOM	2583	SG	CYS	B	275	-77.565	64.528	23.027	1	110.38	S
ATOM	2584	C	CYS	B	275	-77.338	65.946	25.675	1	82.62	C
ATOM	2585	O	CYS	B	275	-76.207	66.364	25.497	1	70.8	O
ATOM	2586	N	LYS	B	276	-78.408	66.732	25.675	1	79.93	N
ATOM	2587	CA	LYS	B	276	-78.302	68.17	25.425	1	82.67	C
ATOM	2588	CB	LYS	B	276	-79.618	68.888	25.709	1	83.53	C
ATOM	2589	CG	LYS	B	276	-80.668	68.642	24.652	1	86.45	C
ATOM	2590	CD	LYS	B	276	-81.97	69.322	24.999	1	90.66	C
ATOM	2591	CE	LYS	B	276	-83.081	68.814	24.1	1	102.4	C
ATOM	2592	NZ	LYS	B	276	-84.421	69.24	24.584	1	112.22	N
ATOM	2593	C	LYS	B	276	-77.196	68.794	26.252	1	86.89	C

ATOM	2594	O	LYS	B	276	-76.275	69.375	25.694	1	98.18	O
ATOM	2595	N	ALA	B	277	-77.274	68.633	27.571	1	85.69	N
ATOM	2596	CA	ALA	B	277	-76.231	69.112	28.491	1	86.34	C
ATOM	2597	CB	ALA	B	277	-76.634	68.835	29.928	1	93.15	C
ATOM	2598	C	ALA	B	277	-74.847	68.516	28.223	1	80.84	C
ATOM	2599	O	ALA	B	277	-73.836	69.184	28.425	1	79.37	O
ATOM	2600	N	ALA	B	278	-74.806	67.265	27.777	1	81.85	N
ATOM	2601	CA	ALA	B	278	-73.549	66.642	27.337	1	91.51	C
ATOM	2602	CB	ALA	B	278	-73.776	65.208	26.845	1	99.51	C
ATOM	2603	C	ALA	B	278	-72.85	67.465	26.26	1	85.78	C
ATOM	2604	O	ALA	B	278	-71.66	67.738	26.375	1	76.84	O
ATOM	2605	N	TYR	B	279	-73.614	67.848	25.233	1	92.51	N
ATOM	2606	CA	TYR	B	279	-73.16	68.759	24.17	1	97.01	C
ATOM	2607	CB	TYR	B	279	-74.289	69.041	23.158	1	99.65	C
ATOM	2608	CG	TYR	B	279	-73.848	69.96	22.035	1	110.55	C
ATOM	2609	CD1	TYR	B	279	-73.04	69.479	20.997	1	112.81	C
ATOM	2610	CE1	TYR	B	279	-72.602	70.313	19.972	1	108.89	C
ATOM	2611	CZ	TYR	B	279	-72.964	71.652	19.971	1	107.86	C
ATOM	2612	OH	TYR	B	279	-72.518	72.456	18.942	1	99.79	O
ATOM	2613	CE2	TYR	B	279	-73.76	72.163	20.998	1	109.16	C
ATOM	2614	CD2	TYR	B	279	-74.191	71.322	22.027	1	108.74	C
ATOM	2615	C	TYR	B	279	-72.667	70.099	24.726	1	94.71	C
ATOM	2616	O	TYR	B	279	-71.601	70.599	24.351	1	90.6	O
ATOM	2617	N	ILE	B	280	-73.447	70.682	25.626	1	87.1	N
ATOM	2618	CA	ILE	B	280	-73.109	71.993	26.146	1	81.02	C
ATOM	2619	CB	ILE	B	280	-74.252	72.626	26.968	1	77.62	C
ATOM	2620	CG1	ILE	B	280	-75.598	72.435	26.247	1	75.67	C
ATOM	2621	CD1	ILE	B	280	-76.689	73.449	26.534	1	74.71	C
ATOM	2622	CG2	ILE	B	280	-73.962	74.109	27.211	1	81.49	C
ATOM	2623	C	ILE	B	280	-71.789	71.935	26.935	1	83.7	C
ATOM	2624	O	ILE	B	280	-71.047	72.913	26.945	1	87.35	O
ATOM	2625	N	ASP	B	281	-71.459	70.796	27.544	1	84.54	N
ATOM	2626	CA	ASP	B	281	-70.172	70.681	28.236	1	95.34	C
ATOM	2627	CB	ASP	B	281	-70.098	69.406	29.095	1	102.7	C
ATOM	2628	CG	ASP	B	281	-69.284	69.608	30.378	1	110.07	C
ATOM	2629	OD1	ASP	B	281	-69.617	70.526	31.161	1	117.2	O
ATOM	2630	OD2	ASP	B	281	-68.32	68.85	30.614	1	110.18	O
ATOM	2631	C	ASP	B	281	-68.956	70.769	27.284	1	100.81	C
ATOM	2632	O	ASP	B	281	-67.873	71.186	27.722	1	107.97	O
ATOM	2633	N	ILE	B	282	-69.141	70.4	26.006	1	98.85	N
ATOM	2634	CA	ILE	B	282	-68.066	70.463	24.987	1	98.26	C
ATOM	2635	CB	ILE	B	282	-68.155	69.343	23.912	1	105.3	C
ATOM	2636	CG1	ILE	B	282	-69.453	69.399	23.086	1	103.93	C
ATOM	2637	CD1	ILE	B	282	-69.433	68.585	21.813	1	103.53	C

ATOM	2638	CG2	ILE	B	282	-67.995	67.986	24.579	1	112.99	C
ATOM	2639	C	ILE	B	282	-67.891	71.815	24.286	1	96.97	C
ATOM	2640	O	ILE	B	282	-66.834	72.049	23.697	1	100.1	O
ATOM	2641	N	LEU	B	283	-68.899	72.692	24.331	1	91.03	N
ATOM	2642	CA	LEU	B	283	-68.695	74.112	23.963	1	83.18	C
ATOM	2643	CB	LEU	B	283	-69.962	74.933	24.135	1	78.99	C
ATOM	2644	CG	LEU	B	283	-71.176	74.567	23.313	1	78.33	C
ATOM	2645	CD1	LEU	B	283	-72.289	75.551	23.631	1	77.63	C
ATOM	2646	CD2	LEU	B	283	-70.829	74.595	21.844	1	80.01	C
ATOM	2647	C	LEU	B	283	-67.632	74.748	24.85	1	82.14	C
ATOM	2648	O	LEU	B	283	-67.622	74.55	26.067	1	88.6	O
ATOM	2649	N	GLY	B	284	-66.745	75.517	24.24	1	79.98	N
ATOM	2650	CA	GLY	B	284	-65.565	75.993	24.928	1	83.07	C
ATOM	2651	C	GLY	B	284	-64.403	75.015	24.869	1	83.22	C
ATOM	2652	O	GLY	B	284	-63.309	75.328	25.335	1	89.1	O
ATOM	2653	N	THR	B	285	-64.611	73.827	24.318	1	84.16	N
ATOM	2654	CA	THR	B	285	-63.479	73.005	23.945	1	93.93	C
ATOM	2655	CB	THR	B	285	-63.651	71.509	24.319	1	99.16	C
ATOM	2656	OG1	THR	B	285	-64.499	70.838	23.384	1	100.24	O
ATOM	2657	CG2	THR	B	285	-64.231	71.37	25.707	1	105.14	C
ATOM	2658	C	THR	B	285	-63.226	73.181	22.452	1	97.91	C
ATOM	2659	O	THR	B	285	-64.045	73.765	21.696	1	82.12	O
ATOM	2660	N	VAL	B	286	-62.072	72.655	22.05	1	103.33	N
ATOM	2661	CA	VAL	B	286	-61.636	72.656	20.66	1	104.61	C
ATOM	2662	CB	VAL	B	286	-60.249	71.978	20.515	1	104.61	C
ATOM	2663	CG1	VAL	B	286	-60.359	70.46	20.603	1	106.64	C
ATOM	2664	CG2	VAL	B	286	-59.574	72.416	19.226	1	106.54	C
ATOM	2665	C	VAL	B	286	-62.69	72.012	19.747	1	97.85	C
ATOM	2666	O	VAL	B	286	-62.795	72.366	18.588	1	112.31	O
ATOM	2667	N	LEU	B	287	-63.487	71.101	20.296	1	92.78	N
ATOM	2668	CA	LEU	B	287	-64.63	70.504	19.595	1	95.11	C
ATOM	2669	CB	LEU	B	287	-65.319	69.453	20.493	1	101.91	C
ATOM	2670	CG	LEU	B	287	-64.521	68.242	21.015	1	106.18	C
ATOM	2671	CD1	LEU	B	287	-65.439	67.316	21.801	1	102.38	C
ATOM	2672	CD2	LEU	B	287	-63.798	67.485	19.897	1	105.73	C
ATOM	2673	C	LEU	B	287	-65.7	71.496	19.103	1	88.3	C
ATOM	2674	O	LEU	B	287	-66.554	71.125	18.28	1	74.86	O
ATOM	2675	N	GLN	B	288	-65.691	72.725	19.618	1	89.04	N
ATOM	2676	CA	GLN	B	288	-66.638	73.735	19.142	1	103.83	C
ATOM	2677	CB	GLN	B	288	-66.721	74.909	20.11	1	104.73	C
ATOM	2678	CG	GLN	B	288	-67.98	75.731	19.879	1	106.03	C
ATOM	2679	CD	GLN	B	288	-68.022	77.001	20.685	1	110.45	C
ATOM	2680	OE1	GLN	B	288	-67.102	77.302	21.455	1	121.21	O
ATOM	2681	NE2	GLN	B	288	-69.094	77.773	20.501	1	108.61	N

ATOM	2682	C	GLN	B	288	-66.301	74.252	17.735	1	111.68	C
ATOM	2683	O	GLN	B	288	-67.199	74.683	16.985	1	110.09	O
ATOM	2684	N	VAL	B	289	-65.006	74.208	17.409	1	112.22	N
ATOM	2685	CA	VAL	B	289	-64.465	74.624	16.115	1	110.16	C
ATOM	2686	CB	VAL	B	289	-62.941	74.326	16.039	1	108.84	C
ATOM	2687	CG1	VAL	B	289	-62.401	74.482	14.609	1	118.06	C
ATOM	2688	CG2	VAL	B	289	-62.157	75.187	17.032	1	101.24	C
ATOM	2689	C	VAL	B	289	-65.136	73.84	14.994	1	120.13	C
ATOM	2690	O	VAL	B	289	-65.024	72.609	14.983	1	137.11	O
ATOM	2691	N	GLN	B	290	-65.809	74.528	14.058	1	119.96	N
ATOM	2692	CA	GLN	B	290	-66.332	73.849	12.864	1	121.39	C
ATOM	2693	CB	GLN	B	290	-67.291	74.714	12.022	1	124.15	C
ATOM	2694	CG	GLN	B	290	-67.924	73.925	10.856	1	128.34	C
ATOM	2695	CD	GLN	B	290	-69.173	74.555	10.224	1	129.11	C
ATOM	2696	OE1	GLN	B	290	-69.854	75.39	10.824	1	130.01	O
ATOM	2697	NE2	GLN	B	290	-69.487	74.13	9.001	1	128.75	N
ATOM	2698	C	GLN	B	290	-65.153	73.34	12.02	1	124.67	C
ATOM	2699	O	GLN	B	290	-64.108	73.998	11.912	1	120.84	O
ATOM	2700	N	CYS	B	291	-65.341	72.143	11.47	1	118.79	N
ATOM	2701	CA	CYS	B	291	-64.307	71.402	10.77	1	119.89	C
ATOM	2702	CB	CYS	B	291	-63.707	70.309	11.665	1	125.33	C
ATOM	2703	SG	CYS	B	291	-64.9	69.171	12.425	1	140.3	S
ATOM	2704	C	CYS	B	291	-64.966	70.747	9.588	1	125.11	C
ATOM	2705	O	CYS	B	291	-66.198	70.6	9.577	1	115.52	O
ATOM	2706	N	THR	B	292	-64.133	70.329	8.627	1	132.33	N
ATOM	2707	CA	THR	B	292	-64.581	69.669	7.39	1	120.63	C
ATOM	2708	CB	THR	B	292	-64.627	70.657	6.203	1	116.82	C
ATOM	2709	OG1	THR	B	292	-65.335	70.058	5.106	1	110.57	O
ATOM	2710	CG2	THR	B	292	-63.207	71.088	5.782	1	114.92	C
ATOM	2711	C	THR	B	292	-63.711	68.457	7.041	1	114.13	C
ATOM	2712	O	THR	B	292	-62.681	68.213	7.686	1	95.55	O
ATOM	2713	N	CYS	B	293	-64.144	67.712	6.018	1	117.55	N
ATOM	2714	CA	CYS	B	293	-63.493	66.458	5.616	1	124.97	C
ATOM	2715	CB	CYS	B	293	-64.467	65.31	5.82	1	129.56	C
ATOM	2716	SG	CYS	B	293	-64.941	65.155	7.557	1	146.97	S
ATOM	2717	C	CYS	B	293	-62.889	66.425	4.203	1	131.49	C
ATOM	2718	O	CYS	B	293	-62.237	65.45	3.835	1	134.9	O
ATOM	2719	N	ARG	B	294	-63.136	67.458	3.4	1	134.56	N
ATOM	2720	CA	ARG	B	294	-62.187	67.853	2.332	1	131.34	C
ATOM	2721	CB	ARG	B	294	-62.705	69.065	1.519	1	132.77	C
ATOM	2722	CG	ARG	B	294	-63.699	70.001	2.223	1	139.58	C
ATOM	2723	CD	ARG	B	294	-63.696	71.407	1.647	1	150.8	C
ATOM	2724	NE	ARG	B	294	-62.437	72.09	1.95	1	159.43	N
ATOM	2725	CZ	ARG	B	294	-61.861	73.035	1.202	1	172.2	C

ATOM	2726	NH1	ARG	B	294	-60.7	73.561	1.6	1	175.19	N
ATOM	2727	NH2	ARG	B	294	-62.415	73.466	0.064	1	175.7	N
ATOM	2728	C	ARG	B	294	-60.797	68.136	2.972	1	123.13	C
ATOM	2729	O	ARG	B	294	-60.733	68.844	3.962	1	121.25	O
ATOM	2730	N	THR	B	295	-59.717	67.571	2.411	1	121.07	N
ATOM	2731	CA	THR	B	295	-58.342	67.479	3.026	1	120.28	C
ATOM	2732	CB	THR	B	295	-58.109	68.313	4.32	1	107.12	C
ATOM	2733	OG1	THR	B	295	-58.456	69.676	4.091	1	107.71	O
ATOM	2734	CG2	THR	B	295	-56.622	68.257	4.79	1	101.34	C
ATOM	2735	C	THR	B	295	-57.987	66.039	3.399	1	130.51	C
ATOM	2736	O	THR	B	295	-56.821	65.64	3.377	1	136.6	O
ATOM	2737	N	ILE	B	296	-59.002	65.273	3.773	1	137.73	N
ATOM	2738	CA	ILE	B	296	-58.812	63.941	4.318	1	130.36	C
ATOM	2739	CB	ILE	B	296	-60.132	63.448	4.958	1	131.79	C
ATOM	2740	CG1	ILE	B	296	-60.495	64.313	6.176	1	132.83	C
ATOM	2741	CD1	ILE	B	296	-59.481	64.289	7.307	1	131.09	C
ATOM	2742	CG2	ILE	B	296	-60.047	62.002	5.374	1	133.96	C
ATOM	2743	C	ILE	B	296	-58.378	63.037	3.183	1	118.72	C
ATOM	2744	O	ILE	B	296	-58.686	63.332	2.029	1	116.25	O
ATOM	2745	N	THR	B	297	-57.663	61.958	3.515	1	111.64	N
ATOM	2746	CA	THR	B	297	-57.268	60.934	2.53	1	117.35	C
ATOM	2747	CB	THR	B	297	-56.157	59.981	3.072	1	123.74	C
ATOM	2748	OG1	THR	B	297	-56.73	58.977	3.923	1	128.96	O
ATOM	2749	CG2	THR	B	297	-55.046	60.753	3.825	1	122.1	C
ATOM	2750	C	THR	B	297	-58.517	60.17	1.999	1	114.64	C
ATOM	2751	O	THR	B	297	-59.528	60.798	1.679	1	96.9	O
ATOM	2752	N	GLN	B	298	-58.454	58.844	1.862	1	126.02	N
ATOM	2753	CA	GLN	B	298	-59.612	58.079	1.374	1	132.13	C
ATOM	2754	CB	GLN	B	298	-59.311	57.41	0.03	1	143.48	C
ATOM	2755	CG	GLN	B	298	-59.408	58.357	-1.162	1	150.47	C
ATOM	2756	CD	GLN	B	298	-60.798	58.957	-1.358	1	155.47	C
ATOM	2757	OE1	GLN	B	298	-61.795	58.463	-0.819	1	149.64	O
ATOM	2758	NE2	GLN	B	298	-60.866	60.035	-2.135	1	166.54	N
ATOM	2759	C	GLN	B	298	-60.087	57.063	2.376	1	120.94	C
ATOM	2760	O	GLN	B	298	-61.285	56.997	2.66	1	112.49	O
ATOM	2761	N	SER	B	299	-59.158	56.27	2.9	1	119.56	N
ATOM	2762	CA	SER	B	299	-59.426	55.453	4.083	1	130.59	C
ATOM	2763	CB	SER	B	299	-58.116	54.87	4.64	1	129.77	C
ATOM	2764	OG	SER	B	299	-57.059	55.818	4.577	1	127.52	O
ATOM	2765	C	SER	B	299	-60.123	56.331	5.131	1	130.53	C
ATOM	2766	O	SER	B	299	-61.281	56.092	5.513	1	128.15	O
ATOM	2767	N	GLU	B	300	-59.422	57.391	5.515	1	124.22	N
ATOM	2768	CA	GLU	B	300	-59.891	58.338	6.519	1	114.51	C
ATOM	2769	CB	GLU	B	300	-58.826	59.419	6.746	1	113.46	C

ATOM	2770	CG	GLU	B	300	-57.618	59.032	7.587	1	118.15	C
ATOM	2771	CD	GLU	B	300	-56.713	60.225	7.89	1	125.24	C
ATOM	2772	OE1	GLU	B	300	-56.818	61.267	7.199	1	128.31	O
ATOM	2773	OE2	GLU	B	300	-55.886	60.128	8.825	1	135.53	O
ATOM	2774	C	GLU	B	300	-61.225	59.024	6.192	1	107.78	C
ATOM	2775	O	GLU	B	300	-61.934	59.429	7.1	1	109.64	O
ATOM	2776	N	GLU	B	301	-61.558	59.172	4.913	1	111.7	N
ATOM	2777	CA	GLU	B	301	-62.69	60.016	4.503	1	121.7	C
ATOM	2778	CB	GLU	B	301	-62.741	60.162	2.966	1	138.03	C
ATOM	2779	CG	GLU	B	301	-63.538	61.372	2.454	1	147.17	C
ATOM	2780	CD	GLU	B	301	-62.838	62.165	1.348	1	154.32	C
ATOM	2781	OE1	GLU	B	301	-62.117	61.558	0.523	1	156.41	O
ATOM	2782	OE2	GLU	B	301	-63.018	63.408	1.297	1	150.33	O
ATOM	2783	C	GLU	B	301	-64.034	59.545	5.055	1	119.18	C
ATOM	2784	O	GLU	B	301	-64.92	60.373	5.289	1	106.83	O
ATOM	2785	N	SER	B	302	-64.173	58.234	5.279	1	121.18	N
ATOM	2786	CA	SER	B	302	-65.395	57.671	5.871	1	122.07	C
ATOM	2787	CB	SER	B	302	-65.458	56.153	5.655	1	123.1	C
ATOM	2788	OG	SER	B	302	-66.799	55.699	5.731	1	127.42	O
ATOM	2789	C	SER	B	302	-65.494	58.007	7.368	1	119.52	C
ATOM	2790	O	SER	B	302	-66.554	58.414	7.85	1	111.54	O
ATOM	2791	N	LEU	B	303	-64.374	57.85	8.081	1	117.66	N
ATOM	2792	CA	LEU	B	303	-64.277	58.15	9.522	1	105.73	C
ATOM	2793	CB	LEU	B	303	-62.891	57.78	10.073	1	103.57	C
ATOM	2794	CG	LEU	B	303	-62.677	57.752	11.59	1	102.92	C
ATOM	2795	CD1	LEU	B	303	-63.447	56.601	12.211	1	105.29	C
ATOM	2796	CD2	LEU	B	303	-61.2	57.62	11.936	1	105.64	C
ATOM	2797	C	LEU	B	303	-64.564	59.611	9.79	1	101.61	C
ATOM	2798	O	LEU	B	303	-65.485	59.916	10.537	1	105.88	O
ATOM	2799	N	CYS	B	304	-63.8	60.506	9.159	1	102.15	N
ATOM	2800	CA	CYS	B	304	-64.051	61.951	9.258	1	106.62	C
ATOM	2801	CB	CYS	B	304	-63.235	62.74	8.234	1	109.36	C
ATOM	2802	SG	CYS	B	304	-63.258	64.522	8.551	1	124.46	S
ATOM	2803	C	CYS	B	304	-65.536	62.28	9.07	1	106.71	C
ATOM	2804	O	CYS	B	304	-66.157	62.891	9.942	1	107.85	O
ATOM	2805	N	LYS	B	305	-66.099	61.857	7.939	1	105.55	N
ATOM	2806	CA	LYS	B	305	-67.5	62.139	7.615	1	104.23	C
ATOM	2807	CB	LYS	B	305	-67.951	61.381	6.36	1	114.92	C
ATOM	2808	CG	LYS	B	305	-67.678	62.084	5.038	1	115.18	C
ATOM	2809	CD	LYS	B	305	-68.278	61.274	3.892	1	127.66	C
ATOM	2810	CE	LYS	B	305	-67.456	61.37	2.613	1	144.57	C
ATOM	2811	NZ	LYS	B	305	-67.85	60.352	1.593	1	147.22	N
ATOM	2812	C	LYS	B	305	-68.429	61.802	8.772	1	93.91	C
ATOM	2813	O	LYS	B	305	-69.402	62.516	9	1	89.08	O

ATOM	2814	N	ILE	B	306	-68.116	60.726	9.495	1	94.08	N
ATOM	2815	CA	ILE	B	306	-68.908	60.299	10.665	1	100.08	C
ATOM	2816	CB	ILE	B	306	-68.601	58.84	11.078	1	104.89	C
ATOM	2817	CG1	ILE	B	306	-68.927	57.877	9.922	1	108.53	C
ATOM	2818	CD1	ILE	B	306	-68.103	56.606	9.922	1	106.86	C
ATOM	2819	CG2	ILE	B	306	-69.397	58.443	12.321	1	101.05	C
ATOM	2820	C	ILE	B	306	-68.745	61.231	11.878	1	90.21	C
ATOM	2821	O	ILE	B	306	-69.734	61.847	12.286	1	80.6	O
ATOM	2822	N	PHE	B	307	-67.536	61.342	12.45	1	81.01	N
ATOM	2823	CA	PHE	B	307	-67.305	62.294	13.56	1	82.52	C
ATOM	2824	CB	PHE	B	307	-65.809	62.553	13.834	1	78.68	C
ATOM	2825	CG	PHE	B	307	-65.069	61.394	14.46	1	82.91	C
ATOM	2826	CD1	PHE	B	307	-65.6	60.659	15.517	1	90.8	C
ATOM	2827	CE1	PHE	B	307	-64.888	59.601	16.086	1	92.54	C
ATOM	2828	CZ	PHE	B	307	-63.621	59.278	15.613	1	91.45	C
ATOM	2829	CE2	PHE	B	307	-63.073	60.012	14.575	1	86.77	C
ATOM	2830	CD2	PHE	B	307	-63.797	61.064	14.016	1	86.24	C
ATOM	2831	C	PHE	B	307	-67.998	63.632	13.256	1	84.68	C
ATOM	2832	O	PHE	B	307	-68.777	64.146	14.068	1	77.63	O
ATOM	2833	N	GLN	B	308	-67.727	64.15	12.059	1	87.69	N
ATOM	2834	CA	GLN	B	308	-68.372	65.347	11.522	1	86.92	C
ATOM	2835	CB	GLN	B	308	-67.969	65.52	10.037	1	99.65	C
ATOM	2836	CG	GLN	B	308	-68.276	66.853	9.351	1	108.88	C
ATOM	2837	CD	GLN	B	308	-68.089	66.776	7.83	1	119.37	C
ATOM	2838	OE1	GLN	B	308	-68.95	66.265	7.105	1	134.74	O
ATOM	2839	NE2	GLN	B	308	-66.96	67.271	7.345	1	118.14	N
ATOM	2840	C	GLN	B	308	-69.904	65.299	11.71	1	77.67	C
ATOM	2841	O	GLN	B	308	-70.486	66.294	12.112	1	72.23	O
ATOM	2842	N	HIS	B	309	-70.557	64.164	11.456	1	74.61	N
ATOM	2843	CA	HIS	B	309	-72.008	64.05	11.745	1	80.47	C
ATOM	2844	CB	HIS	B	309	-72.636	62.737	11.25	1	79.7	C
ATOM	2845	CG	HIS	B	309	-74.12	62.687	11.458	1	78.12	C
ATOM	2846	ND1	HIS	B	309	-74.969	63.654	10.96	1	80.51	N
ATOM	2847	CE1	HIS	B	309	-76.21	63.372	11.308	1	81.45	C
ATOM	2848	NE2	HIS	B	309	-76.195	62.273	12.041	1	82.76	N
ATOM	2849	CD2	HIS	B	309	-74.898	61.83	12.155	1	80.83	C
ATOM	2850	C	HIS	B	309	-72.371	64.194	13.222	1	82.72	C
ATOM	2851	O	HIS	B	309	-73.395	64.785	13.562	1	69.46	O
ATOM	2852	N	MET	B	310	-71.542	63.615	14.085	1	92.29	N
ATOM	2853	CA	MET	B	310	-71.819	63.576	15.523	1	93.39	C
ATOM	2854	CB	MET	B	310	-70.981	62.488	16.196	1	96.29	C
ATOM	2855	CG	MET	B	310	-71.432	61.088	15.813	1	101.2	C
ATOM	2856	SD	MET	B	310	-70.736	59.761	16.811	1	110.4	S
ATOM	2857	CE	MET	B	310	-68.979	60.11	16.845	1	93.05	C

ATOM	2858	C	MET	B	310	-71.573	64.928	16.167	1	88	C
ATOM	2859	O	MET	B	310	-72.49	65.534	16.729	1	87.55	O
ATOM	2860	N	LEU	B	311	-70.333	65.393	16.056	1	79.48	N
ATOM	2861	CA	LEU	B	311	-69.945	66.731	16.474	1	76.19	C
ATOM	2862	CB	LEU	B	311	-68.53	67.029	15.985	1	75.54	C
ATOM	2863	CG	LEU	B	311	-67.464	66.514	16.939	1	77.57	C
ATOM	2864	CD1	LEU	B	311	-66.213	66.008	16.232	1	77.55	C
ATOM	2865	CD2	LEU	B	311	-67.147	67.636	17.912	1	80.31	C
ATOM	2866	C	LEU	B	311	-70.884	67.822	15.977	1	81.15	C
ATOM	2867	O	LEU	B	311	-71.127	68.784	16.698	1	84.54	O
ATOM	2868	N	HIS	B	312	-71.399	67.696	14.753	1	90.06	N
ATOM	2869	CA	HIS	B	312	-72.176	68.781	14.173	1	98.78	C
ATOM	2870	CB	HIS	B	312	-72.377	68.631	12.66	1	103.57	C
ATOM	2871	CG	HIS	B	312	-73.195	69.733	12.062	1	109.73	C
ATOM	2872	ND1	HIS	B	312	-72.707	71.011	11.89	1	108.09	N
ATOM	2873	CE1	HIS	B	312	-73.653	71.774	11.369	1	114.13	C
ATOM	2874	NE2	HIS	B	312	-74.741	71.039	11.207	1	115.58	N
ATOM	2875	CD2	HIS	B	312	-74.482	69.76	11.636	1	113.5	C
ATOM	2876	C	HIS	B	312	-73.506	68.891	14.907	1	98.06	C
ATOM	2877	O	HIS	B	312	-74.224	67.905	15.073	1	85.11	O
ATOM	2878	N	ARG	B	313	-73.807	70.117	15.323	1	104.03	N
ATOM	2879	CA	ARG	B	313	-74.859	70.385	16.291	1	115.06	C
ATOM	2880	CB	ARG	B	313	-74.71	71.805	16.857	1	121.97	C
ATOM	2881	CG	ARG	B	313	-75.068	72.939	15.917	1	130.19	C
ATOM	2882	CD	ARG	B	313	-75.121	74.27	16.646	1	134.32	C
ATOM	2883	NE	ARG	B	313	-75.869	75.244	15.86	1	148.38	N
ATOM	2884	CZ	ARG	B	313	-77.198	75.252	15.703	1	165.15	C
ATOM	2885	NH1	ARG	B	313	-77.984	74.335	16.279	1	162.44	N
ATOM	2886	NH2	ARG	B	313	-77.755	76.194	14.951	1	183.2	N
ATOM	2887	C	ARG	B	313	-76.28	70.15	15.783	1	115.14	C
ATOM	2888	O	ARG	B	313	-77.168	69.817	16.57	1	135.26	O
ATOM	2889	N	LYS	B	314	-76.506	70.309	14.483	1	110.8	N
ATOM	2890	CA	LYS	B	314	-77.839	70.056	13.929	1	118.98	C
ATOM	2891	CB	LYS	B	314	-78.04	70.797	12.589	1	127.27	C
ATOM	2892	CG	LYS	B	314	-79.439	71.384	12.418	1	135.64	C
ATOM	2893	CD	LYS	B	314	-79.629	72.641	13.274	1	145.88	C
ATOM	2894	CE	LYS	B	314	-81.09	72.912	13.634	1	147.76	C
ATOM	2895	NZ	LYS	B	314	-81.235	73.898	14.749	1	139.9	N
ATOM	2896	C	LYS	B	314	-78.148	68.553	13.786	1	113.46	C
ATOM	2897	O	LYS	B	314	-79.27	68.197	13.408	1	112.13	O
ATOM	2898	N	SER	B	315	-77.173	67.688	14.101	1	102.89	N
ATOM	2899	CA	SER	B	315	-77.308	66.233	13.939	1	99.59	C
ATOM	2900	CB	SER	B	315	-75.937	65.579	13.997	1	92.32	C
ATOM	2901	OG	SER	B	315	-75.035	66.236	13.14	1	86.28	O

ATOM	2902	C	SER	B	315	-78.203	65.51	14.952	1	104.42	C
ATOM	2903	O	SER	B	315	-78.471	64.316	14.779	1	104.01	O
ATOM	2904	N	CYS	B	316	-78.625	66.199	16.012	1	109.81	N
ATOM	2905	CA	CYS	B	316	-79.586	65.649	16.97	1	118.86	C
ATOM	2906	CB	CYS	B	316	-78.961	65.619	18.366	1	127.22	C
ATOM	2907	SG	CYS	B	316	-77.534	64.51	18.538	1	141.56	S
ATOM	2908	C	CYS	B	316	-80.917	66.419	16.99	1	126.85	C
ATOM	2909	O	CYS	B	316	-81.983	65.807	16.911	1	133.71	O
ATOM	2910	N	PHE	B	317	-80.859	67.75	17.057	1	133.04	N
ATOM	2911	CA	PHE	B	317	-82.019	68.558	17.445	1	136.74	C
ATOM	2912	CB	PHE	B	317	-81.649	69.361	18.693	1	137.02	C
ATOM	2913	CG	PHE	B	317	-81.207	68.493	19.847	1	138.2	C
ATOM	2914	CD1	PHE	B	317	-82.147	67.791	20.61	1	132.38	C
ATOM	2915	CE1	PHE	B	317	-81.749	66.978	21.659	1	118.58	C
ATOM	2916	CZ	PHE	B	317	-80.402	66.839	21.951	1	115.83	C
ATOM	2917	CE2	PHE	B	317	-79.456	67.523	21.201	1	117.25	C
ATOM	2918	CD2	PHE	B	317	-79.856	68.343	20.153	1	125.59	C
ATOM	2919	C	PHE	B	317	-82.53	69.486	16.348	1	144.29	C
ATOM	2920	O	PHE	B	317	-81.739	70.161	15.697	1	151.25	O
ATOM	2921	N	ASN	B	318	-83.854	69.493	16.146	1	164.45	N
ATOM	2922	CA	ASN	B	318	-84.547	70.479	15.284	1	177.28	C
ATOM	2923	CB	ASN	B	318	-84.494	70.068	13.786	1	187.31	C
ATOM	2924	CG	ASN	B	318	-84.989	68.643	13.52	1	196.18	C
ATOM	2925	OD1	ASN	B	318	-85.628	68.014	14.364	1	219.47	O
ATOM	2926	ND2	ASN	B	318	-84.695	68.134	12.326	1	194.17	N
ATOM	2927	C	ASN	B	318	-85.995	70.801	15.758	1	170.81	C
ATOM	2928	O	ASN	B	318	-86.211	71.282	16.882	1	156.67	O
ATOM	2929	OXT	ASN	B	318	-86.999	70.611	15.058	1	157.66	O
TER	2930		ASN	B	318						
ATOM	2931	N	GLN	C	1	-66.582	23.578	12.201	1	105.93	N
ATOM	2932	CA	GLN	C	1	-65.605	24.156	13.179	1	110.84	C
ATOM	2933	CB	GLN	C	1	-64.352	23.271	13.312	1	119.83	C
ATOM	2934	CG	GLN	C	1	-63.258	23.464	12.257	1	141.01	C
ATOM	2935	CD	GLN	C	1	-63.721	23.211	10.826	1	165.98	C
ATOM	2936	OE1	GLN	C	1	-64.697	22.491	10.589	1	180.6	O
ATOM	2937	NE2	GLN	C	1	-63.009	23.795	9.858	1	175.43	N
ATOM	2938	C	GLN	C	1	-65.205	25.59	12.818	1	115.84	C
ATOM	2939	O	GLN	C	1	-65.598	26.113	11.766	1	118.78	O
ATOM	2940	N	VAL	C	2	-64.416	26.202	13.704	1	115.95	N
ATOM	2941	CA	VAL	C	2	-63.917	27.578	13.548	1	112	C
ATOM	2942	CB	VAL	C	2	-64.681	28.562	14.482	1	115.66	C
ATOM	2943	CG1	VAL	C	2	-64.351	30.021	14.162	1	107.64	C
ATOM	2944	CG2	VAL	C	2	-66.192	28.341	14.384	1	120.74	C
ATOM	2945	C	VAL	C	2	-62.42	27.598	13.851	1	101.12	C

ATOM	2946	O	VAL	C	2	-61.993	28.131	14.865	1	89.75	O
ATOM	2947	N	GLN	C	3	-61.629	27.004	12.962	1	104.41	N
ATOM	2948	CA	GLN	C	3	-60.178	26.865	13.19	1	110.04	C
ATOM	2949	CB	GLN	C	3	-59.585	25.745	12.328	1	121.98	C
ATOM	2950	CG	GLN	C	3	-59.695	24.365	12.942	1	126.33	C
ATOM	2951	CD	GLN	C	3	-59.236	23.281	11.989	1	132.13	C
ATOM	2952	OE1	GLN	C	3	-59.689	23.213	10.837	1	130.28	O
ATOM	2953	NE2	GLN	C	3	-58.335	22.42	12.463	1	133.23	N
ATOM	2954	C	GLN	C	3	-59.421	28.156	12.917	1	104.08	C
ATOM	2955	O	GLN	C	3	-59.953	29.088	12.321	1	102.39	O
ATOM	2956	N	LEU	C	4	-58.164	28.177	13.346	1	100.06	N
ATOM	2957	CA	LEU	C	4	-57.296	29.342	13.215	1	104.8	C
ATOM	2958	CB	LEU	C	4	-57.613	30.355	14.332	1	117.19	C
ATOM	2959	CG	LEU	C	4	-58.369	31.619	13.892	1	126.16	C
ATOM	2960	CD1	LEU	C	4	-59.396	32.067	14.921	1	130.57	C
ATOM	2961	CD2	LEU	C	4	-57.399	32.751	13.582	1	126	C
ATOM	2962	C	LEU	C	4	-55.849	28.883	13.275	1	107	C
ATOM	2963	O	LEU	C	4	-55.108	29.265	14.177	1	113.74	O
ATOM	2964	N	LYS	C	5	-55.448	28.061	12.305	1	113.34	N
ATOM	2965	CA	LYS	C	5	-54.173	27.334	12.405	1	121.77	C
ATOM	2966	CB	LYS	C	5	-54.235	26.009	11.64	1	137.02	C
ATOM	2967	CG	LYS	C	5	-53.263	24.964	12.186	1	148.12	C
ATOM	2968	CD	LYS	C	5	-52.947	23.872	11.169	1	152.41	C
ATOM	2969	CE	LYS	C	5	-51.697	23.08	11.538	1	150.05	C
ATOM	2970	NZ	LYS	C	5	-50.9	22.717	10.33	1	147.42	N
ATOM	2971	C	LYS	C	5	-52.948	28.149	11.959	1	112.03	C
ATOM	2972	O	LYS	C	5	-52.938	28.753	10.875	1	97.87	O
ATOM	2973	N	GLN	C	6	-51.921	28.134	12.811	1	107.36	N
ATOM	2974	CA	GLN	C	6	-50.684	28.889	12.599	1	110.79	C
ATOM	2975	CB	GLN	C	6	-50.169	29.464	13.913	1	113.42	C
ATOM	2976	CG	GLN	C	6	-51.104	30.475	14.535	1	110.12	C
ATOM	2977	CD	GLN	C	6	-50.67	30.916	15.919	1	111.9	C
ATOM	2978	OE1	GLN	C	6	-50.888	30.218	16.906	1	114.02	O
ATOM	2979	NE2	GLN	C	6	-50.065	32.09	16	1	114.57	N
ATOM	2980	C	GLN	C	6	-49.619	27.991	12.035	1	114.51	C
ATOM	2981	O	GLN	C	6	-49.634	26.792	12.28	1	121.34	O
ATOM	2982	N	SER	C	7	-48.677	28.589	11.312	1	118.14	N
ATOM	2983	CA	SER	C	7	-47.656	27.847	10.577	1	118.14	C
ATOM	2984	CB	SER	C	7	-48.026	27.785	9.083	1	125.89	C
ATOM	2985	OG	SER	C	7	-49.439	27.783	8.865	1	123.24	O
ATOM	2986	C	SER	C	7	-46.327	28.562	10.786	1	116.18	C
ATOM	2987	O	SER	C	7	-46.205	29.732	10.414	1	119.58	O
ATOM	2988	N	GLY	C	8	-45.347	27.873	11.378	1	114.37	N
ATOM	2989	CA	GLY	C	8	-44.092	28.514	11.836	1	122.92	C

ATOM	2990	C	GLY	C	8	-42.835	28.188	11.042	1	128.84	C
ATOM	2991	O	GLY	C	8	-42.824	27.233	10.258	1	134.48	O
ATOM	2992	N	THR	C	9	-41.784	28.993	11.242	1	131.18	N
ATOM	2993	CA	THR	C	9	-40.429	28.702	10.703	1	144.26	C
ATOM	2994	CB	THR	C	9	-39.818	29.875	9.894	1	138.67	C
ATOM	2995	OG1	THR	C	9	-39.212	30.821	10.785	1	148.39	O
ATOM	2996	CG2	THR	C	9	-40.867	30.562	9.017	1	131.19	C
ATOM	2997	C	THR	C	9	-39.456	28.319	11.832	1	145.58	C
ATOM	2998	O	THR	C	9	-38.645	27.4	11.674	1	159.12	O
ATOM	2999	N	GLU	C	10	-39.497	29.077	12.928	1	129.92	N
ATOM	3000	CA	GLU	C	10	-39.03	28.629	14.253	1	133.81	C
ATOM	3001	CB	GLU	C	10	-39.501	27.187	14.55	1	140.91	C
ATOM	3002	CG	GLU	C	10	-41.022	27.005	14.479	1	142.8	C
ATOM	3003	CD	GLU	C	10	-41.456	25.732	13.775	1	138.59	C
ATOM	3004	OE1	GLU	C	10	-40.808	24.689	13.976	1	148	O
ATOM	3005	OE2	GLU	C	10	-42.455	25.771	13.028	1	130.75	O
ATOM	3006	C	GLU	C	10	-37.534	28.787	14.588	1	135.09	C
ATOM	3007	O	GLU	C	10	-37.206	28.959	15.775	1	124.27	O
ATOM	3008	N	LEU	C	11	-36.641	28.718	13.587	1	142.92	N
ATOM	3009	CA	LEU	C	11	-35.208	29.077	13.775	1	137.08	C
ATOM	3010	CB	LEU	C	11	-34.289	27.847	13.812	1	127.99	C
ATOM	3011	CG	LEU	C	11	-32.818	28.023	14.282	1	127.01	C
ATOM	3012	CD1	LEU	C	11	-32.539	29.162	15.26	1	120.04	C
ATOM	3013	CD2	LEU	C	11	-32.302	26.733	14.902	1	132.75	C
ATOM	3014	C	LEU	C	11	-34.722	30.05	12.705	1	129.41	C
ATOM	3015	O	LEU	C	11	-34.781	29.753	11.511	1	125.05	O
ATOM	3016	N	VAL	C	12	-34.251	31.21	13.168	1	128.18	N
ATOM	3017	CA	VAL	C	12	-33.8	32.323	12.336	1	129.14	C
ATOM	3018	CB	VAL	C	12	-35.004	33.263	12.066	1	133.22	C
ATOM	3019	CG1	VAL	C	12	-34.583	34.667	11.655	1	140.34	C
ATOM	3020	CG2	VAL	C	12	-35.926	32.659	11.011	1	131.8	C
ATOM	3021	C	VAL	C	12	-32.627	33.027	13.06	1	131.38	C
ATOM	3022	O	VAL	C	12	-32.513	32.945	14.288	1	121.89	O
ATOM	3023	N	ARG	C	13	-31.758	33.703	12.307	1	133.95	N
ATOM	3024	CA	ARG	C	13	-30.506	34.234	12.873	1	140.24	C
ATOM	3025	CB	ARG	C	13	-29.32	33.911	11.945	1	160.68	C
ATOM	3026	CG	ARG	C	13	-29.29	34.621	10.595	1	172.39	C
ATOM	3027	CD	ARG	C	13	-28.187	34.036	9.723	1	176.63	C
ATOM	3028	NE	ARG	C	13	-27.856	34.885	8.578	1	186.18	N
ATOM	3029	CZ	ARG	C	13	-28.578	35.005	7.46	1	198.18	C
ATOM	3030	NH1	ARG	C	13	-29.725	34.343	7.294	1	199.94	N
ATOM	3031	NH2	ARG	C	13	-28.149	35.813	6.488	1	203.99	N
ATOM	3032	C	ARG	C	13	-30.522	35.738	13.262	1	130.05	C
ATOM	3033	O	ARG	C	13	-31.162	36.556	12.584	1	99.48	O

ATOM	3034	N	PRO	C	14	-29.806	36.1	14.36	1	138.64	N
ATOM	3035	CA	PRO	C	14	-29.676	37.482	14.842	1	143.65	C
ATOM	3036	CB	PRO	C	14	-28.389	37.424	15.676	1	140.97	C
ATOM	3037	CG	PRO	C	14	-28.408	36.058	16.268	1	136.82	C
ATOM	3038	CD	PRO	C	14	-29.104	35.165	15.271	1	141.15	C
ATOM	3039	C	PRO	C	14	-29.564	38.55	13.741	1	142.85	C
ATOM	3040	O	PRO	C	14	-28.639	38.505	12.932	1	150.85	O
ATOM	3041	N	GLY	C	15	-30.52	39.48	13.716	1	144.48	N
ATOM	3042	CA	GLY	C	15	-30.573	40.553	12.715	1	137.59	C
ATOM	3043	C	GLY	C	15	-31.5	40.31	11.528	1	123.51	C
ATOM	3044	O	GLY	C	15	-31.764	41.237	10.754	1	110.16	O
ATOM	3045	N	ALA	C	16	-32	39.081	11.381	1	114.35	N
ATOM	3046	CA	ALA	C	16	-32.846	38.714	10.238	1	120.75	C
ATOM	3047	CB	ALA	C	16	-32.833	37.199	10.055	1	121.23	C
ATOM	3048	C	ALA	C	16	-34.281	39.227	10.409	1	120.14	C
ATOM	3049	O	ALA	C	16	-34.567	39.945	11.367	1	127.16	O
ATOM	3050	N	SER	C	17	-35.157	38.887	9.457	1	117.48	N
ATOM	3051	CA	SER	C	17	-36.616	39.026	9.607	1	116.16	C
ATOM	3052	CB	SER	C	17	-37.201	39.783	8.407	1	110.35	C
ATOM	3053	OG	SER	C	17	-37.48	38.904	7.318	1	105.83	O
ATOM	3054	C	SER	C	17	-37.264	37.629	9.724	1	122.43	C
ATOM	3055	O	SER	C	17	-36.557	36.654	9.974	1	121.12	O
ATOM	3056	N	VAL	C	18	-38.597	37.559	9.576	1	125.82	N
ATOM	3057	CA	VAL	C	18	-39.352	36.32	9.207	1	116.34	C
ATOM	3058	CB	VAL	C	18	-38.988	35.069	10.054	1	115.51	C
ATOM	3059	CG1	VAL	C	18	-39.187	35.319	11.547	1	118.85	C
ATOM	3060	CG2	VAL	C	18	-39.763	33.841	9.585	1	113.62	C
ATOM	3061	C	VAL	C	18	-40.865	36.525	9.288	1	104.51	C
ATOM	3062	O	VAL	C	18	-41.359	37.099	10.248	1	101.11	O
ATOM	3063	N	LYS	C	19	-41.595	36.041	8.29	1	105.53	N
ATOM	3064	CA	LYS	C	19	-43.053	36.127	8.317	1	115.18	C
ATOM	3065	CB	LYS	C	19	-43.644	36.166	6.904	1	114.44	C
ATOM	3066	CG	LYS	C	19	-44.959	36.923	6.811	1	117.76	C
ATOM	3067	CD	LYS	C	19	-45.147	37.657	5.487	1	132.82	C
ATOM	3068	CE	LYS	C	19	-45.219	36.727	4.28	1	138.35	C
ATOM	3069	NZ	LYS	C	19	-46.127	37.246	3.215	1	138.76	N
ATOM	3070	C	LYS	C	19	-43.621	34.968	9.129	1	122.96	C
ATOM	3071	O	LYS	C	19	-42.915	34.003	9.425	1	123.39	O
ATOM	3072	N	LEU	C	20	-44.899	35.098	9.49	1	128.73	N
ATOM	3073	CA	LEU	C	20	-45.593	34.202	10.422	1	119.46	C
ATOM	3074	CB	LEU	C	20	-45.413	34.713	11.851	1	112.25	C
ATOM	3075	CG	LEU	C	20	-44.587	33.771	12.712	1	115.42	C
ATOM	3076	CD1	LEU	C	20	-43.927	34.51	13.87	1	115.72	C
ATOM	3077	CD2	LEU	C	20	-45.5	32.64	13.181	1	119.53	C

ATOM	3078	C	LEU	C	20	-47.074	34.118	10.077	1	110.98	C
ATOM	3079	O	LEU	C	20	-47.716	35.147	9.931	1	99.4	O
ATOM	3080	N	SER	C	21	-47.604	32.898	9.969	1	110.51	N
ATOM	3081	CA	SER	C	21	-48.921	32.662	9.365	1	118.76	C
ATOM	3082	CB	SER	C	21	-48.898	31.395	8.495	1	129.68	C
ATOM	3083	OG	SER	C	21	-48.085	31.55	7.343	1	134.09	O
ATOM	3084	C	SER	C	21	-50.006	32.51	10.414	1	113.68	C
ATOM	3085	O	SER	C	21	-49.71	32.234	11.576	1	123.57	O
ATOM	3086	N	CYS	C	22	-51.255	32.691	9.985	1	105.34	N
ATOM	3087	CA	CYS	C	22	-52.43	32.373	10.797	1	114.43	C
ATOM	3088	CB	CYS	C	22	-52.676	33.459	11.866	1	122.79	C
ATOM	3089	SG	CYS	C	22	-54.062	33.145	13.012	1	139.88	S
ATOM	3090	C	CYS	C	22	-53.653	32.148	9.88	1	121.75	C
ATOM	3091	O	CYS	C	22	-54.481	33.052	9.658	1	120.47	O
ATOM	3092	N	LYS	C	23	-53.735	30.926	9.34	1	121.07	N
ATOM	3093	CA	LYS	C	23	-54.806	30.531	8.412	1	111.65	C
ATOM	3094	CB	LYS	C	23	-54.445	29.246	7.661	1	121.52	C
ATOM	3095	CG	LYS	C	23	-53.268	29.355	6.701	1	131.32	C
ATOM	3096	CD	LYS	C	23	-53.026	28.061	5.921	1	134.68	C
ATOM	3097	CE	LYS	C	23	-54.227	27.617	5.087	1	137.48	C
ATOM	3098	NZ	LYS	C	23	-54.835	28.71	4.27	1	142.86	N
ATOM	3099	C	LYS	C	23	-56.098	30.283	9.158	1	94.47	C
ATOM	3100	O	LYS	C	23	-56.093	29.57	10.156	1	82.27	O
ATOM	3101	N	ALA	C	24	-57.198	30.823	8.634	1	92.67	N
ATOM	3102	CA	ALA	C	24	-58.506	30.784	9.301	1	99.67	C
ATOM	3103	CB	ALA	C	24	-58.873	32.187	9.72	1	99.51	C
ATOM	3104	C	ALA	C	24	-59.644	30.205	8.446	1	109.34	C
ATOM	3105	O	ALA	C	24	-59.953	30.748	7.375	1	116.3	O
ATOM	3106	N	SER	C	25	-60.268	29.125	8.932	1	113.07	N
ATOM	3107	CA	SER	C	25	-61.503	28.572	8.34	1	119.89	C
ATOM	3108	CB	SER	C	25	-61.384	27.053	8.195	1	123.59	C
ATOM	3109	OG	SER	C	25	-61.444	26.419	9.464	1	129.83	O
ATOM	3110	C	SER	C	25	-62.702	28.915	9.23	1	110.85	C
ATOM	3111	O	SER	C	25	-62.545	29.623	10.212	1	117.31	O
ATOM	3112	N	GLY	C	26	-63.896	28.438	8.877	1	103.39	N
ATOM	3113	CA	GLY	C	26	-65.065	28.49	9.771	1	96.8	C
ATOM	3114	C	GLY	C	26	-65.898	29.766	9.768	1	96.89	C
ATOM	3115	O	GLY	C	26	-67.122	29.716	9.817	1	92.79	O
ATOM	3116	N	TYR	C	27	-65.238	30.915	9.721	1	101.87	N
ATOM	3117	CA	TYR	C	27	-65.92	32.207	9.79	1	101.98	C
ATOM	3118	CB	TYR	C	27	-65.571	32.944	11.074	1	96.8	C
ATOM	3119	CG	TYR	C	27	-64.102	33.251	11.285	1	89.7	C
ATOM	3120	CD1	TYR	C	27	-63.247	32.288	11.789	1	90.61	C
ATOM	3121	CE1	TYR	C	27	-61.909	32.553	12.014	1	89.42	C

ATOM	3122	CZ	TYR	C	27	-61.417	33.806	11.769	1	88.86	C
ATOM	3123	OH	TYR	C	27	-60.092	34.035	12.021	1	90.27	O
ATOM	3124	CE2	TYR	C	27	-62.248	34.802	11.289	1	90.32	C
ATOM	3125	CD2	TYR	C	27	-63.585	34.518	11.044	1	89.28	C
ATOM	3126	C	TYR	C	27	-65.508	33.056	8.627	1	107.79	C
ATOM	3127	O	TYR	C	27	-64.391	32.913	8.115	1	121.85	O
ATOM	3128	N	THR	C	28	-66.393	33.964	8.231	1	104.71	N
ATOM	3129	CA	THR	C	28	-66.097	34.861	7.12	1	102.22	C
ATOM	3130	CB	THR	C	28	-67.354	35.645	6.636	1	97.2	C
ATOM	3131	OG1	THR	C	28	-67.787	36.583	7.621	1	88.16	O
ATOM	3132	CG2	THR	C	28	-68.514	34.692	6.325	1	95.5	C
ATOM	3133	C	THR	C	28	-64.916	35.753	7.565	1	98.09	C
ATOM	3134	O	THR	C	28	-65.105	36.848	8.09	1	92.03	O
ATOM	3135	N	PHE	C	29	-63.706	35.215	7.374	1	95.22	N
ATOM	3136	CA	PHE	C	29	-62.42	35.803	7.807	1	99.59	C
ATOM	3137	CB	PHE	C	29	-61.325	35.306	6.851	1	95.73	C
ATOM	3138	CG	PHE	C	29	-59.958	35.881	7.1	1	87.48	C
ATOM	3139	CD1	PHE	C	29	-59.211	35.485	8.19	1	91.21	C
ATOM	3140	CE1	PHE	C	29	-57.937	35.992	8.405	1	98.36	C
ATOM	3141	CZ	PHE	C	29	-57.393	36.898	7.511	1	95.8	C
ATOM	3142	CE2	PHE	C	29	-58.129	37.284	6.414	1	93.55	C
ATOM	3143	CD2	PHE	C	29	-59.402	36.773	6.211	1	86.09	C
ATOM	3144	C	PHE	C	29	-62.415	37.33	7.878	1	107.25	C
ATOM	3145	O	PHE	C	29	-61.928	37.919	8.842	1	108.79	O
ATOM	3146	N	THR	C	30	-62.946	37.922	6.811	1	118.56	N
ATOM	3147	CA	THR	C	30	-63.373	39.333	6.693	1	118.6	C
ATOM	3148	CB	THR	C	30	-64.627	39.435	5.763	1	122.37	C
ATOM	3149	OG1	THR	C	30	-65.783	38.878	6.418	1	118.01	O
ATOM	3150	CG2	THR	C	30	-64.412	38.728	4.389	1	114.58	C
ATOM	3151	C	THR	C	30	-63.733	40.113	7.985	1	114.37	C
ATOM	3152	O	THR	C	30	-63.292	41.258	8.155	1	108.91	O
ATOM	3153	N	ASP	C	31	-64.526	39.488	8.867	1	105.38	N
ATOM	3154	CA	ASP	C	31	-65.267	40.178	9.946	1	97.49	C
ATOM	3155	CB	ASP	C	31	-66.705	39.648	9.971	1	98.23	C
ATOM	3156	CG	ASP	C	31	-67.618	40.48	9.14	1	106.41	C
ATOM	3157	OD1	ASP	C	31	-67.781	41.667	9.493	1	110.8	O
ATOM	3158	OD2	ASP	C	31	-68.153	39.964	8.136	1	117.92	O
ATOM	3159	C	ASP	C	31	-64.698	40.106	11.363	1	91.96	C
ATOM	3160	O	ASP	C	31	-65.368	40.469	12.327	1	87.97	O
ATOM	3161	N	TYR	C	32	-63.475	39.634	11.501	1	90.33	N
ATOM	3162	CA	TYR	C	32	-62.894	39.425	12.809	1	90.85	C
ATOM	3163	CB	TYR	C	32	-63.026	37.935	13.2	1	94.9	C
ATOM	3164	CG	TYR	C	32	-64.425	37.565	13.681	1	98.89	C
ATOM	3165	CD1	TYR	C	32	-65.489	37.448	12.788	1	101.08	C

ATOM	3166	CE1	TYR	C	32	-66.766	37.14	13.23	1	103.95	C
ATOM	3167	CZ	TYR	C	32	-66.993	36.946	14.58	1	102.77	C
ATOM	3168	OH	TYR	C	32	-68.251	36.635	15.016	1	113.49	O
ATOM	3169	CE2	TYR	C	32	-65.962	37.058	15.488	1	100.16	C
ATOM	3170	CD2	TYR	C	32	-64.693	37.366	15.036	1	102.47	C
ATOM	3171	C	TYR	C	32	-61.446	39.871	12.741	1	89.86	C
ATOM	3172	O	TYR	C	32	-60.712	39.447	11.839	1	100.93	O
ATOM	3173	N	TYR	C	33	-61.051	40.745	13.664	1	82.85	N
ATOM	3174	CA	TYR	C	33	-59.635	41.075	13.91	1	85.13	C
ATOM	3175	CB	TYR	C	33	-59.512	41.787	15.274	1	93.71	C
ATOM	3176	CG	TYR	C	33	-59.766	43.28	15.222	1	94.57	C
ATOM	3177	CD1	TYR	C	33	-58.737	44.165	14.93	1	90.72	C
ATOM	3178	CE1	TYR	C	33	-58.966	45.526	14.878	1	88.57	C
ATOM	3179	CZ	TYR	C	33	-60.223	46.015	15.12	1	83.87	C
ATOM	3180	OH	TYR	C	33	-60.431	47.363	15.069	1	84.5	O
ATOM	3181	CE2	TYR	C	33	-61.262	45.166	15.413	1	86.58	C
ATOM	3182	CD2	TYR	C	33	-61.031	43.81	15.47	1	91.41	C
ATOM	3183	C	TYR	C	33	-58.698	39.856	13.904	1	80.62	C
ATOM	3184	O	TYR	C	33	-59.12	38.735	13.699	1	86.34	O
ATOM	3185	N	ILE	C	34	-57.414	40.081	14.115	1	78.52	N
ATOM	3186	CA	ILE	C	34	-56.493	38.991	14.419	1	81.9	C
ATOM	3187	CB	ILE	C	34	-55.901	38.341	13.117	1	86.64	C
ATOM	3188	CG1	ILE	C	34	-56.263	36.851	13.017	1	95.03	C
ATOM	3189	CD1	ILE	C	34	-57.581	36.566	12.32	1	102.28	C
ATOM	3190	CG2	ILE	C	34	-54.386	38.482	12.966	1	87.15	C
ATOM	3191	C	ILE	C	34	-55.462	39.59	15.377	1	82.31	C
ATOM	3192	O	ILE	C	34	-54.734	40.515	15.023	1	89.54	O
ATOM	3193	N	ASN	C	35	-55.431	39.111	16.608	1	79.09	N
ATOM	3194	CA	ASN	C	35	-54.486	39.644	17.573	1	77.91	C
ATOM	3195	CB	ASN	C	35	-55.097	39.731	18.961	1	79.49	C
ATOM	3196	CG	ASN	C	35	-56.155	40.808	19.052	1	86.86	C
ATOM	3197	OD1	ASN	C	35	-56.011	41.78	19.811	1	95.97	O
ATOM	3198	ND2	ASN	C	35	-57.207	40.672	18.253	1	88.4	N
ATOM	3199	C	ASN	C	35	-53.25	38.779	17.545	1	76.45	C
ATOM	3200	O	ASN	C	35	-53.264	37.677	17.009	1	70.71	O
ATOM	3201	N	TRP	C	36	-52.175	39.308	18.093	1	77.35	N
ATOM	3202	CA	TRP	C	36	-50.898	38.655	18.032	1	85.03	C
ATOM	3203	CB	TRP	C	36	-50.042	39.292	16.932	1	96.89	C
ATOM	3204	CG	TRP	C	36	-50.362	38.716	15.555	1	106	C
ATOM	3205	CD1	TRP	C	36	-51.226	39.224	14.61	1	107.19	C
ATOM	3206	NE1	TRP	C	36	-51.257	38.403	13.501	1	110.72	N
ATOM	3207	CE2	TRP	C	36	-50.42	37.337	13.717	1	115.35	C
ATOM	3208	CD2	TRP	C	36	-49.835	37.503	14.998	1	114.35	C
ATOM	3209	CE3	TRP	C	36	-48.926	36.534	15.461	1	110.73	C

ATOM	3210	CZ3	TRP	C	36	-48.629	35.452	14.644	1	107.19	C
ATOM	3211	CH2	TRP	C	36	-49.227	35.315	13.378	1	114.47	C
ATOM	3212	CZ2	TRP	C	36	-50.125	36.243	12.899	1	116.29	C
ATOM	3213	C	TRP	C	36	-50.299	38.813	19.396	1	85.68	C
ATOM	3214	O	TRP	C	36	-50.142	39.938	19.867	1	93.04	O
ATOM	3215	N	VAL	C	37	-49.996	37.684	20.034	1	85.37	N
ATOM	3216	CA	VAL	C	37	-49.673	37.642	21.463	1	86.77	C
ATOM	3217	CB	VAL	C	37	-50.806	36.953	22.256	1	91.97	C
ATOM	3218	CG1	VAL	C	37	-50.568	37.079	23.762	1	95.55	C
ATOM	3219	CG2	VAL	C	37	-52.167	37.52	21.855	1	93.09	C
ATOM	3220	C	VAL	C	37	-48.405	36.845	21.685	1	82.17	C
ATOM	3221	O	VAL	C	37	-48.308	35.723	21.197	1	82.13	O
ATOM	3222	N	LYS	C	38	-47.454	37.399	22.431	1	80.13	N
ATOM	3223	CA	LYS	C	38	-46.178	36.722	22.636	1	90.41	C
ATOM	3224	CB	LYS	C	38	-45.012	37.623	22.159	1	96.35	C
ATOM	3225	CG	LYS	C	38	-44.127	38.26	23.23	1	105.71	C
ATOM	3226	CD	LYS	C	38	-42.75	38.641	22.7	1	108.26	C
ATOM	3227	CE	LYS	C	38	-41.841	39.082	23.839	1	110.94	C
ATOM	3228	NZ	LYS	C	38	-40.545	39.635	23.362	1	114.38	N
ATOM	3229	C	LYS	C	38	-46.017	36.221	24.087	1	93.55	C
ATOM	3230	O	LYS	C	38	-46.415	36.904	25.037	1	90.31	O
ATOM	3231	N	GLN	C	39	-45.412	35.039	24.24	1	97.83	N
ATOM	3232	CA	GLN	C	39	-45.229	34.412	25.555	1	111.16	C
ATOM	3233	CB	GLN	C	39	-46.393	33.426	25.814	1	124.89	C
ATOM	3234	CG	GLN	C	39	-46.63	33.07	27.291	1	124.5	C
ATOM	3235	CD	GLN	C	39	-47.616	31.925	27.522	1	112.93	C
ATOM	3236	OE1	GLN	C	39	-47.946	31.158	26.606	1	102.33	O
ATOM	3237	NE2	GLN	C	39	-48.081	31.801	28.77	1	100.98	N
ATOM	3238	C	GLN	C	39	-43.868	33.691	25.696	1	112.28	C
ATOM	3239	O	GLN	C	39	-43.672	32.591	25.151	1	110.36	O
ATOM	3240	N	ARG	C	40	-42.935	34.304	26.429	1	113.67	N
ATOM	3241	CA	ARG	C	40	-41.692	33.618	26.807	1	129.03	C
ATOM	3242	CB	ARG	C	40	-40.633	34.598	27.317	1	142.82	C
ATOM	3243	CG	ARG	C	40	-39.217	34.021	27.325	1	159.46	C
ATOM	3244	CD	ARG	C	40	-38.153	35.022	27.761	1	166.38	C
ATOM	3245	NE	ARG	C	40	-38.147	36.231	26.93	1	171.08	N
ATOM	3246	CZ	ARG	C	40	-37.534	36.366	25.75	1	170.58	C
ATOM	3247	NH1	ARG	C	40	-36.832	35.371	25.205	1	163.08	N
ATOM	3248	NH2	ARG	C	40	-37.622	37.527	25.102	1	175.63	N
ATOM	3249	C	ARG	C	40	-42.053	32.644	27.911	1	133.9	C
ATOM	3250	O	ARG	C	40	-42.965	32.937	28.679	1	150.7	O
ATOM	3251	N	PRO	C	41	-41.357	31.491	28.01	1	142.01	N
ATOM	3252	CA	PRO	C	41	-41.707	30.568	29.108	1	142.51	C
ATOM	3253	CB	PRO	C	41	-40.68	29.443	28.954	1	146.28	C

ATOM	3254	CG	PRO	C	41	-40.378	29.423	27.49	1	148.11	C
ATOM	3255	CD	PRO	C	41	-40.425	30.862	27.05	1	145.4	C
ATOM	3256	C	PRO	C	41	-41.661	31.178	30.525	1	136.89	C
ATOM	3257	O	PRO	C	41	-40.951	32.164	30.766	1	137.92	O
ATOM	3258	N	GLY	C	42	-42.441	30.599	31.437	1	128.79	N
ATOM	3259	CA	GLY	C	42	-42.6	31.135	32.783	1	124.29	C
ATOM	3260	C	GLY	C	42	-43.515	32.334	32.714	1	128.43	C
ATOM	3261	O	GLY	C	42	-44.718	32.213	32.931	1	137.69	O
ATOM	3262	N	GLN	C	43	-42.94	33.485	32.375	1	128.97	N
ATOM	3263	CA	GLN	C	43	-43.692	34.746	32.293	1	127.17	C
ATOM	3264	CB	GLN	C	43	-42.75	35.912	31.991	1	137.24	C
ATOM	3265	CG	GLN	C	43	-42.023	35.85	30.652	1	146.02	C
ATOM	3266	CD	GLN	C	43	-41.27	37.135	30.337	1	158.55	C
ATOM	3267	OE1	GLN	C	43	-41.595	38.214	30.848	1	163.55	O
ATOM	3268	NE2	GLN	C	43	-40.26	37.027	29.485	1	158.53	N
ATOM	3269	C	GLN	C	43	-44.871	34.723	31.3	1	112.64	C
ATOM	3270	O	GLN	C	43	-44.911	33.909	30.388	1	100.45	O
ATOM	3271	N	GLY	C	44	-45.822	35.632	31.494	1	110.07	N
ATOM	3272	CA	GLY	C	44	-47.141	35.551	30.845	1	110.66	C
ATOM	3273	C	GLY	C	44	-47.28	36.131	29.444	1	107.66	C
ATOM	3274	O	GLY	C	44	-46.363	36.011	28.622	1	108.04	O
ATOM	3275	N	LEU	C	45	-48.435	36.759	29.187	1	104.64	N
ATOM	3276	CA	LEU	C	45	-48.809	37.29	27.86	1	114.63	C
ATOM	3277	CB	LEU	C	45	-50.31	37.08	27.629	1	117.24	C
ATOM	3278	CG	LEU	C	45	-50.925	35.699	27.886	1	120.51	C
ATOM	3279	CD1	LEU	C	45	-52.35	35.65	27.336	1	119.68	C
ATOM	3280	CD2	LEU	C	45	-50.075	34.587	27.283	1	120.32	C
ATOM	3281	C	LEU	C	45	-48.491	38.788	27.642	1	119.34	C
ATOM	3282	O	LEU	C	45	-48.406	39.558	28.604	1	131.86	O
ATOM	3283	N	GLU	C	46	-48.333	39.18	26.37	1	114.58	N
ATOM	3284	CA	GLU	C	46	-48.073	40.58	25.965	1	112.48	C
ATOM	3285	CB	GLU	C	46	-46.571	40.893	26.012	1	119.58	C
ATOM	3286	CG	GLU	C	46	-46.192	42.354	25.75	1	123.21	C
ATOM	3287	CD	GLU	C	46	-44.686	42.621	25.864	1	134.49	C
ATOM	3288	OE1	GLU	C	46	-43.963	41.878	26.571	1	143.52	O
ATOM	3289	OE2	GLU	C	46	-44.207	43.594	25.245	1	136.43	O
ATOM	3290	C	GLU	C	46	-48.602	40.793	24.55	1	105.53	C
ATOM	3291	O	GLU	C	46	-48.134	40.148	23.61	1	110.75	O
ATOM	3292	N	TRP	C	47	-49.561	41.703	24.401	1	98.01	N
ATOM	3293	CA	TRP	C	47	-50.317	41.845	23.149	1	93.12	C
ATOM	3294	CB	TRP	C	47	-51.686	42.421	23.44	1	90.16	C
ATOM	3295	CG	TRP	C	47	-52.467	42.758	22.239	1	86.86	C
ATOM	3296	CD1	TRP	C	47	-53.293	41.93	21.538	1	85.76	C
ATOM	3297	NE1	TRP	C	47	-53.872	42.607	20.503	1	79.94	N

ATOM	3298	CE2	TRP	C	47	-53.429	43.897	20.517	1	86.61	C
ATOM	3299	CD2	TRP	C	47	-52.536	44.027	21.604	1	88.43	C
ATOM	3300	CE3	TRP	C	47	-51.927	45.271	21.842	1	91.36	C
ATOM	3301	CZ3	TRP	C	47	-52.216	46.326	20.99	1	93.77	C
ATOM	3302	CH2	TRP	C	47	-53.112	46.154	19.908	1	97.03	C
ATOM	3303	CZ2	TRP	C	47	-53.725	44.95	19.664	1	89.4	C
ATOM	3304	C	TRP	C	47	-49.612	42.762	22.181	1	96.86	C
ATOM	3305	O	TRP	C	47	-49.415	43.927	22.49	1	110.02	O
ATOM	3306	N	ILE	C	48	-49.264	42.255	21.002	1	100.25	N
ATOM	3307	CA	ILE	C	48	-48.44	43.018	20.061	1	99.38	C
ATOM	3308	CB	ILE	C	48	-47.569	42.096	19.168	1	95.99	C
ATOM	3309	CG1	ILE	C	48	-46.654	41.211	20.047	1	97.78	C
ATOM	3310	CD1	ILE	C	48	-46.5	39.778	19.571	1	96.42	C
ATOM	3311	CG2	ILE	C	48	-46.728	42.92	18.196	1	91.18	C
ATOM	3312	C	ILE	C	48	-49.332	43.97	19.253	1	99.28	C
ATOM	3313	O	ILE	C	48	-49.316	45.185	19.485	1	107.99	O
ATOM	3314	N	ALA	C	49	-50.134	43.44	18.337	1	85.81	N
ATOM	3315	CA	ALA	C	49	-50.933	44.315	17.477	1	81.6	C
ATOM	3316	CB	ALA	C	49	-50.046	44.859	16.384	1	89.32	C
ATOM	3317	C	ALA	C	49	-52.116	43.598	16.877	1	77.13	C
ATOM	3318	O	ALA	C	49	-52.222	42.386	16.995	1	81.55	O
ATOM	3319	N	ARG	C	50	-53.003	44.336	16.226	1	77.54	N
ATOM	3320	CA	ARG	C	50	-54.164	43.716	15.597	1	91.17	C
ATOM	3321	CB	ARG	C	50	-55.381	43.759	16.526	1	104.09	C
ATOM	3322	CG	ARG	C	50	-55.974	45.143	16.796	1	109.28	C
ATOM	3323	CD	ARG	C	50	-56.981	45.096	17.944	1	111.26	C
ATOM	3324	NE	ARG	C	50	-58.016	46.131	17.853	1	109.41	N
ATOM	3325	CZ	ARG	C	50	-57.912	47.39	18.294	1	103.57	C
ATOM	3326	NH1	ARG	C	50	-56.8	47.845	18.88	1	96.41	N
ATOM	3327	NH2	ARG	C	50	-58.954	48.21	18.147	1	101.9	N
ATOM	3328	C	ARG	C	50	-54.522	44.344	14.273	1	98.45	C
ATOM	3329	O	ARG	C	50	-54.434	45.559	14.122	1	105.26	O
ATOM	3330	N	ILE	C	51	-54.985	43.495	13.353	1	103.08	N
ATOM	3331	CA	ILE	C	51	-55.25	43.843	11.954	1	103.05	C
ATOM	3332	CB	ILE	C	51	-54.168	43.236	10.985	1	116.82	C
ATOM	3333	CG1	ILE	C	51	-54.557	43.393	9.504	1	123.97	C
ATOM	3334	CD1	ILE	C	51	-53.388	43.335	8.539	1	127.37	C
ATOM	3335	CG2	ILE	C	51	-53.898	41.749	11.249	1	116.83	C
ATOM	3336	C	ILE	C	51	-56.66	43.382	11.566	1	92.23	C
ATOM	3337	O	ILE	C	51	-56.954	42.193	11.58	1	98.61	O
ATOM	3338	N	TYR	C	52	-57.538	44.32	11.231	1	83.37	N
ATOM	3339	CA	TYR	C	52	-58.78	43.96	10.558	1	85.03	C
ATOM	3340	CB	TYR	C	52	-59.698	45.179	10.446	1	78.58	C
ATOM	3341	CG	TYR	C	52	-61.164	44.917	10.087	1	84.43	C

ATOM	3342	CD1	TYR	C	52	-61.864	43.805	10.562	1	88.26	C
ATOM	3343	CE1	TYR	C	52	-63.209	43.604	10.244	1	88.83	C
ATOM	3344	CZ	TYR	C	52	-63.888	44.531	9.466	1	88.23	C
ATOM	3345	OH	TYR	C	52	-65.222	44.347	9.161	1	89.13	O
ATOM	3346	CE2	TYR	C	52	-63.226	45.648	9.004	1	88.77	C
ATOM	3347	CD2	TYR	C	52	-61.88	45.842	9.328	1	89.93	C
ATOM	3348	C	TYR	C	52	-58.352	43.465	9.171	1	94.3	C
ATOM	3349	O	TYR	C	52	-57.409	44.004	8.619	1	104.26	O
ATOM	3350	N	PRO	C	53	-58.983	42.399	8.633	1	103.39	N
ATOM	3351	CA	PRO	C	53	-58.843	42.087	7.214	1	108.02	C
ATOM	3352	CB	PRO	C	53	-58.833	40.559	7.209	1	111.07	C
ATOM	3353	CG	PRO	C	53	-59.715	40.182	8.339	1	111.76	C
ATOM	3354	CD	PRO	C	53	-59.719	41.325	9.325	1	113.49	C
ATOM	3355	C	PRO	C	53	-60.04	42.695	6.472	1	104.49	C
ATOM	3356	O	PRO	C	53	-60.919	41.994	5.949	1	105.14	O
ATOM	3357	N	GLY	C	54	-60.058	44.019	6.469	1	97.77	N
ATOM	3358	CA	GLY	C	54	-61.246	44.776	6.152	1	100.31	C
ATOM	3359	C	GLY	C	54	-61.22	45.24	4.729	1	101.28	C
ATOM	3360	O	GLY	C	54	-61.61	44.464	3.864	1	111.02	O
ATOM	3361	N	ASN	C	55	-60.785	46.472	4.423	1	105.57	N
ATOM	3362	CA	ASN	C	55	-60.215	47.519	5.324	1	100.64	C
ATOM	3363	CB	ASN	C	55	-61.235	48.13	6.345	1	107.76	C
ATOM	3364	CG	ASN	C	55	-62.599	48.477	5.747	1	117.67	C
ATOM	3365	OD1	ASN	C	55	-63.056	49.625	5.858	1	122.92	O
ATOM	3366	ND2	ASN	C	55	-63.285	47.484	5.18	1	117.95	N
ATOM	3367	C	ASN	C	55	-58.947	47.119	6.085	1	88.81	C
ATOM	3368	O	ASN	C	55	-58.858	47.386	7.269	1	88.27	O
ATOM	3369	N	GLY	C	56	-57.972	46.499	5.43	1	80.28	N
ATOM	3370	CA	GLY	C	56	-56.772	45.964	6.103	1	82.64	C
ATOM	3371	C	GLY	C	56	-55.984	46.811	7.119	1	89.02	C
ATOM	3372	O	GLY	C	56	-54.751	46.836	7.064	1	91.31	O
ATOM	3373	N	ASN	C	57	-56.678	47.418	8.095	1	96.91	N
ATOM	3374	CA	ASN	C	57	-56.098	48.37	9.074	1	101.25	C
ATOM	3375	CB	ASN	C	57	-57.194	49.142	9.839	1	107.7	C
ATOM	3376	CG	ASN	C	57	-58.201	49.823	8.928	1	115.09	C
ATOM	3377	OD1	ASN	C	57	-59.382	49.454	8.902	1	114.75	O
ATOM	3378	ND2	ASN	C	57	-57.745	50.829	8.183	1	120.7	N
ATOM	3379	C	ASN	C	57	-55.251	47.673	10.133	1	95.55	C
ATOM	3380	O	ASN	C	57	-55.266	46.46	10.242	1	91.41	O
ATOM	3381	N	THR	C	58	-54.532	48.456	10.93	1	93.97	N
ATOM	3382	CA	THR	C	58	-53.799	47.92	12.078	1	94.74	C
ATOM	3383	CB	THR	C	58	-52.283	47.715	11.799	1	93.98	C
ATOM	3384	OG1	THR	C	58	-51.584	48.961	11.907	1	90.78	O
ATOM	3385	CG2	THR	C	58	-52.033	47.098	10.422	1	90.76	C

ATOM	3386	C	THR	C	58	-53.941	48.851	13.272	1	92.67	C
ATOM	3387	O	THR	C	58	-54.117	50.054	13.09	1	88.21	O
ATOM	3388	N	TYR	C	59	-53.906	48.274	14.475	1	89.27	N
ATOM	3389	CA	TYR	C	59	-53.567	48.999	15.702	1	90.79	C
ATOM	3390	CB	TYR	C	59	-54.701	48.944	16.755	1	93.9	C
ATOM	3391	CG	TYR	C	59	-54.454	49.822	17.977	1	92.26	C
ATOM	3392	CD1	TYR	C	59	-53.361	49.593	18.808	1	103.37	C
ATOM	3393	CE1	TYR	C	59	-53.104	50.381	19.917	1	117.02	C
ATOM	3394	CZ	TYR	C	59	-53.941	51.43	20.219	1	115.49	C
ATOM	3395	OH	TYR	C	59	-53.623	52.183	21.332	1	116.18	O
ATOM	3396	CE2	TYR	C	59	-55.053	51.687	19.415	1	103.94	C
ATOM	3397	CD2	TYR	C	59	-55.304	50.879	18.302	1	92.37	C
ATOM	3398	C	TYR	C	59	-52.348	48.273	16.205	1	86.34	C
ATOM	3399	O	TYR	C	59	-52.366	47.046	16.263	1	86.35	O
ATOM	3400	N	HIS	C	60	-51.303	49.013	16.572	1	87.35	N
ATOM	3401	CA	HIS	C	60	-50.111	48.419	17.188	1	93.42	C
ATOM	3402	CB	HIS	C	60	-48.819	48.836	16.494	1	105.02	C
ATOM	3403	CG	HIS	C	60	-48.637	48.216	15.155	1	115.67	C
ATOM	3404	ND1	HIS	C	60	-47.546	47.439	14.836	1	123.74	N
ATOM	3405	CE1	HIS	C	60	-47.665	47.024	13.586	1	129.98	C
ATOM	3406	NE2	HIS	C	60	-48.796	47.497	13.092	1	127.1	N
ATOM	3407	CD2	HIS	C	60	-49.425	48.243	14.056	1	116.34	C
ATOM	3408	C	HIS	C	60	-49.987	48.922	18.556	1	85.86	C
ATOM	3409	O	HIS	C	60	-50.147	50.117	18.764	1	76.48	O
ATOM	3410	N	ASN	C	61	-49.664	48.021	19.478	1	92.26	N
ATOM	3411	CA	ASN	C	61	-49.106	48.423	20.758	1	102.52	C
ATOM	3412	CB	ASN	C	61	-48.672	47.204	21.568	1	100.98	C
ATOM	3413	CG	ASN	C	61	-47.898	47.575	22.814	1	106.38	C
ATOM	3414	OD1	ASN	C	61	-48.118	48.632	23.415	1	113.24	O
ATOM	3415	ND2	ASN	C	61	-46.982	46.704	23.212	1	109.49	N
ATOM	3416	C	ASN	C	61	-47.899	49.326	20.495	1	103.15	C
ATOM	3417	O	ASN	C	61	-46.849	48.847	20.074	1	91.26	O
ATOM	3418	N	GLU	C	62	-48.06	50.627	20.729	1	112.01	N
ATOM	3419	CA	GLU	C	62	-46.981	51.599	20.506	1	121.13	C
ATOM	3420	CB	GLU	C	62	-47.463	53.064	20.751	1	126.53	C
ATOM	3421	CG	GLU	C	62	-47.8	53.89	19.499	1	127.13	C
ATOM	3422	CD	GLU	C	62	-49.198	53.655	18.92	1	121.67	C
ATOM	3423	OE1	GLU	C	62	-50.211	53.87	19.626	1	118.08	O
ATOM	3424	OE2	GLU	C	62	-49.286	53.286	17.728	1	114.51	O
ATOM	3425	C	GLU	C	62	-45.768	51.229	21.382	1	122.77	C
ATOM	3426	O	GLU	C	62	-45.449	51.923	22.347	1	143.28	O
ATOM	3427	N	LYS	C	63	-45.105	50.128	21.014	1	113.47	N
ATOM	3428	CA	LYS	C	63	-43.984	49.537	21.782	1	116.01	C
ATOM	3429	CB	LYS	C	63	-44.407	49.112	23.195	1	125.13	C

ATOM	3430	CG	LYS	C	63	-43.462	49.603	24.288	1	142.28	C
ATOM	3431	CD	LYS	C	63	-43.495	51.126	24.459	1	154.38	C
ATOM	3432	CE	LYS	C	63	-42.66	51.612	25.635	1	166.3	C
ATOM	3433	NZ	LYS	C	63	-41.258	51.106	25.616	1	175.14	N
ATOM	3434	C	LYS	C	63	-43.316	48.368	21.041	1	105.8	C
ATOM	3435	O	LYS	C	63	-42.115	48.166	21.161	1	98.21	O
ATOM	3436	N	PHE	C	64	-44.103	47.6	20.295	1	107.54	N
ATOM	3437	CA	PHE	C	64	-43.622	46.931	19.081	1	112.93	C
ATOM	3438	CB	PHE	C	64	-44.317	45.584	18.868	1	116.87	C
ATOM	3439	CG	PHE	C	64	-44.209	44.657	20.037	1	112.87	C
ATOM	3440	CD1	PHE	C	64	-45.242	44.562	20.959	1	111.2	C
ATOM	3441	CE1	PHE	C	64	-45.14	43.714	22.041	1	114.42	C
ATOM	3442	CZ	PHE	C	64	-43.992	42.952	22.214	1	116.17	C
ATOM	3443	CE2	PHE	C	64	-42.96	43.038	21.302	1	106.74	C
ATOM	3444	CD2	PHE	C	64	-43.072	43.889	20.221	1	107.87	C
ATOM	3445	C	PHE	C	64	-43.972	47.876	17.94	1	121.68	C
ATOM	3446	O	PHE	C	64	-44.593	47.469	16.938	1	109.47	O
ATOM	3447	N	LYS	C	65	-43.55	49.136	18.108	1	138.94	N
ATOM	3448	CA	LYS	C	65	-44.099	50.293	17.374	1	147.34	C
ATOM	3449	CB	LYS	C	65	-43.75	51.658	18.04	1	152.13	C
ATOM	3450	CG	LYS	C	65	-42.294	52.162	17.954	1	163.14	C
ATOM	3451	CD	LYS	C	65	-41.416	51.761	19.149	1	171.49	C
ATOM	3452	CE	LYS	C	65	-40.059	51.19	18.737	1	170.43	C
ATOM	3453	NZ	LYS	C	65	-39.369	50.488	19.86	1	163.44	N
ATOM	3454	C	LYS	C	65	-43.63	50.25	15.94	1	137.35	C
ATOM	3455	O	LYS	C	65	-44.362	50.652	15.034	1	134.74	O
ATOM	3456	N	GLY	C	66	-42.396	49.77	15.771	1	129.05	N
ATOM	3457	CA	GLY	C	66	-41.825	49.448	14.477	1	126.29	C
ATOM	3458	C	GLY	C	66	-41.518	47.976	14.28	1	120.42	C
ATOM	3459	O	GLY	C	66	-41.685	47.468	13.171	1	137.24	O
ATOM	3460	N	LYS	C	67	-41.114	47.268	15.336	1	106.67	N
ATOM	3461	CA	LYS	C	67	-40.546	45.92	15.179	1	102.54	C
ATOM	3462	CB	LYS	C	67	-39.655	45.571	16.386	1	117.56	C
ATOM	3463	CG	LYS	C	67	-38.36	46.366	16.402	1	131.33	C
ATOM	3464	CD	LYS	C	67	-37.663	46.325	17.756	1	146.29	C
ATOM	3465	CE	LYS	C	67	-38.282	47.266	18.793	1	154.45	C
ATOM	3466	NZ	LYS	C	67	-39.011	46.547	19.879	1	156.12	N
ATOM	3467	C	LYS	C	67	-41.531	44.777	14.878	1	87.52	C
ATOM	3468	O	LYS	C	67	-41.18	43.617	15.072	1	78.94	O
ATOM	3469	N	ALA	C	68	-42.739	45.093	14.401	1	87.43	N
ATOM	3470	CA	ALA	C	68	-43.626	44.103	13.754	1	92.35	C
ATOM	3471	CB	ALA	C	68	-44.451	43.38	14.794	1	97.48	C
ATOM	3472	C	ALA	C	68	-44.557	44.74	12.723	1	94.34	C
ATOM	3473	O	ALA	C	68	-44.764	45.956	12.754	1	96.73	O

ATOM	3474	N	THR	C	69	-45.126	43.92	11.834	1	98.03	N
ATOM	3475	CA	THR	C	69	-46	44.412	10.742	1	108.27	C
ATOM	3476	CB	THR	C	69	-45.182	44.866	9.521	1	118.34	C
ATOM	3477	OG1	THR	C	69	-44.061	43.99	9.368	1	124.45	O
ATOM	3478	CG2	THR	C	69	-44.687	46.306	9.674	1	128.37	C
ATOM	3479	C	THR	C	69	-47	43.374	10.231	1	105.56	C
ATOM	3480	O	THR	C	69	-46.617	42.319	9.711	1	90.66	O
ATOM	3481	N	LEU	C	70	-48.281	43.717	10.334	1	111.4	N
ATOM	3482	CA	LEU	C	70	-49.373	42.775	10.095	1	111.92	C
ATOM	3483	CB	LEU	C	70	-50.518	43.03	11.072	1	117.8	C
ATOM	3484	CG	LEU	C	70	-50.181	43.059	12.56	1	116.75	C
ATOM	3485	CD1	LEU	C	70	-51.453	43.324	13.347	1	115.88	C
ATOM	3486	CD2	LEU	C	70	-49.518	41.76	13.002	1	115.69	C
ATOM	3487	C	LEU	C	70	-49.922	42.928	8.706	1	100.68	C
ATOM	3488	O	LEU	C	70	-50.03	44.043	8.21	1	100.85	O
ATOM	3489	N	THR	C	71	-50.315	41.813	8.104	1	95.57	N
ATOM	3490	CA	THR	C	71	-50.793	41.819	6.728	1	98.14	C
ATOM	3491	CB	THR	C	71	-49.639	41.514	5.741	1	106.08	C
ATOM	3492	OG1	THR	C	71	-48.368	41.601	6.414	1	98.56	O
ATOM	3493	CG2	THR	C	71	-49.682	42.477	4.536	1	106.89	C
ATOM	3494	C	THR	C	71	-51.912	40.803	6.553	1	91.38	C
ATOM	3495	O	THR	C	71	-51.915	39.76	7.196	1	84.8	O
ATOM	3496	N	ALA	C	72	-52.855	41.117	5.676	1	96.59	N
ATOM	3497	CA	ALA	C	72	-54.034	40.282	5.496	1	116.09	C
ATOM	3498	CB	ALA	C	72	-55.223	40.869	6.231	1	118.95	C
ATOM	3499	C	ALA	C	72	-54.36	40.1	4.028	1	130.81	C
ATOM	3500	O	ALA	C	72	-54.177	41.005	3.21	1	146.88	O
ATOM	3501	N	GLU	C	73	-54.893	38.925	3.73	1	132.08	N
ATOM	3502	CA	GLU	C	73	-54.966	38.405	2.389	1	124.95	C
ATOM	3503	CB	GLU	C	73	-53.666	37.619	2.143	1	132.9	C
ATOM	3504	CG	GLU	C	73	-53.487	37.004	0.756	1	147.37	C
ATOM	3505	CD	GLU	C	73	-52.228	36.14	0.633	1	148.56	C
ATOM	3506	OE1	GLU	C	73	-51.983	35.314	1.539	1	148.4	O
ATOM	3507	OE2	GLU	C	73	-51.496	36.255	-0.38	1	137.45	O
ATOM	3508	C	GLU	C	73	-56.212	37.513	2.349	1	121.94	C
ATOM	3509	O	GLU	C	73	-56.149	36.351	2.774	1	126.88	O
ATOM	3510	N	LYS	C	74	-57.35	38.072	1.906	1	114.86	N
ATOM	3511	CA	LYS	C	74	-58.642	37.316	1.892	1	112.52	C
ATOM	3512	CB	LYS	C	74	-59.894	38.224	1.905	1	101.88	C
ATOM	3513	CG	LYS	C	74	-60.011	39.247	0.785	1	106.03	C
ATOM	3514	CD	LYS	C	74	-61.458	39.682	0.565	1	108.18	C
ATOM	3515	CE	LYS	C	74	-61.561	41.055	-0.096	1	115.7	C
ATOM	3516	NZ	LYS	C	74	-61.28	42.208	0.821	1	116.79	N
ATOM	3517	C	LYS	C	74	-58.749	36.263	0.777	1	116.64	C

ATOM	3518	O	LYS	C	74	-59.619	35.394	0.838	1	127.53	O
ATOM	3519	N	SER	C	75	-57.879	36.344	-0.229	1	114.67	N
ATOM	3520	CA	SER	C	75	-57.687	35.252	-1.176	1	115.45	C
ATOM	3521	CB	SER	C	75	-56.603	35.607	-2.213	1	123.22	C
ATOM	3522	OG	SER	C	75	-55.335	35.881	-1.622	1	112	O
ATOM	3523	C	SER	C	75	-57.308	33.969	-0.438	1	121.75	C
ATOM	3524	O	SER	C	75	-57.843	32.908	-0.738	1	134.07	O
ATOM	3525	N	SER	C	76	-56.413	34.091	0.546	1	126.73	N
ATOM	3526	CA	SER	C	76	-55.868	32.952	1.305	1	126.05	C
ATOM	3527	CB	SER	C	76	-54.381	33.184	1.585	1	124.6	C
ATOM	3528	OG	SER	C	76	-53.712	33.624	0.418	1	135.11	O
ATOM	3529	C	SER	C	76	-56.549	32.672	2.641	1	129.34	C
ATOM	3530	O	SER	C	76	-56.372	31.572	3.179	1	139.18	O
ATOM	3531	N	SER	C	77	-57.295	33.658	3.172	1	123.58	N
ATOM	3532	CA	SER	C	77	-57.816	33.664	4.559	1	112.97	C
ATOM	3533	CB	SER	C	77	-58.993	32.702	4.727	1	110.05	C
ATOM	3534	OG	SER	C	77	-60.09	33.136	3.954	1	114.03	O
ATOM	3535	C	SER	C	77	-56.706	33.351	5.554	1	117.66	C
ATOM	3536	O	SER	C	77	-56.888	32.622	6.538	1	120.99	O
ATOM	3537	N	THR	C	78	-55.541	33.905	5.253	1	118.1	N
ATOM	3538	CA	THR	C	78	-54.371	33.78	6.078	1	118.14	C
ATOM	3539	CB	THR	C	78	-53.164	33.264	5.264	1	122.45	C
ATOM	3540	OG1	THR	C	78	-53.579	32.191	4.402	1	124.47	O
ATOM	3541	CG2	THR	C	78	-52.031	32.793	6.191	1	117.24	C
ATOM	3542	C	THR	C	78	-54.128	35.196	6.536	1	115.61	C
ATOM	3543	O	THR	C	78	-54.66	36.15	5.953	1	121.8	O
ATOM	3544	N	ALA	C	79	-53.36	35.326	7.602	1	105.46	N
ATOM	3545	CA	ALA	C	79	-52.873	36.622	8.038	1	104.72	C
ATOM	3546	CB	ALA	C	79	-53.697	37.143	9.198	1	111.09	C
ATOM	3547	C	ALA	C	79	-51.44	36.432	8.443	1	96.21	C
ATOM	3548	O	ALA	C	79	-51.034	35.322	8.78	1	103.82	O
ATOM	3549	N	TYR	C	80	-50.679	37.513	8.406	1	89.25	N
ATOM	3550	CA	TYR	C	80	-49.232	37.426	8.482	1	95.3	C
ATOM	3551	CB	TYR	C	80	-48.615	37.685	7.09	1	104.42	C
ATOM	3552	CG	TYR	C	80	-49.052	36.698	5.999	1	107.16	C
ATOM	3553	CD1	TYR	C	80	-50.329	36.782	5.424	1	117.22	C
ATOM	3554	CE1	TYR	C	80	-50.737	35.891	4.443	1	122.78	C
ATOM	3555	CZ	TYR	C	80	-49.864	34.896	4.011	1	119.28	C
ATOM	3556	OH	TYR	C	80	-50.283	34.013	3.034	1	120.32	O
ATOM	3557	CE2	TYR	C	80	-48.588	34.797	4.555	1	106.43	C
ATOM	3558	CD2	TYR	C	80	-48.191	35.693	5.537	1	100.37	C
ATOM	3559	C	TYR	C	80	-48.689	38.394	9.522	1	93.25	C
ATOM	3560	O	TYR	C	80	-49.389	39.303	9.95	1	97.96	O
ATOM	3561	N	MET	C	81	-47.448	38.172	9.94	1	96.68	N

ATOM	3562	CA	MET	C	81	-46.743	39.092	10.834	1	109.35	C
ATOM	3563	CB	MET	C	81	-47.133	38.828	12.289	1	116.32	C
ATOM	3564	CG	MET	C	81	-46.337	39.666	13.285	1	123.5	C
ATOM	3565	SD	MET	C	81	-47.127	39.846	14.885	1	137.62	S
ATOM	3566	CE	MET	C	81	-46.299	38.586	15.854	1	140.73	C
ATOM	3567	C	MET	C	81	-45.221	38.996	10.708	1	116.38	C
ATOM	3568	O	MET	C	81	-44.609	38.086	11.271	1	125.38	O
ATOM	3569	N	GLN	C	82	-44.607	39.946	10.007	1	115.88	N
ATOM	3570	CA	GLN	C	82	-43.151	40.001	9.932	1	115.21	C
ATOM	3571	CB	GLN	C	82	-42.685	40.582	8.598	1	120.19	C
ATOM	3572	CG	GLN	C	82	-41.167	40.727	8.513	1	121.91	C
ATOM	3573	CD	GLN	C	82	-40.652	40.659	7.098	1	121.09	C
ATOM	3574	OE1	GLN	C	82	-39.855	39.78	6.755	1	112.99	O
ATOM	3575	NE2	GLN	C	82	-41.125	41.572	6.255	1	124.48	N
ATOM	3576	C	GLN	C	82	-42.541	40.797	11.097	1	116.95	C
ATOM	3577	O	GLN	C	82	-42.886	41.959	11.326	1	115.58	O
ATOM	3578	N	LEU	C	83	-41.629	40.145	11.813	1	120.86	N
ATOM	3579	CA	LEU	C	83	-40.766	40.785	12.806	1	125.78	C
ATOM	3580	CB	LEU	C	83	-40.438	39.813	13.948	1	128.16	C
ATOM	3581	CG	LEU	C	83	-41.493	39.371	14.976	1	128.9	C
ATOM	3582	CD1	LEU	C	83	-42.915	39.291	14.438	1	129.83	C
ATOM	3583	CD2	LEU	C	83	-41.086	38.025	15.554	1	131.97	C
ATOM	3584	C	LEU	C	83	-39.476	41.144	12.091	1	126.21	C
ATOM	3585	O	LEU	C	83	-39.022	40.381	11.245	1	139.06	O
ATOM	3586	N	SER	C	84	-38.867	42.276	12.436	1	126.09	N
ATOM	3587	CA	SER	C	84	-37.624	42.711	11.781	1	123.94	C
ATOM	3588	CB	SER	C	84	-37.957	43.719	10.677	1	123.86	C
ATOM	3589	OG	SER	C	84	-38.888	43.151	9.76	1	115.97	O
ATOM	3590	C	SER	C	84	-36.605	43.272	12.787	1	115.41	C
ATOM	3591	O	SER	C	84	-36.975	44.006	13.701	1	122.42	O
ATOM	3592	N	SER	C	85	-35.332	42.911	12.607	1	110.88	N
ATOM	3593	CA	SER	C	85	-34.236	43.231	13.545	1	114.89	C
ATOM	3594	CB	SER	C	85	-34.166	44.729	13.824	1	107.73	C
ATOM	3595	OG	SER	C	85	-34.467	45.422	12.635	1	106.62	O
ATOM	3596	C	SER	C	85	-34.342	42.411	14.838	1	131.17	C
ATOM	3597	O	SER	C	85	-34.379	42.948	15.962	1	139.4	O
ATOM	3598	N	LEU	C	86	-34.364	41.093	14.644	1	131.24	N
ATOM	3599	CA	LEU	C	86	-34.574	40.13	15.725	1	127.94	C
ATOM	3600	CB	LEU	C	86	-34.863	38.737	15.154	1	133.53	C
ATOM	3601	CG	LEU	C	86	-36.303	38.458	14.688	1	146.18	C
ATOM	3602	CD1	LEU	C	86	-36.865	39.549	13.778	1	146.65	C
ATOM	3603	CD2	LEU	C	86	-36.405	37.085	14.021	1	148.99	C
ATOM	3604	C	LEU	C	86	-33.379	40.078	16.672	1	123.64	C
ATOM	3605	O	LEU	C	86	-32.253	40.376	16.281	1	131.16	O

ATOM	3606	N	THR	C	87	-33.639	39.711	17.921	1	119.66	N
ATOM	3607	CA	THR	C	87	-32.614	39.709	18.979	1	121.82	C
ATOM	3608	CB	THR	C	87	-32.52	41.075	19.746	1	125.83	C
ATOM	3609	OG1	THR	C	87	-33.205	41.005	21.008	1	133.38	O
ATOM	3610	CG2	THR	C	87	-33.074	42.269	18.923	1	123.56	C
ATOM	3611	C	THR	C	87	-32.828	38.554	19.977	1	116.32	C
ATOM	3612	O	THR	C	87	-33.835	37.84	19.925	1	92.64	O
ATOM	3613	N	SER	C	88	-31.847	38.379	20.865	1	123.22	N
ATOM	3614	CA	SER	C	88	-31.92	37.428	21.987	1	130.52	C
ATOM	3615	CB	SER	C	88	-30.747	37.655	22.965	1	139.78	C
ATOM	3616	OG	SER	C	88	-30.943	37.013	24.221	1	140.37	O
ATOM	3617	C	SER	C	88	-33.248	37.6	22.706	1	133.41	C
ATOM	3618	O	SER	C	88	-34.015	36.644	22.848	1	131.63	O
ATOM	3619	N	GLU	C	89	-33.521	38.84	23.114	1	137.47	N
ATOM	3620	CA	GLU	C	89	-34.8	39.22	23.715	1	127.91	C
ATOM	3621	CB	GLU	C	89	-34.639	40.449	24.625	1	123.32	C
ATOM	3622	CG	GLU	C	89	-34.241	40.113	26.059	1	125.51	C
ATOM	3623	CD	GLU	C	89	-32.863	39.475	26.205	1	129.81	C
ATOM	3624	OE1	GLU	C	89	-32.059	39.476	25.248	1	133.84	O
ATOM	3625	OE2	GLU	C	89	-32.566	38.974	27.308	1	138.35	O
ATOM	3626	C	GLU	C	89	-35.818	39.455	22.597	1	122.87	C
ATOM	3627	O	GLU	C	89	-36.154	40.589	22.26	1	124.05	O
ATOM	3628	N	ASP	C	90	-36.248	38.355	21.989	1	117.6	N
ATOM	3629	CA	ASP	C	90	-37.268	38.371	20.941	1	124.52	C
ATOM	3630	CB	ASP	C	90	-36.626	38.916	19.653	1	128.52	C
ATOM	3631	CG	ASP	C	90	-37.573	39.746	18.794	1	134.07	C
ATOM	3632	OD1	ASP	C	90	-38.813	39.626	18.921	1	135.13	O
ATOM	3633	OD2	ASP	C	90	-37.05	40.523	17.964	1	130.65	O
ATOM	3634	C	ASP	C	90	-37.878	36.972	20.663	1	129.17	C
ATOM	3635	O	ASP	C	90	-38.6	36.787	19.675	1	127.67	O
ATOM	3636	N	SER	C	91	-37.622	36.004	21.543	1	130.2	N
ATOM	3637	CA	SER	C	91	-37.891	34.597	21.274	1	127.25	C
ATOM	3638	CB	SER	C	91	-36.612	33.773	21.394	1	132.05	C
ATOM	3639	OG	SER	C	91	-35.925	33.75	20.162	1	141.21	O
ATOM	3640	C	SER	C	91	-38.927	34.107	22.262	1	121.54	C
ATOM	3641	O	SER	C	91	-38.849	34.401	23.466	1	109.33	O
ATOM	3642	N	ALA	C	92	-39.879	33.339	21.741	1	112.86	N
ATOM	3643	CA	ALA	C	92	-41.11	33.025	22.453	1	112.67	C
ATOM	3644	CB	ALA	C	92	-41.809	34.319	22.89	1	120.1	C
ATOM	3645	C	ALA	C	92	-42.019	32.229	21.536	1	102.41	C
ATOM	3646	O	ALA	C	92	-41.667	31.956	20.397	1	100.4	O
ATOM	3647	N	VAL	C	93	-43.188	31.864	22.043	1	101.28	N
ATOM	3648	CA	VAL	C	93	-44.289	31.432	21.189	1	101.43	C
ATOM	3649	CB	VAL	C	93	-45.251	30.464	21.921	1	114.38	C

ATOM	3650	CG1	VAL	C	93	-46.277	29.862	20.958	1	110.78	C
ATOM	3651	CG2	VAL	C	93	-44.465	29.356	22.624	1	116.72	C
ATOM	3652	C	VAL	C	93	-45.015	32.698	20.737	1	86.46	C
ATOM	3653	O	VAL	C	93	-44.924	33.747	21.377	1	69.54	O
ATOM	3654	N	TYR	C	94	-45.694	32.607	19.605	1	84.7	N
ATOM	3655	CA	TYR	C	94	-46.518	33.704	19.113	1	90.94	C
ATOM	3656	CB	TYR	C	94	-45.855	34.386	17.904	1	95.54	C
ATOM	3657	CG	TYR	C	94	-44.617	35.17	18.301	1	96.66	C
ATOM	3658	CD1	TYR	C	94	-43.448	34.513	18.695	1	97.7	C
ATOM	3659	CE1	TYR	C	94	-42.318	35.211	19.089	1	98.13	C
ATOM	3660	CZ	TYR	C	94	-42.335	36.589	19.099	1	96.44	C
ATOM	3661	OH	TYR	C	94	-41.195	37.265	19.5	1	88.55	O
ATOM	3662	CE2	TYR	C	94	-43.489	37.269	18.716	1	97.65	C
ATOM	3663	CD2	TYR	C	94	-44.619	36.56	18.32	1	95.93	C
ATOM	3664	C	TYR	C	94	-47.896	33.152	18.781	1	88.25	C
ATOM	3665	O	TYR	C	94	-48.051	32.374	17.84	1	91.5	O
ATOM	3666	N	PHE	C	95	-48.881	33.522	19.59	1	83.48	N
ATOM	3667	CA	PHE	C	95	-50.256	33.109	19.369	1	84.92	C
ATOM	3668	CB	PHE	C	95	-51.001	32.93	20.705	1	88.89	C
ATOM	3669	CG	PHE	C	95	-50.334	31.964	21.665	1	95.71	C
ATOM	3670	CD1	PHE	C	95	-49.371	32.41	22.581	1	101.98	C
ATOM	3671	CE1	PHE	C	95	-48.759	31.532	23.472	1	97.46	C
ATOM	3672	CZ	PHE	C	95	-49.11	30.188	23.459	1	102.12	C
ATOM	3673	CE2	PHE	C	95	-50.067	29.723	22.558	1	98.1	C
ATOM	3674	CD2	PHE	C	95	-50.677	30.61	21.673	1	99.76	C
ATOM	3675	C	PHE	C	95	-50.93	34.173	18.506	1	80.36	C
ATOM	3676	O	PHE	C	95	-50.556	35.348	18.549	1	73.51	O
ATOM	3677	N	CYS	C	96	-51.9	33.743	17.708	1	81.19	N
ATOM	3678	CA	CYS	C	96	-52.798	34.641	16.998	1	91.26	C
ATOM	3679	CB	CYS	C	96	-52.717	34.444	15.475	1	103.12	C
ATOM	3680	SG	CYS	C	96	-53.237	32.819	14.86	1	122.74	S
ATOM	3681	C	CYS	C	96	-54.204	34.359	17.526	1	95.73	C
ATOM	3682	O	CYS	C	96	-54.452	33.268	18.066	1	105.55	O
ATOM	3683	N	ALA	C	97	-55.122	35.319	17.372	1	89.56	N
ATOM	3684	CA	ALA	C	97	-56.429	35.241	18.05	1	80.66	C
ATOM	3685	CB	ALA	C	97	-56.285	35.759	19.477	1	83.04	C
ATOM	3686	C	ALA	C	97	-57.578	35.963	17.34	1	70.44	C
ATOM	3687	O	ALA	C	97	-57.435	37.105	16.959	1	66.95	O
ATOM	3688	N	ARG	C	98	-58.718	35.288	17.216	1	69.57	N
ATOM	3689	CA	ARG	C	98	-59.886	35.797	16.507	1	76.64	C
ATOM	3690	CB	ARG	C	98	-61.075	34.821	16.642	1	81.01	C
ATOM	3691	CG	ARG	C	98	-62.299	35.186	15.801	1	85.24	C
ATOM	3692	CD	ARG	C	98	-63.001	34.002	15.139	1	90.28	C
ATOM	3693	NE	ARG	C	98	-64.263	33.602	15.783	1	98.85	N

ATOM	3694	CZ	ARG	C	98	-65.493	33.674	15.244	1	109.38	C
ATOM	3695	NH1	ARG	C	98	-65.714	34.172	14.027	1	109.53	N
ATOM	3696	NH2	ARG	C	98	-66.545	33.251	15.952	1	112.63	N
ATOM	3697	C	ARG	C	98	-60.261	37.22	16.951	1	88.57	C
ATOM	3698	O	ARG	C	98	-59.977	38.16	16.211	1	98.71	O
ATOM	3699	N	GLU	C	99	-60.863	37.399	18.138	1	93.2	N
ATOM	3700	CA	GLU	C	99	-61.287	38.738	18.628	1	93.28	C
ATOM	3701	CB	GLU	C	99	-60.058	39.663	18.772	1	102.63	C
ATOM	3702	CG	GLU	C	99	-59.909	40.452	20.072	1	111.39	C
ATOM	3703	CD	GLU	C	99	-60.212	41.961	20.045	1	116.77	C
ATOM	3704	OE1	GLU	C	99	-59.303	42.781	20.38	1	101.56	O
ATOM	3705	OE2	GLU	C	99	-61.372	42.332	19.762	1	127.54	O
ATOM	3706	C	GLU	C	99	-62.298	39.416	17.695	1	83.48	C
ATOM	3707	O	GLU	C	99	-62.7	38.867	16.703	1	73.02	O
ATOM	3708	N	GLY	C	100	-62.703	40.626	18.038	1	89.53	N
ATOM	3709	CA	GLY	C	100	-63.317	41.544	17.08	1	91.62	C
ATOM	3710	C	GLY	C	100	-64.761	41.271	16.691	1	92.99	C
ATOM	3711	O	GLY	C	100	-65.227	40.132	16.83	1	89.93	O
ATOM	3712	N	LEU	C	101	-65.488	42.27	16.174	1	94.11	N
ATOM	3713	CA	LEU	C	101	-65.043	43.674	15.949	1	94.72	C
ATOM	3714	CB	LEU	C	101	-65.007	43.977	14.443	1	106.73	C
ATOM	3715	CG	LEU	C	101	-64.962	45.44	13.91	1	110.84	C
ATOM	3716	CD1	LEU	C	101	-63.63	45.804	13.248	1	103.97	C
ATOM	3717	CD2	LEU	C	101	-66.142	45.713	12.962	1	114.57	C
ATOM	3718	C	LEU	C	101	-65.944	44.703	16.631	1	90.41	C
ATOM	3719	O	LEU	C	101	-65.464	45.796	16.966	1	81.15	O
ATOM	3720	N	TYR	C	102	-67.243	44.398	16.752	1	92.72	N
ATOM	3721	CA	TYR	C	102	-68.16	45.172	17.593	1	99.43	C
ATOM	3722	CB	TYR	C	102	-69.591	45.153	17.038	1	103.96	C
ATOM	3723	CG	TYR	C	102	-69.789	45.656	15.622	1	112.18	C
ATOM	3724	CD1	TYR	C	102	-69.058	46.734	15.124	1	116.94	C
ATOM	3725	CE1	TYR	C	102	-69.245	47.207	13.831	1	116.73	C
ATOM	3726	CZ	TYR	C	102	-70.195	46.615	13.026	1	120.81	C
ATOM	3727	OH	TYR	C	102	-70.389	47.088	11.749	1	123.31	O
ATOM	3728	CE2	TYR	C	102	-70.95	45.551	13.502	1	122.92	C
ATOM	3729	CD2	TYR	C	102	-70.748	45.085	14.796	1	117.42	C
ATOM	3730	C	TYR	C	102	-68.184	44.618	19.023	1	96.77	C
ATOM	3731	O	TYR	C	102	-68.088	43.411	19.219	1	96.55	O
ATOM	3732	N	TYR	C	103	-68.294	45.514	20.007	1	94.6	N
ATOM	3733	CA	TYR	C	103	-68.594	45.151	21.386	1	91.97	C
ATOM	3734	CB	TYR	C	103	-68.153	46.229	22.358	1	87.58	C
ATOM	3735	CG	TYR	C	103	-66.703	46.64	22.346	1	80.44	C
ATOM	3736	CD1	TYR	C	103	-66.241	47.623	21.484	1	79.85	C
ATOM	3737	CE1	TYR	C	103	-64.919	48.04	21.513	1	79.7	C

ATOM	3738	CZ	TYR	C	103	-64.048	47.498	22.434	1	77.14	C
ATOM	3739	OH	TYR	C	103	-62.736	47.91	22.478	1	73.78	O
ATOM	3740	CE2	TYR	C	103	-64.489	46.531	23.306	1	77.96	C
ATOM	3741	CD2	TYR	C	103	-65.808	46.118	23.269	1	79.81	C
ATOM	3742	C	TYR	C	103	-70.117	45.052	21.451	1	101.77	C
ATOM	3743	O	TYR	C	103	-70.814	46.019	21.154	1	105.59	O
ATOM	3744	N	ASP	C	104	-70.606	43.916	21.935	1	110.57	N
ATOM	3745	CA	ASP	C	104	-71.879	43.257	21.51	1	112.97	C
ATOM	3746	CB	ASP	C	104	-73.043	44.165	20.982	1	107.3	C
ATOM	3747	CG	ASP	C	104	-72.816	44.765	19.582	1	102.91	C
ATOM	3748	OD1	ASP	C	104	-71.846	44.417	18.898	1	106.34	O
ATOM	3749	OD2	ASP	C	104	-73.629	45.622	19.163	1	97.8	O
ATOM	3750	C	ASP	C	104	-71.386	42.198	20.543	1	109.16	C
ATOM	3751	O	ASP	C	104	-70.21	42.219	20.185	1	127.29	O
ATOM	3752	N	TYR	C	105	-72.221	41.249	20.151	1	102.37	N
ATOM	3753	CA	TYR	C	105	-71.677	40.011	19.573	1	108.92	C
ATOM	3754	CB	TYR	C	105	-71.343	40.157	18.062	1	113.61	C
ATOM	3755	CG	TYR	C	105	-72.438	40.806	17.21	1	125.1	C
ATOM	3756	CD1	TYR	C	105	-73.602	40.108	16.872	1	130.44	C
ATOM	3757	CE1	TYR	C	105	-74.598	40.705	16.099	1	133.21	C
ATOM	3758	CZ	TYR	C	105	-74.438	42.014	15.644	1	126	C
ATOM	3759	OH	TYR	C	105	-75.418	42.606	14.878	1	131.24	O
ATOM	3760	CE2	TYR	C	105	-73.296	42.725	15.957	1	117.86	C
ATOM	3761	CD2	TYR	C	105	-72.302	42.125	16.728	1	124.5	C
ATOM	3762	C	TYR	C	105	-70.461	39.548	20.453	1	100.75	C
ATOM	3763	O	TYR	C	105	-70.676	39.103	21.593	1	94.74	O
ATOM	3764	N	ASP	C	106	-69.214	39.732	20	1	89.98	N
ATOM	3765	CA	ASP	C	106	-68.1	38.979	20.576	1	89.44	C
ATOM	3766	CB	ASP	C	106	-68.147	37.541	20.049	1	96.53	C
ATOM	3767	CG	ASP	C	106	-68.334	37.469	18.538	1	104.38	C
ATOM	3768	OD1	ASP	C	106	-68.6	38.526	17.925	1	111.94	O
ATOM	3769	OD2	ASP	C	106	-68.23	36.351	17.974	1	109.31	O
ATOM	3770	C	ASP	C	106	-66.706	39.54	20.361	1	90.72	C
ATOM	3771	O	ASP	C	106	-65.933	39.013	19.563	1	99.63	O
ATOM	3772	N	ARG	C	107	-66.374	40.588	21.11	1	95.35	N
ATOM	3773	CA	ARG	C	107	-64.999	41.106	21.166	1	93.85	C
ATOM	3774	CB	ARG	C	107	-64.97	42.624	21.325	1	100.07	C
ATOM	3775	CG	ARG	C	107	-64.954	43.371	20.008	1	105.47	C
ATOM	3776	CD	ARG	C	107	-64.86	44.866	20.245	1	101.01	C
ATOM	3777	NE	ARG	C	107	-63.472	45.272	20.473	1	95.48	N
ATOM	3778	CZ	ARG	C	107	-62.67	45.875	19.593	1	85.19	C
ATOM	3779	NH1	ARG	C	107	-63.082	46.211	18.369	1	83.59	N
ATOM	3780	NH2	ARG	C	107	-61.425	46.163	19.958	1	83.55	N
ATOM	3781	C	ARG	C	107	-64.269	40.452	22.312	1	91.17	C

ATOM	3782	O	ARG	C	107	-64.077	41.041	23.377	1	97.25	O
ATOM	3783	N	TYR	C	108	-63.893	39.206	22.097	1	85.44	N
ATOM	3784	CA	TYR	C	108	-63.058	38.5	23.046	1	81.03	C
ATOM	3785	CB	TYR	C	108	-63.888	37.929	24.181	1	76.79	C
ATOM	3786	CG	TYR	C	108	-65.269	37.428	23.814	1	75.44	C
ATOM	3787	CD1	TYR	C	108	-66.391	38.191	24.074	1	74.12	C
ATOM	3788	CE1	TYR	C	108	-67.664	37.724	23.781	1	77.12	C
ATOM	3789	CZ	TYR	C	108	-67.834	36.475	23.215	1	78.44	C
ATOM	3790	OH	TYR	C	108	-69.113	36.042	22.91	1	78.86	O
ATOM	3791	CE2	TYR	C	108	-66.729	35.681	22.958	1	79.05	C
ATOM	3792	CD2	TYR	C	108	-65.457	36.163	23.261	1	80.04	C
ATOM	3793	C	TYR	C	108	-62.303	37.414	22.322	1	82.75	C
ATOM	3794	O	TYR	C	108	-62.857	36.77	21.423	1	87.08	O
ATOM	3795	N	PHE	C	109	-61.048	37.209	22.728	1	80.26	N
ATOM	3796	CA	PHE	C	109	-60.12	36.344	22.005	1	76.93	C
ATOM	3797	CB	PHE	C	109	-58.675	36.373	22.563	1	76.26	C
ATOM	3798	CG	PHE	C	109	-57.957	37.705	22.53	1	74.86	C
ATOM	3799	CD1	PHE	C	109	-58.59	38.917	22.466	1	77.09	C
ATOM	3800	CE1	PHE	C	109	-57.862	40.106	22.502	1	80.78	C
ATOM	3801	CZ	PHE	C	109	-56.498	40.095	22.623	1	74.88	C
ATOM	3802	CE2	PHE	C	109	-55.856	38.892	22.711	1	75.71	C
ATOM	3803	CD2	PHE	C	109	-56.584	37.714	22.685	1	77.82	C
ATOM	3804	C	PHE	C	109	-60.672	34.935	22.251	1	74.38	C
ATOM	3805	O	PHE	C	109	-60.227	34.249	23.16	1	71.17	O
ATOM	3806	N	ASP	C	110	-61.663	34.517	21.477	1	75.63	N
ATOM	3807	CA	ASP	C	110	-62.344	33.261	21.761	1	81.73	C
ATOM	3808	CB	ASP	C	110	-63.814	33.344	21.365	1	91.02	C
ATOM	3809	CG	ASP	C	110	-64.027	33.228	19.879	1	100.74	C
ATOM	3810	OD1	ASP	C	110	-63.267	33.867	19.111	1	108.26	O
ATOM	3811	OD2	ASP	C	110	-64.966	32.502	19.489	1	107.34	O
ATOM	3812	C	ASP	C	110	-61.689	32.067	21.092	1	80.03	C
ATOM	3813	O	ASP	C	110	-61.964	30.931	21.478	1	82.9	O
ATOM	3814	N	TYR	C	111	-60.844	32.322	20.093	1	78.41	N
ATOM	3815	CA	TYR	C	111	-60.192	31.258	19.342	1	83.5	C
ATOM	3816	CB	TYR	C	111	-60.916	31.043	18.025	1	85.71	C
ATOM	3817	CG	TYR	C	111	-62.222	30.272	18.12	1	87.58	C
ATOM	3818	CD1	TYR	C	111	-62.289	29.012	18.732	1	86.92	C
ATOM	3819	CE1	TYR	C	111	-63.482	28.297	18.775	1	84.9	C
ATOM	3820	CZ	TYR	C	111	-64.62	28.836	18.194	1	86.25	C
ATOM	3821	OH	TYR	C	111	-65.823	28.168	18.215	1	97.14	O
ATOM	3822	CE2	TYR	C	111	-64.571	30.07	17.582	1	86.4	C
ATOM	3823	CD2	TYR	C	111	-63.379	30.771	17.534	1	86.42	C
ATOM	3824	C	TYR	C	111	-58.729	31.568	19.069	1	85.49	C
ATOM	3825	O	TYR	C	111	-58.375	32.679	18.725	1	84.23	O

ATOM	3826	N	TRP	C	112	-57.895	30.547	19.197	1	93.23	N
ATOM	3827	CA	TRP	C	112	-56.461	30.712	19.338	1	92.88	C
ATOM	3828	CB	TRP	C	112	-56.094	30.523	20.808	1	93.43	C
ATOM	3829	CG	TRP	C	112	-56.561	31.627	21.733	1	92.7	C
ATOM	3830	CD1	TRP	C	112	-57.836	31.887	22.12	1	90.12	C
ATOM	3831	NE1	TRP	C	112	-57.858	32.965	22.973	1	88.19	N
ATOM	3832	CE2	TRP	C	112	-56.581	33.411	23.17	1	80.03	C
ATOM	3833	CD2	TRP	C	112	-55.732	32.593	22.413	1	89.02	C
ATOM	3834	CE3	TRP	C	112	-54.353	32.848	22.436	1	92.11	C
ATOM	3835	CZ3	TRP	C	112	-53.884	33.881	23.213	1	91.29	C
ATOM	3836	CH2	TRP	C	112	-54.761	34.669	23.964	1	90.09	C
ATOM	3837	CZ2	TRP	C	112	-56.111	34.447	23.951	1	82.39	C
ATOM	3838	C	TRP	C	112	-55.724	29.669	18.521	1	95.44	C
ATOM	3839	O	TRP	C	112	-56.022	28.476	18.607	1	91.86	O
ATOM	3840	N	GLY	C	113	-54.747	30.104	17.742	1	103.36	N
ATOM	3841	CA	GLY	C	113	-53.894	29.164	17.026	1	109.43	C
ATOM	3842	C	GLY	C	113	-53.01	28.408	17.998	1	110.98	C
ATOM	3843	O	GLY	C	113	-52.635	28.952	19.04	1	105.22	O
ATOM	3844	N	GLN	C	114	-52.677	27.164	17.643	1	118.2	N
ATOM	3845	CA	GLN	C	114	-51.892	26.237	18.509	1	117.62	C
ATOM	3846	CB	GLN	C	114	-51.552	24.894	17.811	1	123.45	C
ATOM	3847	CG	GLN	C	114	-51.473	24.852	16.28	1	134.95	C
ATOM	3848	CD	GLN	C	114	-50.457	25.799	15.651	1	145.46	C
ATOM	3849	OE1	GLN	C	114	-49.878	26.667	16.302	1	153.72	O
ATOM	3850	NE2	GLN	C	114	-50.228	25.613	14.361	1	148.2	N
ATOM	3851	C	GLN	C	114	-50.621	26.808	19.132	1	110.76	C
ATOM	3852	O	GLN	C	114	-50.12	26.274	20.129	1	107.38	O
ATOM	3853	N	GLY	C	115	-50.093	27.865	18.522	1	111.48	N
ATOM	3854	CA	GLY	C	115	-48.966	28.598	19.066	1	123.26	C
ATOM	3855	C	GLY	C	115	-47.703	28.089	18.419	1	123.84	C
ATOM	3856	O	GLY	C	115	-47.416	26.889	18.458	1	123.39	O
ATOM	3857	N	THR	C	116	-46.944	29.01	17.837	1	126.11	N
ATOM	3858	CA	THR	C	116	-45.737	28.669	17.098	1	129.25	C
ATOM	3859	CB	THR	C	116	-45.795	29.093	15.601	1	127.6	C
ATOM	3860	OG1	THR	C	116	-44.554	29.707	15.227	1	128.12	O
ATOM	3861	CG2	THR	C	116	-46.962	30.057	15.283	1	120.76	C
ATOM	3862	C	THR	C	116	-44.549	29.291	17.832	1	129.08	C
ATOM	3863	O	THR	C	116	-44.536	30.497	18.073	1	126.03	O
ATOM	3864	N	ALA	C	117	-43.582	28.451	18.211	1	128.92	N
ATOM	3865	CA	ALA	C	117	-42.376	28.893	18.919	1	123.29	C
ATOM	3866	CB	ALA	C	117	-41.705	27.721	19.616	1	118.33	C
ATOM	3867	C	ALA	C	117	-41.415	29.564	17.945	1	122.53	C
ATOM	3868	O	ALA	C	117	-41.593	29.464	16.735	1	115.01	O
ATOM	3869	N	LEU	C	118	-40.418	30.268	18.482	1	133.94	N

ATOM	3870	CA	LEU	C	118	-39.39	30.938	17.667	1	141.74	C
ATOM	3871	CB	LEU	C	118	-39.894	32.271	17.102	1	150.37	C
ATOM	3872	CG	LEU	C	118	-38.941	33.01	16.141	1	151.56	C
ATOM	3873	CD1	LEU	C	118	-38.957	32.349	14.77	1	150.59	C
ATOM	3874	CD2	LEU	C	118	-39.292	34.488	16.025	1	151.15	C
ATOM	3875	C	LEU	C	118	-38.121	31.2	18.467	1	138.64	C
ATOM	3876	O	LEU	C	118	-38.16	31.831	19.534	1	115.13	O
ATOM	3877	N	THR	C	119	-37.001	30.744	17.91	1	142.92	N
ATOM	3878	CA	THR	C	119	-35.703	30.851	18.549	1	153.39	C
ATOM	3879	CB	THR	C	119	-35.083	29.46	18.798	1	156.2	C
ATOM	3880	OG1	THR	C	119	-36.121	28.509	19.08	1	166.17	O
ATOM	3881	CG2	THR	C	119	-34.103	29.512	19.973	1	151.92	C
ATOM	3882	C	THR	C	119	-34.8	31.678	17.644	1	154.34	C
ATOM	3883	O	THR	C	119	-34.564	31.305	16.498	1	150.83	O
ATOM	3884	N	VAL	C	120	-34.335	32.816	18.154	1	155.72	N
ATOM	3885	CA	VAL	C	120	-33.359	33.646	17.459	1	151.19	C
ATOM	3886	CB	VAL	C	120	-33.689	35.144	17.596	1	144.34	C
ATOM	3887	CG1	VAL	C	120	-32.547	36.022	17.094	1	145.85	C
ATOM	3888	CG2	VAL	C	120	-34.964	35.446	16.822	1	140.85	C
ATOM	3889	C	VAL	C	120	-31.983	33.268	18.01	1	163.1	C
ATOM	3890	O	VAL	C	120	-31.556	33.755	19.062	1	158.55	O
ATOM	3891	N	SER	C	121	-31.325	32.366	17.282	1	177.9	N
ATOM	3892	CA	SER	C	121	-30.058	31.75	17.683	1	178.45	C
ATOM	3893	CB	SER	C	121	-30.339	30.474	18.486	1	176.48	C
ATOM	3894	OG	SER	C	121	-29.15	29.886	18.983	1	167.07	O
ATOM	3895	C	SER	C	121	-29.264	31.419	16.418	1	175.29	C
ATOM	3896	O	SER	C	121	-29.849	31.001	15.411	1	172.08	O
ATOM	3897	N	SER	C	122	-27.943	31.596	16.471	1	166.67	N
ATOM	3898	CA	SER	C	122	-27.101	31.458	15.274	1	163.91	C
ATOM	3899	CB	SER	C	122	-26.059	32.584	15.229	1	158.18	C
ATOM	3900	OG	SER	C	122	-25.895	33.053	13.898	1	147.18	O
ATOM	3901	C	SER	C	122	-26.433	30.074	15.081	1	164.02	C
ATOM	3902	O	SER	C	122	-25.639	29.91	14.149	1	165.77	O
ATOM	3903	N	ALA	C	123	-26.754	29.089	15.932	1	159.08	N
ATOM	3904	CA	ALA	C	123	-26.41	27.673	15.665	1	145.4	C
ATOM	3905	CB	ALA	C	123	-26.499	26.828	16.936	1	134.14	C
ATOM	3906	C	ALA	C	123	-27.327	27.105	14.568	1	141.46	C
ATOM	3907	O	ALA	C	123	-28.252	27.788	14.105	1	136.14	O
ATOM	3908	N	SER	C	124	-27.072	25.858	14.165	1	140.89	N
ATOM	3909	CA	SER	C	124	-27.765	25.232	13.024	1	137.49	C
ATOM	3910	CB	SER	C	124	-26.735	24.713	12.017	1	135.82	C
ATOM	3911	OG	SER	C	124	-26.028	25.793	11.428	1	132.72	O
ATOM	3912	C	SER	C	124	-28.723	24.101	13.422	1	129.5	C
ATOM	3913	O	SER	C	124	-28.53	23.427	14.444	1	109.21	O

ATOM	3914	N	THR	C	125	-29.748	23.903	12.587	1	134.57	N
ATOM	3915	CA	THR	C	125	-30.74	22.832	12.762	1	143.73	C
ATOM	3916	CB	THR	C	125	-31.69	22.721	11.538	1	148.71	C
ATOM	3917	OG1	THR	C	125	-32.496	23.903	11.429	1	138.24	O
ATOM	3918	CG2	THR	C	125	-32.617	21.514	11.646	1	150.47	C
ATOM	3919	C	THR	C	125	-30.03	21.5	12.984	1	146.38	C
ATOM	3920	O	THR	C	125	-28.978	21.244	12.391	1	149.07	O
ATOM	3921	N	LYS	C	126	-30.624	20.663	13.832	1	147.01	N
ATOM	3922	CA	LYS	C	126	-29.942	19.502	14.389	1	144.39	C
ATOM	3923	CB	LYS	C	126	-28.922	20	15.439	1	142.23	C
ATOM	3924	CG	LYS	C	126	-28.374	18.993	16.437	1	137.16	C
ATOM	3925	CD	LYS	C	126	-27.693	17.82	15.769	1	140.75	C
ATOM	3926	CE	LYS	C	126	-27.148	16.859	16.808	1	147.56	C
ATOM	3927	NZ	LYS	C	126	-26.87	15.523	16.215	1	153.69	N
ATOM	3928	C	LYS	C	126	-30.98	18.545	14.98	1	146.55	C
ATOM	3929	O	LYS	C	126	-31.757	18.927	15.856	1	165.92	O
ATOM	3930	N	GLY	C	127	-30.999	17.309	14.489	1	152.67	N
ATOM	3931	CA	GLY	C	127	-31.921	16.29	14.984	1	158.1	C
ATOM	3932	C	GLY	C	127	-31.562	15.759	16.371	1	159.6	C
ATOM	3933	O	GLY	C	127	-30.628	16.257	17.004	1	144.03	O
ATOM	3934	N	PRO	C	128	-32.312	14.747	16.858	1	171.24	N
ATOM	3935	CA	PRO	C	128	-32.059	14.092	18.145	1	179.45	C
ATOM	3936	CB	PRO	C	128	-33.455	14.037	18.751	1	179.35	C
ATOM	3937	CG	PRO	C	128	-34.375	13.908	17.571	1	180.09	C
ATOM	3938	CD	PRO	C	128	-33.636	14.354	16.336	1	172.97	C
ATOM	3939	C	PRO	C	128	-31.502	12.661	18.047	1	190.49	C
ATOM	3940	O	PRO	C	128	-31.948	11.884	17.199	1	195.38	O
ATOM	3941	N	SER	C	129	-30.558	12.316	18.927	1	199.22	N
ATOM	3942	CA	SER	C	129	-30.058	10.936	19.042	1	195.81	C
ATOM	3943	CB	SER	C	129	-28.671	10.897	19.718	1	184.38	C
ATOM	3944	OG	SER	C	129	-27.722	11.734	19.079	1	167.48	O
ATOM	3945	C	SER	C	129	-31.08	10.091	19.831	1	198.39	C
ATOM	3946	O	SER	C	129	-30.961	9.927	21.05	1	210.43	O
ATOM	3947	N	VAL	C	130	-32.078	9.555	19.124	1	185.41	N
ATOM	3948	CA	VAL	C	130	-33.234	8.889	19.758	1	171.02	C
ATOM	3949	CB	VAL	C	130	-34.483	8.889	18.827	1	161.36	C
ATOM	3950	CG1	VAL	C	130	-35.702	8.301	19.544	1	158.88	C
ATOM	3951	CG2	VAL	C	130	-34.77	10.296	18.314	1	158.7	C
ATOM	3952	C	VAL	C	130	-32.912	7.448	20.189	1	165.59	C
ATOM	3953	O	VAL	C	130	-33.068	6.506	19.41	1	167.26	O
ATOM	3954	N	PHE	C	131	-32.473	7.285	21.433	1	153.93	N
ATOM	3955	CA	PHE	C	131	-32.237	5.961	22.001	1	157.9	C
ATOM	3956	CB	PHE	C	131	-30.971	5.962	22.846	1	157.06	C
ATOM	3957	CG	PHE	C	131	-29.807	6.611	22.163	1	164.1	C

ATOM	3958	CD1	PHE	C	131	-29.252	6.035	21.024	1	171.22	C
ATOM	3959	CE1	PHE	C	131	-28.185	6.632	20.373	1	168.45	C
ATOM	3960	CZ	PHE	C	131	-27.662	7.82	20.856	1	169.5	C
ATOM	3961	CE2	PHE	C	131	-28.214	8.414	21.985	1	167.54	C
ATOM	3962	CD2	PHE	C	131	-29.28	7.81	22.633	1	163.63	C
ATOM	3963	C	PHE	C	131	-33.441	5.589	22.853	1	173.31	C
ATOM	3964	O	PHE	C	131	-34.096	6.477	23.39	1	182.72	O
ATOM	3965	N	PRO	C	132	-33.754	4.283	22.976	1	192.71	N
ATOM	3966	CA	PRO	C	132	-34.839	3.901	23.893	1	188.54	C
ATOM	3967	CB	PRO	C	132	-35.234	2.497	23.4	1	188.99	C
ATOM	3968	CG	PRO	C	132	-34.623	2.359	22.044	1	194.06	C
ATOM	3969	CD	PRO	C	132	-33.342	3.128	22.16	1	196.01	C
ATOM	3970	C	PRO	C	132	-34.428	3.864	25.377	1	176.6	C
ATOM	3971	O	PRO	C	132	-33.324	4.293	25.741	1	149.55	O
ATOM	3972	N	LEU	C	133	-35.337	3.364	26.214	1	181.58	N
ATOM	3973	CA	LEU	C	133	-35.111	3.207	27.652	1	195.5	C
ATOM	3974	CB	LEU	C	133	-35.814	4.331	28.408	1	195.1	C
ATOM	3975	CG	LEU	C	133	-35.174	5.718	28.263	1	195.38	C
ATOM	3976	CD1	LEU	C	133	-36.166	6.817	28.605	1	194.31	C
ATOM	3977	CD2	LEU	C	133	-33.908	5.847	29.106	1	197.61	C
ATOM	3978	C	LEU	C	133	-35.628	1.834	28.109	1	201.9	C
ATOM	3979	O	LEU	C	133	-36.804	1.52	27.917	1	223.92	O
ATOM	3980	N	ALA	C	134	-34.75	1.044	28.731	1	188.88	N
ATOM	3981	CA	ALA	C	134	-34.977	-0.394	28.958	1	174.12	C
ATOM	3982	CB	ALA	C	134	-33.704	-1.032	29.502	1	178	C
ATOM	3983	C	ALA	C	134	-36.153	-0.722	29.895	1	160.88	C
ATOM	3984	O	ALA	C	134	-36.094	-0.396	31.079	1	146.42	O
ATOM	3985	N	PRO	C	135	-37.204	-1.407	29.386	1	152.7	N
ATOM	3986	CA	PRO	C	135	-38.294	-1.844	30.254	1	155.89	C
ATOM	3987	CB	PRO	C	135	-39.491	-1.88	29.295	1	147.73	C
ATOM	3988	CG	PRO	C	135	-38.903	-2.244	27.975	1	143.45	C
ATOM	3989	CD	PRO	C	135	-37.459	-1.797	27.985	1	147.06	C
ATOM	3990	C	PRO	C	135	-38.023	-3.221	30.888	1	169.73	C
ATOM	3991	O	PRO	C	135	-38.874	-4.118	30.797	1	185.95	O
ATOM	3992	N	SER	C	136	-36.86	-3.377	31.536	1	168.01	N
ATOM	3993	CA	SER	C	136	-36.486	-4.643	32.174	1	163.51	C
ATOM	3994	CB	SER	C	136	-35.037	-4.63	32.665	1	161.85	C
ATOM	3995	OG	SER	C	136	-34.722	-5.843	33.333	1	160.81	O
ATOM	3996	C	SER	C	136	-37.446	-4.878	33.33	1	165.45	C
ATOM	3997	O	SER	C	136	-37.253	-4.345	34.429	1	147.95	O
ATOM	3998	N	SER	C	137	-38.486	-5.668	33.044	1	176.06	N
ATOM	3999	CA	SER	C	137	-39.652	-5.826	33.919	1	178.2	C
ATOM	4000	CB	SER	C	137	-40.748	-6.671	33.234	1	166.12	C
ATOM	4001	OG	SER	C	137	-40.209	-7.741	32.473	1	151.36	O

ATOM	4002	C	SER	C	137	-39.274	-6.378	35.302	1	190.52	C
ATOM	4003	O	SER	C	137	-39.374	-7.58	35.572	1	195.56	O
ATOM	4004	N	LYS	C	138	-38.827	-5.46	36.159	1	186.41	N
ATOM	4005	CA	LYS	C	138	-38.464	-5.757	37.54	1	177.44	C
ATOM	4006	CB	LYS	C	138	-37.58	-4.642	38.115	1	180.12	C
ATOM	4007	CG	LYS	C	138	-36.096	-4.77	37.786	1	176.09	C
ATOM	4008	CD	LYS	C	138	-35.331	-5.517	38.878	1	166.08	C
ATOM	4009	CE	LYS	C	138	-33.841	-5.212	38.861	1	153.18	C
ATOM	4010	NZ	LYS	C	138	-33.23	-5.49	40.19	1	146.36	N
ATOM	4011	C	LYS	C	138	-39.737	-5.891	38.364	1	172.03	C
ATOM	4012	O	LYS	C	138	-40.337	-4.879	38.735	1	162.69	O
ATOM	4013	N	SER	C	139	-40.146	-7.137	38.616	1	171.95	N
ATOM	4014	CA	SER	C	139	-41.318	-7.471	39.442	1	176.43	C
ATOM	4015	CB	SER	C	139	-41.249	-6.751	40.804	1	175.1	C
ATOM	4016	OG	SER	C	139	-42.052	-7.385	41.784	1	179.09	O
ATOM	4017	C	SER	C	139	-42.655	-7.179	38.729	1	181.63	C
ATOM	4018	O	SER	C	139	-42.914	-6.047	38.327	1	180.79	O
ATOM	4019	N	THR	C	140	-43.49	-8.212	38.58	1	191.88	N
ATOM	4020	CA	THR	C	140	-44.862	-8.088	38.04	1	196.27	C
ATOM	4021	CB	THR	C	140	-45.032	-8.831	36.675	1	181.82	C
ATOM	4022	OG1	THR	C	140	-46.42	-8.931	36.332	1	176.07	O
ATOM	4023	CG2	THR	C	140	-44.423	-10.234	36.684	1	167.41	C
ATOM	4024	C	THR	C	140	-45.864	-8.576	39.113	1	216.55	C
ATOM	4025	O	THR	C	140	-45.643	-9.623	39.718	1	236.17	O
ATOM	4026	N	SER	C	141	-46.943	-7.806	39.329	1	226.33	N
ATOM	4027	CA	SER	C	141	-47.952	-7.979	40.431	1	221.4	C
ATOM	4028	CB	SER	C	141	-48.218	-9.454	40.807	1	225.74	C
ATOM	4029	OG	SER	C	141	-47.256	-9.97	41.717	1	225.02	O
ATOM	4030	C	SER	C	141	-47.647	-7.137	41.703	1	208.28	C
ATOM	4031	O	SER	C	141	-47.268	-7.693	42.74	1	192.42	O
ATOM	4032	N	GLY	C	142	-47.827	-5.813	41.66	1	195.53	N
ATOM	4033	CA	GLY	C	142	-48.337	-5.059	40.506	1	185.4	C
ATOM	4034	C	GLY	C	142	-47.349	-4.014	40.034	1	169.25	C
ATOM	4035	O	GLY	C	142	-47.68	-2.829	39.979	1	158.22	O
ATOM	4036	N	GLY	C	143	-46.138	-4.449	39.694	1	157.59	N
ATOM	4037	CA	GLY	C	143	-45.105	-3.546	39.197	1	164.41	C
ATOM	4038	C	GLY	C	143	-45.507	-2.844	37.91	1	172.25	C
ATOM	4039	O	GLY	C	143	-45.416	-1.614	37.811	1	156.95	O
ATOM	4040	N	THR	C	144	-45.952	-3.636	36.933	1	183.58	N
ATOM	4041	CA	THR	C	144	-46.501	-3.149	35.646	1	191.24	C
ATOM	4042	CB	THR	C	144	-47.846	-2.393	35.84	1	193.93	C
ATOM	4043	OG1	THR	C	144	-47.65	-1.196	36.601	1	201.44	O
ATOM	4044	CG2	THR	C	144	-48.867	-3.294	36.548	1	191.09	C
ATOM	4045	C	THR	C	144	-45.491	-2.389	34.739	1	183.03	C

ATOM	4046	O	THR	C	144	-44.392	-2.019	35.174	1	170.42	O
ATOM	4047	N	ALA	C	145	-45.884	-2.165	33.48	1	172.35	N
ATOM	4048	CA	ALA	C	145	-44.951	-1.858	32.374	1	159.74	C
ATOM	4049	CB	ALA	C	145	-45.452	-2.527	31.1	1	154.62	C
ATOM	4050	C	ALA	C	145	-44.661	-0.37	32.095	1	149.87	C
ATOM	4051	O	ALA	C	145	-45.533	0.348	31.595	1	123.35	O
ATOM	4052	N	ALA	C	146	-43.417	0.05	32.371	1	158.94	N
ATOM	4053	CA	ALA	C	146	-42.93	1.432	32.153	1	167.68	C
ATOM	4054	CB	ALA	C	146	-42.538	2.054	33.488	1	167.55	C
ATOM	4055	C	ALA	C	146	-41.748	1.525	31.149	1	162.29	C
ATOM	4056	O	ALA	C	146	-40.618	1.153	31.48	1	168.81	O
ATOM	4057	N	LEU	C	147	-42.002	2.064	29.952	1	152	N
ATOM	4058	CA	LEU	C	147	-41.059	1.964	28.818	1	157.02	C
ATOM	4059	CB	LEU	C	147	-41.545	0.881	27.839	1	166.57	C
ATOM	4060	CG	LEU	C	147	-42.968	0.987	27.256	1	168.72	C
ATOM	4061	CD1	LEU	C	147	-42.951	1.239	25.752	1	162.74	C
ATOM	4062	CD2	LEU	C	147	-43.792	-0.26	27.562	1	174.5	C
ATOM	4063	C	LEU	C	147	-40.818	3.289	28.073	1	155.64	C
ATOM	4064	O	LEU	C	147	-41.635	3.717	27.258	1	136.62	O
ATOM	4065	N	GLY	C	148	-39.671	3.915	28.328	1	162.57	N
ATOM	4066	CA	GLY	C	148	-39.377	5.246	27.787	1	160.75	C
ATOM	4067	C	GLY	C	148	-38.97	5.329	26.321	1	154.69	C
ATOM	4068	O	GLY	C	148	-38.972	4.324	25.608	1	152.44	O
ATOM	4069	N	CYS	C	149	-38.63	6.548	25.889	1	141.85	N
ATOM	4070	CA	CYS	C	149	-38.315	6.87	24.488	1	131.26	C
ATOM	4071	CB	CYS	C	149	-39.608	7.142	23.714	1	129.4	C
ATOM	4072	SG	CYS	C	149	-39.945	6.018	22.348	1	151.78	S
ATOM	4073	C	CYS	C	149	-37.395	8.083	24.377	1	129.38	C
ATOM	4074	O	CYS	C	149	-37.648	8.979	23.568	1	119.44	O
ATOM	4075	N	LEU	C	150	-36.319	8.081	25.169	1	135.84	N
ATOM	4076	CA	LEU	C	150	-35.36	9.207	25.264	1	144.88	C
ATOM	4077	CB	LEU	C	150	-34.049	8.739	25.938	1	148.25	C
ATOM	4078	CG	LEU	C	150	-32.755	9.58	25.864	1	149.8	C
ATOM	4079	CD1	LEU	C	150	-32.924	10.924	26.546	1	156.25	C
ATOM	4080	CD2	LEU	C	150	-31.576	8.844	26.488	1	151.7	C
ATOM	4081	C	LEU	C	150	-35.044	9.892	23.916	1	152.76	C
ATOM	4082	O	LEU	C	150	-34.807	9.221	22.907	1	167.55	O
ATOM	4083	N	VAL	C	151	-35.068	11.229	23.926	1	149.6	N
ATOM	4084	CA	VAL	C	151	-34.715	12.081	22.778	1	138.02	C
ATOM	4085	CB	VAL	C	151	-35.995	12.772	22.216	1	129.34	C
ATOM	4086	CG1	VAL	C	151	-35.705	14.093	21.512	1	132.62	C
ATOM	4087	CG2	VAL	C	151	-36.755	11.826	21.289	1	119.84	C
ATOM	4088	C	VAL	C	151	-33.633	13.081	23.25	1	134.11	C
ATOM	4089	O	VAL	C	151	-33.941	14.045	23.955	1	119.47	O

ATOM	4090	N	LYS	C	152	-32.378	12.835	22.85	1	141.35	N
ATOM	4091	CA	LYS	C	152	-31.206	13.534	23.402	1	142.86	C
ATOM	4092	CB	LYS	C	152	-30.311	12.529	24.119	1	139.65	C
ATOM	4093	CG	LYS	C	152	-29.262	13.174	25.006	1	141.51	C
ATOM	4094	CD	LYS	C	152	-29.027	12.364	26.272	1	152.32	C
ATOM	4095	CE	LYS	C	152	-28.323	13.19	27.333	1	163.02	C
ATOM	4096	NZ	LYS	C	152	-26.875	13.361	27.038	1	169.22	N
ATOM	4097	C	LYS	C	152	-30.377	14.287	22.357	1	145.88	C
ATOM	4098	O	LYS	C	152	-30.197	13.804	21.242	1	136.66	O
ATOM	4099	N	ASP	C	153	-29.871	15.46	22.75	1	157.11	N
ATOM	4100	CA	ASP	C	153	-29.024	16.332	21.91	1	161.14	C
ATOM	4101	CB	ASP	C	153	-27.642	15.705	21.688	1	172.17	C
ATOM	4102	CG	ASP	C	153	-26.783	15.733	22.944	1	187.25	C
ATOM	4103	OD1	ASP	C	153	-26.515	16.838	23.471	1	199.85	O
ATOM	4104	OD2	ASP	C	153	-26.374	14.648	23.406	1	196.67	O
ATOM	4105	C	ASP	C	153	-29.664	16.765	20.583	1	157.5	C
ATOM	4106	O	ASP	C	153	-29.492	16.115	19.553	1	136.88	O
ATOM	4107	N	TYR	C	154	-30.392	17.88	20.639	1	169.41	N
ATOM	4108	CA	TYR	C	154	-31.095	18.447	19.483	1	171.17	C
ATOM	4109	CB	TYR	C	154	-32.441	17.749	19.301	1	172.13	C
ATOM	4110	CG	TYR	C	154	-33.434	18.055	20.403	1	172.08	C
ATOM	4111	CD1	TYR	C	154	-33.277	17.522	21.688	1	163.24	C
ATOM	4112	CE1	TYR	C	154	-34.184	17.804	22.695	1	160.85	C
ATOM	4113	CZ	TYR	C	154	-35.265	18.628	22.427	1	162.29	C
ATOM	4114	OH	TYR	C	154	-36.167	18.913	23.417	1	177.14	O
ATOM	4115	CE2	TYR	C	154	-35.443	19.169	21.167	1	163.32	C
ATOM	4116	CD2	TYR	C	154	-34.531	18.883	20.165	1	171.29	C
ATOM	4117	C	TYR	C	154	-31.3	19.966	19.634	1	170.99	C
ATOM	4118	O	TYR	C	154	-31.15	20.518	20.729	1	171.08	O
ATOM	4119	N	PHE	C	155	-31.649	20.625	18.529	1	165.59	N
ATOM	4120	CA	PHE	C	155	-31.737	22.092	18.471	1	162.11	C
ATOM	4121	CB	PHE	C	155	-30.316	22.691	18.368	1	158.39	C
ATOM	4122	CG	PHE	C	155	-30.163	24.064	18.987	1	162.29	C
ATOM	4123	CD1	PHE	C	155	-30.373	25.218	18.227	1	167.11	C
ATOM	4124	CE1	PHE	C	155	-30.215	26.485	18.787	1	160.24	C
ATOM	4125	CZ	PHE	C	155	-29.833	26.614	20.118	1	155.5	C
ATOM	4126	CE2	PHE	C	155	-29.608	25.477	20.884	1	152.04	C
ATOM	4127	CD2	PHE	C	155	-29.766	24.21	20.32	1	155.78	C
ATOM	4128	C	PHE	C	155	-32.582	22.491	17.244	1	163.18	C
ATOM	4129	O	PHE	C	155	-32.482	21.833	16.207	1	162.81	O
ATOM	4130	N	PRO	C	156	-33.443	23.509	17.332	1	167.21	N
ATOM	4131	CA	PRO	C	156	-33.869	24.187	18.558	1	166.26	C
ATOM	4132	CB	PRO	C	156	-34.324	25.538	18.023	1	167.9	C
ATOM	4133	CG	PRO	C	156	-34.937	25.198	16.695	1	161.82	C

ATOM	4134	CD	PRO	C	156	-34.205	23.991	16.165	1	160.92	C
ATOM	4135	C	PRO	C	156	-35.066	23.453	19.163	1	157.54	C
ATOM	4136	O	PRO	C	156	-35.502	22.44	18.598	1	166.31	O
ATOM	4137	N	GLU	C	157	-35.62	23.962	20.266	1	135.13	N
ATOM	4138	CA	GLU	C	157	-36.963	23.529	20.672	1	135.74	C
ATOM	4139	CB	GLU	C	157	-37.349	24.059	22.065	1	145.91	C
ATOM	4140	CG	GLU	C	157	-36.979	23.143	23.243	1	151.84	C
ATOM	4141	CD	GLU	C	157	-38.175	22.51	23.97	1	152.05	C
ATOM	4142	OE1	GLU	C	157	-38.959	21.747	23.355	1	136.15	O
ATOM	4143	OE2	GLU	C	157	-38.317	22.766	25.19	1	150.08	O
ATOM	4144	C	GLU	C	157	-37.937	24.027	19.584	1	131.72	C
ATOM	4145	O	GLU	C	157	-37.64	25.035	18.943	1	150.43	O
ATOM	4146	N	PRO	C	158	-39.077	23.369	19.353	1	125.32	N
ATOM	4147	CA	PRO	C	158	-39.588	22.279	20.167	1	133.27	C
ATOM	4148	CB	PRO	C	158	-41.016	22.752	20.48	1	132.4	C
ATOM	4149	CG	PRO	C	158	-41.362	23.738	19.392	1	126.88	C
ATOM	4150	CD	PRO	C	158	-40.156	23.907	18.509	1	121.87	C
ATOM	4151	C	PRO	C	158	-39.605	20.933	19.427	1	142.11	C
ATOM	4152	O	PRO	C	158	-39.225	20.86	18.253	1	146.9	O
ATOM	4153	N	VAL	C	159	-40.061	19.891	20.124	1	140.76	N
ATOM	4154	CA	VAL	C	159	-40.098	18.519	19.599	1	141.11	C
ATOM	4155	CB	VAL	C	159	-39	17.606	20.218	1	141.99	C
ATOM	4156	CG1	VAL	C	159	-37.76	17.565	19.345	1	138.16	C
ATOM	4157	CG2	VAL	C	159	-38.646	18.03	21.636	1	143.77	C
ATOM	4158	C	VAL	C	159	-41.457	17.888	19.884	1	135.7	C
ATOM	4159	O	VAL	C	159	-41.832	17.725	21.048	1	147.74	O
ATOM	4160	N	THR	C	160	-42.182	17.533	18.825	1	124.84	N
ATOM	4161	CA	THR	C	160	-43.447	16.809	18.955	1	133.05	C
ATOM	4162	CB	THR	C	160	-44.233	16.797	17.615	1	138.87	C
ATOM	4163	OG1	THR	C	160	-44.212	18.103	17.021	1	141.88	O
ATOM	4164	CG2	THR	C	160	-45.692	16.352	17.806	1	136.29	C
ATOM	4165	C	THR	C	160	-43.157	15.366	19.392	1	137.14	C
ATOM	4166	O	THR	C	160	-42.212	14.758	18.903	1	130.72	O
ATOM	4167	N	VAL	C	161	-43.942	14.844	20.338	1	154.03	N
ATOM	4168	CA	VAL	C	161	-43.945	13.408	20.67	1	156.53	C
ATOM	4169	CB	VAL	C	161	-43.278	13.098	22.028	1	145.69	C
ATOM	4170	CG1	VAL	C	161	-43.186	11.586	22.241	1	142.33	C
ATOM	4171	CG2	VAL	C	161	-41.905	13.752	22.123	1	138.89	C
ATOM	4172	C	VAL	C	161	-45.39	12.919	20.731	1	170.48	C
ATOM	4173	O	VAL	C	161	-46.213	13.49	21.456	1	190.82	O
ATOM	4174	N	SER	C	162	-45.685	11.863	19.977	1	161.86	N
ATOM	4175	CA	SER	C	162	-47.021	11.273	19.944	1	162.14	C
ATOM	4176	CB	SER	C	162	-47.916	11.986	18.912	1	160.87	C
ATOM	4177	OG	SER	C	162	-47.18	12.456	17.79	1	157.28	O

ATOM	4178	C	SER	C	162	-46.89	9.782	19.644	1	164.06	C
ATOM	4179	O	SER	C	162	-46.515	9.396	18.538	1	178.14	O
ATOM	4180	N	TRP	C	163	-47.213	8.953	20.632	1	153.47	N
ATOM	4181	CA	TRP	C	163	-46.923	7.523	20.571	1	142.14	C
ATOM	4182	CB	TRP	C	163	-46.871	6.912	21.965	1	130.89	C
ATOM	4183	CG	TRP	C	163	-45.764	7.416	22.79	1	126.76	C
ATOM	4184	CD1	TRP	C	163	-45.52	8.714	23.134	1	129.96	C
ATOM	4185	NE1	TRP	C	163	-44.405	8.793	23.922	1	137.91	N
ATOM	4186	CE2	TRP	C	163	-43.902	7.534	24.109	1	133.07	C
ATOM	4187	CD2	TRP	C	163	-44.738	6.638	23.409	1	127.7	C
ATOM	4188	CE3	TRP	C	163	-44.436	5.27	23.438	1	128.5	C
ATOM	4189	CZ3	TRP	C	163	-43.31	4.845	24.157	1	128.81	C
ATOM	4190	CH2	TRP	C	163	-42.501	5.764	24.845	1	124.29	C
ATOM	4191	CZ2	TRP	C	163	-42.782	7.109	24.835	1	128.91	C
ATOM	4192	C	TRP	C	163	-48.004	6.823	19.785	1	147.97	C
ATOM	4193	O	TRP	C	163	-49.193	7.057	20.023	1	156.12	O
ATOM	4194	N	ASN	C	164	-47.585	5.965	18.858	1	149.6	N
ATOM	4195	CA	ASN	C	164	-48.501	5.164	18.042	1	161.35	C
ATOM	4196	CB	ASN	C	164	-49.247	4.119	18.909	1	161.06	C
ATOM	4197	CG	ASN	C	164	-48.319	3.317	19.827	1	166.39	C
ATOM	4198	OD1	ASN	C	164	-47.219	3.755	20.174	1	166.95	O
ATOM	4199	ND2	ASN	C	164	-48.777	2.137	20.239	1	163.18	N
ATOM	4200	C	ASN	C	164	-49.503	6.028	17.25	1	163.61	C
ATOM	4201	O	ASN	C	164	-50.658	5.63	17.061	1	176.21	O
ATOM	4202	N	SER	C	165	-49.049	7.205	16.803	1	150.68	N
ATOM	4203	CA	SER	C	165	-49.847	8.133	15.987	1	144.86	C
ATOM	4204	CB	SER	C	165	-50.145	7.515	14.61	1	149.24	C
ATOM	4205	OG	SER	C	165	-48.953	7.059	13.99	1	156.49	O
ATOM	4206	C	SER	C	165	-51.138	8.614	16.666	1	139.05	C
ATOM	4207	O	SER	C	165	-52.237	8.477	16.115	1	130.43	O
ATOM	4208	N	GLY	C	166	-50.987	9.186	17.86	1	141.57	N
ATOM	4209	CA	GLY	C	166	-52.117	9.723	18.619	1	149.17	C
ATOM	4210	C	GLY	C	166	-53.125	8.651	18.995	1	153.14	C
ATOM	4211	O	GLY	C	166	-54.237	8.614	18.458	1	150.79	O
ATOM	4212	N	ALA	C	167	-52.72	7.777	19.913	1	153.33	N
ATOM	4213	CA	ALA	C	167	-53.544	6.636	20.329	1	156.09	C
ATOM	4214	CB	ALA	C	167	-53.407	5.496	19.331	1	162.9	C
ATOM	4215	C	ALA	C	167	-53.171	6.167	21.729	1	151.48	C
ATOM	4216	O	ALA	C	167	-54.03	6.099	22.611	1	142.09	O
ATOM	4217	N	LEU	C	168	-51.894	5.828	21.915	1	152.58	N
ATOM	4218	CA	LEU	C	168	-51.334	5.617	23.247	1	159.37	C
ATOM	4219	CB	LEU	C	168	-50.054	4.77	23.187	1	157.05	C
ATOM	4220	CG	LEU	C	168	-49.326	4.341	24.482	1	150.49	C
ATOM	4221	CD1	LEU	C	168	-48.293	5.366	24.954	1	152.03	C

ATOM	4222	CD2	LEU	C	168	-50.297	3.98	25.607	1	144.23	C
ATOM	4223	C	LEU	C	168	-51.07	7	23.857	1	171.28	C
ATOM	4224	O	LEU	C	168	-50.126	7.7	23.468	1	178.17	O
ATOM	4225	N	THR	C	169	-51.959	7.398	24.767	1	165.2	N
ATOM	4226	CA	THR	C	169	-51.832	8.633	25.537	1	140.72	C
ATOM	4227	CB	THR	C	169	-52.908	9.672	25.15	1	133.54	C
ATOM	4228	OG1	THR	C	169	-54.197	9.039	25.1	1	125.91	O
ATOM	4229	CG2	THR	C	169	-52.59	10.296	23.795	1	132.89	C
ATOM	4230	C	THR	C	169	-51.962	8.284	27.007	1	136.79	C
ATOM	4231	O	THR	C	169	-50.977	8.348	27.737	1	120.7	O
ATOM	4232	N	SER	C	170	-53.167	7.876	27.418	1	140	N
ATOM	4233	CA	SER	C	170	-53.517	7.728	28.836	1	147.32	C
ATOM	4234	CB	SER	C	170	-54.906	7.097	28.985	1	148.15	C
ATOM	4235	OG	SER	C	170	-55.32	7.126	30.34	1	157.28	O
ATOM	4236	C	SER	C	170	-52.459	6.932	29.608	1	151.23	C
ATOM	4237	O	SER	C	170	-52.523	5.702	29.691	1	170.88	O
ATOM	4238	N	GLY	C	171	-51.488	7.66	30.161	1	145.53	N
ATOM	4239	CA	GLY	C	171	-50.282	7.068	30.74	1	142.66	C
ATOM	4240	C	GLY	C	171	-48.978	7.78	30.4	1	140.93	C
ATOM	4241	O	GLY	C	171	-47.995	7.624	31.129	1	135.26	O
ATOM	4242	N	VAL	C	172	-48.956	8.556	29.31	1	141.13	N
ATOM	4243	CA	VAL	C	172	-47.721	9.198	28.814	1	143.29	C
ATOM	4244	CB	VAL	C	172	-47.844	9.605	27.316	1	147.45	C
ATOM	4245	CG1	VAL	C	172	-46.589	10.325	26.821	1	145.88	C
ATOM	4246	CG2	VAL	C	172	-48.115	8.389	26.43	1	149.45	C
ATOM	4247	C	VAL	C	172	-47.358	10.425	29.658	1	134.26	C
ATOM	4248	O	VAL	C	172	-48.245	11.078	30.213	1	134.52	O
ATOM	4249	N	HIS	C	173	-46.056	10.709	29.766	1	127.81	N
ATOM	4250	CA	HIS	C	173	-45.557	11.948	30.381	1	133.54	C
ATOM	4251	CB	HIS	C	173	-45.103	11.71	31.835	1	133.38	C
ATOM	4252	CG	HIS	C	173	-46.217	11.487	32.814	1	133.94	C
ATOM	4253	ND1	HIS	C	173	-47.433	12.137	32.735	1	133.69	N
ATOM	4254	CE1	HIS	C	173	-48.192	11.763	33.748	1	141.48	C
ATOM	4255	NE2	HIS	C	173	-47.508	10.91	34.491	1	141.89	N
ATOM	4256	CD2	HIS	C	173	-46.267	10.727	33.935	1	129.73	C
ATOM	4257	C	HIS	C	173	-44.404	12.56	29.567	1	133.71	C
ATOM	4258	O	HIS	C	173	-43.26	12.601	30.029	1	134.4	O
ATOM	4259	N	THR	C	174	-44.724	13.055	28.368	1	131.68	N
ATOM	4260	CA	THR	C	174	-43.747	13.692	27.47	1	120	C
ATOM	4261	CB	THR	C	174	-44.423	14.143	26.147	1	115.69	C
ATOM	4262	OG1	THR	C	174	-45.083	13.031	25.532	1	103.26	O
ATOM	4263	CG2	THR	C	174	-43.415	14.711	25.162	1	120.68	C
ATOM	4264	C	THR	C	174	-43.11	14.896	28.18	1	118.83	C
ATOM	4265	O	THR	C	174	-43.607	16.013	28.066	1	131.04	O

ATOM	4266	N	PHE	C	175	-42.02	14.642	28.912	1	114.98	N
ATOM	4267	CA	PHE	C	175	-41.318	15.648	29.754	1	116.82	C
ATOM	4268	CB	PHE	C	175	-39.98	15.078	30.275	1	116.47	C
ATOM	4269	CG	PHE	C	175	-40.103	14.243	31.521	1	117.66	C
ATOM	4270	CD1	PHE	C	175	-40.48	12.9	31.454	1	112.88	C
ATOM	4271	CE1	PHE	C	175	-40.588	12.135	32.612	1	109.23	C
ATOM	4272	CZ	PHE	C	175	-40.303	12.698	33.85	1	104.65	C
ATOM	4273	CE2	PHE	C	175	-39.914	14.025	33.925	1	109.5	C
ATOM	4274	CD2	PHE	C	175	-39.806	14.79	32.77	1	115.64	C
ATOM	4275	C	PHE	C	175	-40.995	16.968	29.035	1	125.81	C
ATOM	4276	O	PHE	C	175	-40.957	17.009	27.801	1	133.86	O
ATOM	4277	N	PRO	C	176	-40.739	18.048	29.803	1	131.75	N
ATOM	4278	CA	PRO	C	176	-40.207	19.252	29.179	1	131.97	C
ATOM	4279	CB	PRO	C	176	-40.546	20.344	30.19	1	130.05	C
ATOM	4280	CG	PRO	C	176	-40.478	19.655	31.505	1	131.6	C
ATOM	4281	CD	PRO	C	176	-40.834	18.203	31.267	1	133.22	C
ATOM	4282	C	PRO	C	176	-38.697	19.125	28.998	1	133.07	C
ATOM	4283	O	PRO	C	176	-38.032	18.423	29.768	1	123.74	O
ATOM	4284	N	ALA	C	177	-38.17	19.804	27.985	1	139.71	N
ATOM	4285	CA	ALA	C	177	-36.743	19.755	27.683	1	141.71	C
ATOM	4286	CB	ALA	C	177	-36.47	20.272	26.274	1	139.24	C
ATOM	4287	C	ALA	C	177	-35.92	20.548	28.691	1	143.3	C
ATOM	4288	O	ALA	C	177	-36.421	21.462	29.351	1	143.05	O
ATOM	4289	N	VAL	C	178	-34.651	20.178	28.805	1	147.94	N
ATOM	4290	CA	VAL	C	178	-33.667	20.997	29.503	1	151.53	C
ATOM	4291	CB	VAL	C	178	-33.417	20.535	30.956	1	144.69	C
ATOM	4292	CG1	VAL	C	178	-34.644	20.818	31.817	1	142.23	C
ATOM	4293	CG2	VAL	C	178	-33.037	19.063	31.024	1	146.38	C
ATOM	4294	C	VAL	C	178	-32.373	21.038	28.691	1	153.58	C
ATOM	4295	O	VAL	C	178	-31.882	20.01	28.212	1	140.92	O
ATOM	4296	N	LEU	C	179	-31.853	22.253	28.525	1	159.57	N
ATOM	4297	CA	LEU	C	179	-30.659	22.501	27.735	1	153.86	C
ATOM	4298	CB	LEU	C	179	-30.505	23.999	27.444	1	155.31	C
ATOM	4299	CG	LEU	C	179	-29.644	24.359	26.233	1	158.47	C
ATOM	4300	CD1	LEU	C	179	-30.441	24.16	24.951	1	159.83	C
ATOM	4301	CD2	LEU	C	179	-29.117	25.787	26.325	1	155.27	C
ATOM	4302	C	LEU	C	179	-29.469	22.004	28.53	1	150.18	C
ATOM	4303	O	LEU	C	179	-29.377	22.271	29.73	1	146.81	O
ATOM	4304	N	GLN	C	180	-28.584	21.262	27.87	1	147.67	N
ATOM	4305	CA	GLN	C	180	-27.357	20.785	28.492	1	149.9	C
ATOM	4306	CB	GLN	C	180	-27.07	19.352	28.074	1	158.55	C
ATOM	4307	CG	GLN	C	180	-28.109	18.377	28.602	1	169.4	C
ATOM	4308	CD	GLN	C	180	-27.884	16.954	28.149	1	179.92	C
ATOM	4309	OE1	GLN	C	180	-27.873	16.028	28.967	1	179.58	O

ATOM	4310	NE2	GLN	C	180	-27.711	16.766	26.841	1	183.74	N
ATOM	4311	C	GLN	C	180	-26.225	21.712	28.098	1	153.71	C
ATOM	4312	O	GLN	C	180	-26.134	22.113	26.932	1	146.62	O
ATOM	4313	N	SER	C	181	-25.368	22.046	29.071	1	159.94	N
ATOM	4314	CA	SER	C	181	-24.346	23.101	28.919	1	152.99	C
ATOM	4315	CB	SER	C	181	-23.253	23.004	30.007	1	147.43	C
ATOM	4316	OG	SER	C	181	-22.956	21.662	30.352	1	144.67	O
ATOM	4317	C	SER	C	181	-23.745	23.113	27.515	1	144.93	C
ATOM	4318	O	SER	C	181	-23.617	24.178	26.907	1	135.03	O
ATOM	4319	N	SER	C	182	-23.435	21.919	27.001	1	143.08	N
ATOM	4320	CA	SER	C	182	-22.999	21.724	25.615	1	147.38	C
ATOM	4321	CB	SER	C	182	-23.352	20.305	25.115	1	150.57	C
ATOM	4322	OG	SER	C	182	-24.75	20.056	25.106	1	144.71	O
ATOM	4323	C	SER	C	182	-23.57	22.78	24.671	1	139.31	C
ATOM	4324	O	SER	C	182	-22.82	23.538	24.066	1	134.89	O
ATOM	4325	N	GLY	C	183	-24.893	22.863	24.607	1	139.55	N
ATOM	4326	CA	GLY	C	183	-25.576	23.753	23.663	1	151.9	C
ATOM	4327	C	GLY	C	183	-26.834	23.146	23.073	1	156.08	C
ATOM	4328	O	GLY	C	183	-27.764	23.866	22.713	1	149.5	O
ATOM	4329	N	LEU	C	184	-26.853	21.821	22.965	1	158.37	N
ATOM	4330	CA	LEU	C	184	-28.007	21.096	22.459	1	163.7	C
ATOM	4331	CB	LEU	C	184	-27.545	19.821	21.74	1	171.44	C
ATOM	4332	CG	LEU	C	184	-26.421	19.973	20.699	1	175.03	C
ATOM	4333	CD1	LEU	C	184	-26.088	18.628	20.066	1	174.36	C
ATOM	4334	CD2	LEU	C	184	-26.783	20.996	19.628	1	178.03	C
ATOM	4335	C	LEU	C	184	-28.956	20.763	23.616	1	165.42	C
ATOM	4336	O	LEU	C	184	-28.523	20.586	24.761	1	169.16	O
ATOM	4337	N	TYR	C	185	-30.251	20.689	23.308	1	165.56	N
ATOM	4338	CA	TYR	C	185	-31.281	20.352	24.303	1	161.59	C
ATOM	4339	CB	TYR	C	185	-32.694	20.693	23.786	1	170.37	C
ATOM	4340	CG	TYR	C	185	-33.176	22.105	24.073	1	176.7	C
ATOM	4341	CD1	TYR	C	185	-33.652	22.456	25.342	1	169.75	C
ATOM	4342	CE1	TYR	C	185	-34.112	23.738	25.603	1	169.58	C
ATOM	4343	CZ	TYR	C	185	-34.108	24.69	24.587	1	169.52	C
ATOM	4344	OH	TYR	C	185	-34.568	25.957	24.841	1	172.02	O
ATOM	4345	CE2	TYR	C	185	-33.657	24.367	23.318	1	168.24	C
ATOM	4346	CD2	TYR	C	185	-33.196	23.082	23.065	1	176	C
ATOM	4347	C	TYR	C	185	-31.242	18.878	24.707	1	144.27	C
ATOM	4348	O	TYR	C	185	-30.545	18.065	24.104	1	120.91	O
ATOM	4349	N	SER	C	186	-31.998	18.555	25.747	1	141.56	N
ATOM	4350	CA	SER	C	186	-32.284	17.17	26.094	1	147.74	C
ATOM	4351	CB	SER	C	186	-31.31	16.662	27.148	1	157.5	C
ATOM	4352	OG	SER	C	186	-31.52	15.281	27.398	1	160.92	O
ATOM	4353	C	SER	C	186	-33.711	17.058	26.601	1	141.74	C

ATOM	4354	O	SER	C	186	-34.242	18.01	27.165	1	139.59	O
ATOM	4355	N	LEU	C	187	-34.304	15.883	26.395	1	139.95	N
ATOM	4356	CA	LEU	C	187	-35.716	15.605	26.707	1	139.4	C
ATOM	4357	CB	LEU	C	187	-36.573	15.853	25.446	1	131.85	C
ATOM	4358	CG	LEU	C	187	-38.094	15.595	25.445	1	124.71	C
ATOM	4359	CD1	LEU	C	187	-38.907	16.677	24.736	1	128.68	C
ATOM	4360	CD2	LEU	C	187	-38.419	14.231	24.847	1	120.58	C
ATOM	4361	C	LEU	C	187	-35.838	14.157	27.2	1	136.83	C
ATOM	4362	O	LEU	C	187	-34.858	13.417	27.187	1	145.75	O
ATOM	4363	N	SER	C	188	-37.011	13.777	27.697	1	135	N
ATOM	4364	CA	SER	C	188	-37.342	12.373	27.952	1	141.67	C
ATOM	4365	CB	SER	C	188	-36.976	11.989	29.395	1	151.37	C
ATOM	4366	OG	SER	C	188	-35.579	12.092	29.635	1	158.52	O
ATOM	4367	C	SER	C	188	-38.833	12.119	27.699	1	140.43	C
ATOM	4368	O	SER	C	188	-39.598	13.042	27.418	1	156.69	O
ATOM	4369	N	SER	C	189	-39.235	10.858	27.783	1	128.53	N
ATOM	4370	CA	SER	C	189	-40.636	10.468	27.627	1	121.22	C
ATOM	4371	CB	SER	C	189	-41.035	10.458	26.138	1	113.18	C
ATOM	4372	OG	SER	C	189	-42.438	10.566	25.966	1	102.37	O
ATOM	4373	C	SER	C	189	-40.802	9.084	28.251	1	123.84	C
ATOM	4374	O	SER	C	189	-39.882	8.273	28.205	1	133.03	O
ATOM	4375	N	VAL	C	190	-41.957	8.829	28.854	1	122.52	N
ATOM	4376	CA	VAL	C	190	-42.225	7.557	29.527	1	119.48	C
ATOM	4377	CB	VAL	C	190	-41.937	7.651	31.045	1	126.33	C
ATOM	4378	CG1	VAL	C	190	-40.527	8.168	31.308	1	123.34	C
ATOM	4379	CG2	VAL	C	190	-42.952	8.539	31.75	1	133.37	C
ATOM	4380	C	VAL	C	190	-43.672	7.147	29.285	1	121.26	C
ATOM	4381	O	VAL	C	190	-44.433	7.894	28.666	1	122.74	O
ATOM	4382	N	VAL	C	191	-44.042	5.963	29.767	1	124.69	N
ATOM	4383	CA	VAL	C	191	-45.42	5.468	29.648	1	135.67	C
ATOM	4384	CB	VAL	C	191	-45.794	5.143	28.162	1	137.87	C
ATOM	4385	CG1	VAL	C	191	-44.629	4.509	27.421	1	141.81	C
ATOM	4386	CG2	VAL	C	191	-47.039	4.262	28.054	1	142.67	C
ATOM	4387	C	VAL	C	191	-45.643	4.253	30.56	1	142.89	C
ATOM	4388	O	VAL	C	191	-44.894	3.284	30.487	1	136.25	O
ATOM	4389	N	THR	C	192	-46.674	4.317	31.407	1	157.31	N
ATOM	4390	CA	THR	C	192	-47.09	3.18	32.237	1	166.18	C
ATOM	4391	CB	THR	C	192	-47.472	3.612	33.678	1	164.61	C
ATOM	4392	OG1	THR	C	192	-48.363	4.734	33.643	1	178.53	O
ATOM	4393	CG2	THR	C	192	-46.234	3.98	34.486	1	153.39	C
ATOM	4394	C	THR	C	192	-48.266	2.427	31.581	1	175.72	C
ATOM	4395	O	THR	C	192	-49.23	3.047	31.111	1	164.46	O
ATOM	4396	N	VAL	C	193	-48.155	1.095	31.546	1	188.46	N
ATOM	4397	CA	VAL	C	193	-49.221	0.178	31.081	1	192.14	C

ATOM	4398	CB	VAL	C	193	-49.154	-0.052	29.543	1	184.51	C
ATOM	4399	CG1	VAL	C	193	-49.99	0.988	28.797	1	180.39	C
ATOM	4400	CG2	VAL	C	193	-47.71	-0.061	29.048	1	179.99	C
ATOM	4401	C	VAL	C	193	-49.104	-1.152	31.864	1	191.07	C
ATOM	4402	O	VAL	C	193	-48.144	-1.32	32.622	1	176.5	O
ATOM	4403	N	PRO	C	194	-50.08	-2.086	31.718	1	183.76	N
ATOM	4404	CA	PRO	C	194	-49.979	-3.38	32.435	1	180.78	C
ATOM	4405	CB	PRO	C	194	-51.241	-4.13	31.982	1	174.71	C
ATOM	4406	CG	PRO	C	194	-52.208	-3.065	31.603	1	169.94	C
ATOM	4407	CD	PRO	C	194	-51.388	-1.939	31.045	1	172.55	C
ATOM	4408	C	PRO	C	194	-48.721	-4.206	32.097	1	183.23	C
ATOM	4409	O	PRO	C	194	-48.167	-4.055	31.006	1	188.08	O
ATOM	4410	N	SER	C	195	-48.279	-5.061	33.026	1	171.04	N
ATOM	4411	CA	SER	C	195	-47.135	-5.971	32.769	1	153.53	C
ATOM	4412	CB	SER	C	195	-46.689	-6.721	34.037	1	150.06	C
ATOM	4413	OG	SER	C	195	-45.473	-6.191	34.538	1	144.16	O
ATOM	4414	C	SER	C	195	-47.441	-6.973	31.655	1	143.73	C
ATOM	4415	O	SER	C	195	-46.566	-7.29	30.845	1	125.29	O
ATOM	4416	N	SER	C	196	-48.691	-7.44	31.615	1	143.45	N
ATOM	4417	CA	SER	C	196	-49.168	-8.35	30.571	1	149.78	C
ATOM	4418	CB	SER	C	196	-50.237	-9.301	31.144	1	150.54	C
ATOM	4419	OG	SER	C	196	-51.433	-8.615	31.474	1	151.97	O
ATOM	4420	C	SER	C	196	-49.689	-7.625	29.312	1	156.48	C
ATOM	4421	O	SER	C	196	-50.569	-8.142	28.619	1	167.66	O
ATOM	4422	N	SER	C	197	-49.163	-6.429	29.031	1	165.75	N
ATOM	4423	CA	SER	C	197	-49.275	-5.796	27.709	1	167.45	C
ATOM	4424	CB	SER	C	197	-50.012	-4.452	27.811	1	172.47	C
ATOM	4425	OG	SER	C	197	-49.419	-3.591	28.77	1	170.85	O
ATOM	4426	C	SER	C	197	-47.899	-5.617	27.026	1	162.33	C
ATOM	4427	O	SER	C	197	-47.837	-5.087	25.913	1	147.93	O
ATOM	4428	N	LEU	C	198	-46.82	-6.09	27.672	1	165.27	N
ATOM	4429	CA	LEU	C	198	-45.428	-5.835	27.227	1	164.63	C
ATOM	4430	CB	LEU	C	198	-44.385	-6.307	28.278	1	167.51	C
ATOM	4431	CG	LEU	C	198	-43.726	-5.324	29.248	1	163.67	C
ATOM	4432	CD1	LEU	C	198	-42.775	-6.076	30.169	1	157.89	C
ATOM	4433	CD2	LEU	C	198	-42.978	-4.224	28.502	1	166.51	C
ATOM	4434	C	LEU	C	198	-45.118	-6.483	25.876	1	162.29	C
ATOM	4435	O	LEU	C	198	-45.043	-5.793	24.862	1	147.74	O
ATOM	4436	N	GLY	C	199	-44.935	-7.805	25.88	1	164.3	N
ATOM	4437	CA	GLY	C	199	-44.617	-8.566	24.674	1	160.52	C
ATOM	4438	C	GLY	C	199	-45.825	-8.761	23.782	1	162.12	C
ATOM	4439	O	GLY	C	199	-45.679	-8.993	22.583	1	173.63	O
ATOM	4440	N	THR	C	200	-47.017	-8.66	24.368	1	164.78	N
ATOM	4441	CA	THR	C	200	-48.274	-8.829	23.639	1	166.87	C

ATOM	4442	CB	THR	C	200	-49.465	-8.998	24.619	1	164.93	C
ATOM	4443	OG1	THR	C	200	-49.619	-7.809	25.399	1	164.38	O
ATOM	4444	CG2	THR	C	200	-49.262	-10.198	25.569	1	155.79	C
ATOM	4445	C	THR	C	200	-48.567	-7.671	22.653	1	172.56	C
ATOM	4446	O	THR	C	200	-49.274	-7.877	21.66	1	161.24	O
ATOM	4447	N	GLN	C	201	-48.029	-6.476	22.931	1	179.78	N
ATOM	4448	CA	GLN	C	201	-48.223	-5.275	22.088	1	179.18	C
ATOM	4449	CB	GLN	C	201	-49.345	-4.389	22.684	1	177.83	C
ATOM	4450	CG	GLN	C	201	-49.347	-2.887	22.357	1	179.53	C
ATOM	4451	CD	GLN	C	201	-49.727	-2.544	20.917	1	178.95	C
ATOM	4452	OE1	GLN	C	201	-49.281	-3.193	19.97	1	185.42	O
ATOM	4453	NE2	GLN	C	201	-50.53	-1.493	20.748	1	168.17	N
ATOM	4454	C	GLN	C	201	-46.901	-4.503	21.919	1	173.15	C
ATOM	4455	O	GLN	C	201	-46.064	-4.489	22.821	1	153.25	O
ATOM	4456	N	THR	C	202	-46.734	-3.874	20.752	1	177.3	N
ATOM	4457	CA	THR	C	202	-45.538	-3.089	20.409	1	171.94	C
ATOM	4458	CB	THR	C	202	-45.109	-3.364	18.947	1	169.89	C
ATOM	4459	OG1	THR	C	202	-45.134	-4.776	18.696	1	167.18	O
ATOM	4460	CG2	THR	C	202	-43.706	-2.835	18.666	1	167.92	C
ATOM	4461	C	THR	C	202	-45.787	-1.584	20.609	1	164.52	C
ATOM	4462	O	THR	C	202	-46.908	-1.102	20.424	1	153.19	O
ATOM	4463	N	TYR	C	203	-44.73	-0.856	20.975	1	163.01	N
ATOM	4464	CA	TYR	C	203	-44.826	0.556	21.342	1	161.66	C
ATOM	4465	CB	TYR	C	203	-44.61	0.709	22.846	1	164.54	C
ATOM	4466	CG	TYR	C	203	-45.642	-0.002	23.706	1	169.73	C
ATOM	4467	CD1	TYR	C	203	-47.007	0.253	23.549	1	177.09	C
ATOM	4468	CE1	TYR	C	203	-47.953	-0.387	24.345	1	174.44	C
ATOM	4469	CZ	TYR	C	203	-47.54	-1.291	25.317	1	163.43	C
ATOM	4470	OH	TYR	C	203	-48.478	-1.926	26.097	1	168.1	O
ATOM	4471	CE2	TYR	C	203	-46.194	-1.556	25.496	1	156.38	C
ATOM	4472	CD2	TYR	C	203	-45.255	-0.914	24.696	1	162.95	C
ATOM	4473	C	TYR	C	203	-43.821	1.432	20.583	1	168.88	C
ATOM	4474	O	TYR	C	203	-42.641	1.089	20.47	1	155.36	O
ATOM	4475	N	ILE	C	204	-44.313	2.584	20.119	1	182.51	N
ATOM	4476	CA	ILE	C	204	-43.621	3.488	19.182	1	182.92	C
ATOM	4477	CB	ILE	C	204	-44.359	3.542	17.808	1	182.12	C
ATOM	4478	CG1	ILE	C	204	-45.09	2.225	17.478	1	172.76	C
ATOM	4479	CD1	ILE	C	204	-46.016	2.321	16.28	1	168.6	C
ATOM	4480	CG2	ILE	C	204	-43.393	3.92	16.692	1	183.9	C
ATOM	4481	C	ILE	C	204	-43.635	4.921	19.739	1	173.41	C
ATOM	4482	O	ILE	C	204	-44.568	5.27	20.461	1	194.57	O
ATOM	4483	N	CYS	C	205	-42.643	5.753	19.399	1	143.93	N
ATOM	4484	CA	CYS	C	205	-42.753	7.214	19.638	1	138.92	C
ATOM	4485	CB	CYS	C	205	-41.903	7.666	20.823	1	140.08	C

ATOM	4486	SG	CYS	C	205	-40.156	7.251	20.747	1	137.25	S
ATOM	4487	C	CYS	C	205	-42.427	8.07	18.415	1	129.92	C
ATOM	4488	O	CYS	C	205	-41.265	8.218	18.048	1	122.7	O
ATOM	4489	N	ASN	C	206	-43.462	8.676	17.829	1	129.97	N
ATOM	4490	CA	ASN	C	206	-43.329	9.429	16.575	1	141.7	C
ATOM	4491	CB	ASN	C	206	-44.704	9.604	15.886	1	147.37	C
ATOM	4492	CG	ASN	C	206	-45.459	8.292	15.694	1	154.71	C
ATOM	4493	OD1	ASN	C	206	-46.687	8.285	15.617	1	156.09	O
ATOM	4494	ND2	ASN	C	206	-44.735	7.184	15.617	1	163.48	N
ATOM	4495	C	ASN	C	206	-42.652	10.807	16.764	1	143.29	C
ATOM	4496	O	ASN	C	206	-43.34	11.836	16.844	1	158.59	O
ATOM	4497	N	VAL	C	207	-41.314	10.827	16.821	1	125.94	N
ATOM	4498	CA	VAL	C	207	-40.557	12.08	17.038	1	115.45	C
ATOM	4499	CB	VAL	C	207	-39.131	11.851	17.634	1	105.33	C
ATOM	4500	CG1	VAL	C	207	-38.424	13.174	17.95	1	95.26	C
ATOM	4501	CG2	VAL	C	207	-39.199	11.009	18.898	1	110.13	C
ATOM	4502	C	VAL	C	207	-40.487	12.882	15.73	1	117.17	C
ATOM	4503	O	VAL	C	207	-39.637	12.634	14.877	1	122.5	O
ATOM	4504	N	ASN	C	208	-41.407	13.832	15.582	1	118.61	N
ATOM	4505	CA	ASN	C	208	-41.333	14.835	14.517	1	127.07	C
ATOM	4506	CB	ASN	C	208	-42.714	15.474	14.251	1	137.63	C
ATOM	4507	CG	ASN	C	208	-43.36	14.978	12.962	1	154.24	C
ATOM	4508	OD1	ASN	C	208	-43.645	15.769	12.054	1	157.92	O
ATOM	4509	ND2	ASN	C	208	-43.597	13.666	12.875	1	159.6	N
ATOM	4510	C	ASN	C	208	-40.286	15.923	14.81	1	126.37	C
ATOM	4511	O	ASN	C	208	-39.674	15.96	15.884	1	119.43	O
ATOM	4512	N	HIS	C	209	-40.078	16.783	13.814	1	134.57	N
ATOM	4513	CA	HIS	C	209	-39.191	17.952	13.897	1	141.15	C
ATOM	4514	CB	HIS	C	209	-37.716	17.523	13.974	1	142.13	C
ATOM	4515	CG	HIS	C	209	-36.862	18.401	14.834	1	137.32	C
ATOM	4516	ND1	HIS	C	209	-35.909	19.252	14.319	1	138.36	N
ATOM	4517	CE1	HIS	C	209	-35.299	19.876	15.311	1	140.12	C
ATOM	4518	NE2	HIS	C	209	-35.818	19.456	16.451	1	134.4	N
ATOM	4519	CD2	HIS	C	209	-36.794	18.53	16.178	1	133.31	C
ATOM	4520	C	HIS	C	209	-39.433	18.75	12.617	1	144.53	C
ATOM	4521	O	HIS	C	209	-39.255	18.212	11.53	1	161.6	O
ATOM	4522	N	LYS	C	210	-39.908	19.987	12.731	1	150.09	N
ATOM	4523	CA	LYS	C	210	-40.047	20.877	11.561	1	157.58	C
ATOM	4524	CB	LYS	C	210	-41.217	21.861	11.741	1	163.29	C
ATOM	4525	CG	LYS	C	210	-42.582	21.211	11.545	1	175.24	C
ATOM	4526	CD	LYS	C	210	-43.687	22.219	11.25	1	186.98	C
ATOM	4527	CE	LYS	C	210	-44.875	21.551	10.566	1	193.68	C
ATOM	4528	NZ	LYS	C	210	-45.942	22.525	10.211	1	198.18	N
ATOM	4529	C	LYS	C	210	-38.765	21.621	11.131	1	160.96	C

ATOM	4530	O	LYS	C	210	-38.635	21.93	9.935	1	156.33	O
ATOM	4531	N	PRO	C	211	-37.83	21.921	12.079	1	153.78	N
ATOM	4532	CA	PRO	C	211	-36.565	22.583	11.708	1	156.44	C
ATOM	4533	CB	PRO	C	211	-35.746	22.488	12.998	1	145.38	C
ATOM	4534	CG	PRO	C	211	-36.78	22.607	14.053	1	139.79	C
ATOM	4535	CD	PRO	C	211	-37.934	21.799	13.548	1	138.96	C
ATOM	4536	C	PRO	C	211	-35.836	21.925	10.524	1	168.03	C
ATOM	4537	O	PRO	C	211	-35.385	22.626	9.614	1	171.26	O
ATOM	4538	N	SER	C	212	-35.726	20.594	10.564	1	172.62	N
ATOM	4539	CA	SER	C	212	-35.299	19.754	9.434	1	154.85	C
ATOM	4540	CB	SER	C	212	-33.998	19.009	9.772	1	148.79	C
ATOM	4541	OG	SER	C	212	-33.917	18.689	11.161	1	142.87	O
ATOM	4542	C	SER	C	212	-36.444	18.775	9.172	1	149.36	C
ATOM	4543	O	SER	C	212	-37.182	18.462	10.088	1	150.09	O
ATOM	4544	N	ASN	C	213	-36.593	18.287	7.941	1	155.84	N
ATOM	4545	CA	ASN	C	213	-37.742	17.41	7.571	1	156.91	C
ATOM	4546	CB	ASN	C	213	-37.693	17.01	6.073	1	166.3	C
ATOM	4547	CG	ASN	C	213	-37.544	18.201	5.124	1	164.6	C
ATOM	4548	OD1	ASN	C	213	-36.746	18.16	4.182	1	151.96	O
ATOM	4549	ND2	ASN	C	213	-38.305	19.261	5.368	1	171.03	N
ATOM	4550	C	ASN	C	213	-37.891	16.119	8.431	1	147.9	C
ATOM	4551	O	ASN	C	213	-38.965	15.499	8.434	1	125.06	O
ATOM	4552	N	THR	C	214	-36.796	15.722	9.103	1	147.28	N
ATOM	4553	CA	THR	C	214	-36.715	14.586	10.064	1	139.72	C
ATOM	4554	CB	THR	C	214	-35.608	14.76	11.165	1	128.47	C
ATOM	4555	OG1	THR	C	214	-36.02	14.106	12.375	1	115.55	O
ATOM	4556	CG2	THR	C	214	-35.317	16.199	11.508	1	120.24	C
ATOM	4557	C	THR	C	214	-37.969	14.112	10.815	1	145.83	C
ATOM	4558	O	THR	C	214	-38.768	14.9	11.313	1	146.79	O
ATOM	4559	N	LYS	C	215	-38.061	12.789	10.913	1	153.09	N
ATOM	4560	CA	LYS	C	215	-39.073	12.067	11.671	1	146.15	C
ATOM	4561	CB	LYS	C	215	-40.217	11.629	10.755	1	145.82	C
ATOM	4562	CG	LYS	C	215	-41.157	12.734	10.295	1	141.73	C
ATOM	4563	CD	LYS	C	215	-41.91	12.309	9.045	1	143.84	C
ATOM	4564	CE	LYS	C	215	-43.342	12.804	9.043	1	151.09	C
ATOM	4565	NZ	LYS	C	215	-44.086	12.254	7.879	1	157.97	N
ATOM	4566	C	LYS	C	215	-38.383	10.822	12.24	1	147.22	C
ATOM	4567	O	LYS	C	215	-37.316	10.419	11.76	1	147.9	O
ATOM	4568	N	VAL	C	216	-38.998	10.202	13.238	1	144.91	N
ATOM	4569	CA	VAL	C	216	-38.441	9.001	13.866	1	143.44	C
ATOM	4570	CB	VAL	C	216	-37.397	9.389	14.972	1	135.28	C
ATOM	4571	CG1	VAL	C	216	-37.364	8.405	16.146	1	138.38	C
ATOM	4572	CG2	VAL	C	216	-35.996	9.552	14.38	1	129.73	C
ATOM	4573	C	VAL	C	216	-39.603	8.141	14.389	1	151.5	C

ATOM	4574	O	VAL	C	216	-40.655	8.668	14.74	1	158.58	O
ATOM	4575	N	ASP	C	217	-39.419	6.819	14.362	1	160.08	N
ATOM	4576	CA	ASP	C	217	-40.257	5.851	15.09	1	163.77	C
ATOM	4577	CB	ASP	C	217	-41.1	5.014	14.114	1	167.22	C
ATOM	4578	CG	ASP	C	217	-42.155	5.841	13.363	1	166.66	C
ATOM	4579	OD1	ASP	C	217	-41.81	6.876	12.755	1	167.98	O
ATOM	4580	OD2	ASP	C	217	-43.338	5.439	13.36	1	161.09	O
ATOM	4581	C	ASP	C	217	-39.286	4.963	15.896	1	168.32	C
ATOM	4582	O	ASP	C	217	-38.104	4.891	15.542	1	166.27	O
ATOM	4583	N	LYS	C	218	-39.749	4.312	16.974	1	178.27	N
ATOM	4584	CA	LYS	C	218	-38.841	3.542	17.864	1	188.56	C
ATOM	4585	CB	LYS	C	218	-38.041	4.514	18.752	1	188.14	C
ATOM	4586	CG	LYS	C	218	-36.738	3.956	19.307	1	185.77	C
ATOM	4587	CD	LYS	C	218	-35.668	3.866	18.23	1	191.55	C
ATOM	4588	CE	LYS	C	218	-34.314	3.526	18.821	1	192.76	C
ATOM	4589	NZ	LYS	C	218	-33.219	3.607	17.815	1	193.39	N
ATOM	4590	C	LYS	C	218	-39.496	2.455	18.757	1	197.46	C
ATOM	4591	O	LYS	C	218	-40.278	2.764	19.667	1	199.28	O
ATOM	4592	N	LYS	C	219	-39.137	1.191	18.5	1	198.58	N
ATOM	4593	CA	LYS	C	219	-39.501	0.053	19.363	1	201.44	C
ATOM	4594	CB	LYS	C	219	-39.546	-1.254	18.548	1	198.22	C
ATOM	4595	CG	LYS	C	219	-39.981	-2.483	19.345	1	192.45	C
ATOM	4596	CD	LYS	C	219	-40.229	-3.707	18.483	1	179.46	C
ATOM	4597	CE	LYS	C	219	-40.494	-4.92	19.36	1	169.79	C
ATOM	4598	NZ	LYS	C	219	-41.181	-6.003	18.608	1	169.35	N
ATOM	4599	C	LYS	C	219	-38.511	-0.069	20.532	1	199.56	C
ATOM	4600	O	LYS	C	219	-37.375	0.416	20.446	1	189.38	O
ATOM	4601	N	VAL	C	220	-38.957	-0.707	21.62	1	193.49	N
ATOM	4602	CA	VAL	C	220	-38.17	-0.842	22.853	1	194.98	C
ATOM	4603	CB	VAL	C	220	-38.603	0.238	23.878	1	200.64	C
ATOM	4604	CG1	VAL	C	220	-37.535	0.414	24.945	1	204.26	C
ATOM	4605	CG2	VAL	C	220	-38.922	1.573	23.201	1	196.37	C
ATOM	4606	C	VAL	C	220	-38.327	-2.235	23.518	1	192.13	C
ATOM	4607	O	VAL	C	220	-39.403	-2.826	23.436	1	203.85	O
ATOM	4608	N	GLU	C	221	-37.254	-2.737	24.159	1	181.11	N
ATOM	4609	CA	GLU	C	221	-37.264	-3.949	25.048	1	165.81	C
ATOM	4610	CB	GLU	C	221	-37.838	-5.178	24.321	1	156.82	C
ATOM	4611	CG	GLU	C	221	-39.245	-5.553	24.797	1	156.2	C
ATOM	4612	CD	GLU	C	221	-40.177	-6.055	23.705	1	155.87	C
ATOM	4613	OE1	GLU	C	221	-41.243	-6.586	24.081	1	151.23	O
ATOM	4614	OE2	GLU	C	221	-39.874	-5.916	22.492	1	152.85	O
ATOM	4615	C	GLU	C	221	-35.877	-4.275	25.681	1	162.36	C
ATOM	4616	O	GLU	C	221	-34.857	-3.808	25.181	1	170.6	O
ATOM	4617	N	PRO	C	222	-35.836	-5.075	26.779	1	160.44	N

ATOM	4618	CA	PRO	C	222	-34.594	-5.182	27.597	1	165.41	C
ATOM	4619	CB	PRO	C	222	-35.091	-5.766	28.934	1	162.16	C
ATOM	4620	CG	PRO	C	222	-36.374	-6.458	28.616	1	160.4	C
ATOM	4621	CD	PRO	C	222	-36.938	-5.884	27.341	1	158.34	C
ATOM	4622	C	PRO	C	222	-33.399	-5.99	27.009	1	172.81	C
ATOM	4623	O	PRO	C	222	-32.435	-5.371	26.545	1	163.68	O
ATOM	4624	N	LYS	C	223	-33.442	-7.328	27.052	1	183.3	N
ATOM	4625	CA	LYS	C	223	-32.365	-8.192	26.515	1	183.5	C
ATOM	4626	CB	LYS	C	223	-31.47	-8.741	27.641	1	183.34	C
ATOM	4627	CG	LYS	C	223	-30.642	-7.708	28.393	1	176.79	C
ATOM	4628	CD	LYS	C	223	-29.577	-8.385	29.256	1	163	C
ATOM	4629	CE	LYS	C	223	-29.205	-7.544	30.47	1	150.37	C
ATOM	4630	NZ	LYS	C	223	-28.244	-8.222	31.382	1	141.35	N
ATOM	4631	C	LYS	C	223	-32.961	-9.361	25.72	1	179.78	C
ATOM	4632	O	LYS	C	223	-32.267	-10.322	25.369	1	165.38	O
TER	4633		LYS	C	223						
ATOM	4634	N	ASN	D	1	-55.031	53.783	29.507	1	136.37	N
ATOM	4635	CA	ASN	D	1	-54.34	52.538	29.034	1	138.56	C
ATOM	4636	CB	ASN	D	1	-52.802	52.684	29.073	1	130.54	C
ATOM	4637	CG	ASN	D	1	-52.272	52.972	30.467	1	128.12	C
ATOM	4638	OD1	ASN	D	1	-52.556	52.242	31.415	1	126.32	O
ATOM	4639	ND2	ASN	D	1	-51.507	54.048	30.6	1	131.51	N
ATOM	4640	C	ASN	D	1	-54.801	51.264	29.763	1	133.03	C
ATOM	4641	O	ASN	D	1	-54.953	50.221	29.123	1	158.2	O
ATOM	4642	N	ILE	D	2	-55.04	51.361	31.077	1	106.26	N
ATOM	4643	CA	ILE	D	2	-55.557	50.255	31.9	1	89.12	C
ATOM	4644	CB	ILE	D	2	-56.841	49.585	31.329	1	93.53	C
ATOM	4645	CG1	ILE	D	2	-57.819	50.58	30.695	1	97.59	C
ATOM	4646	CD1	ILE	D	2	-58.281	51.661	31.636	1	105.26	C
ATOM	4647	CG2	ILE	D	2	-57.528	48.787	32.423	1	95.33	C
ATOM	4648	C	ILE	D	2	-54.549	49.127	32.108	1	76.77	C
ATOM	4649	O	ILE	D	2	-54.323	48.319	31.221	1	67.95	O
ATOM	4650	N	VAL	D	3	-53.97	49.054	33.294	1	74.34	N
ATOM	4651	CA	VAL	D	3	-53.221	47.867	33.697	1	76.46	C
ATOM	4652	CB	VAL	D	3	-51.718	48.139	34.052	1	76.4	C
ATOM	4653	CG1	VAL	D	3	-51.355	49.61	33.934	1	77.69	C
ATOM	4654	CG2	VAL	D	3	-51.3	47.572	35.417	1	79.2	C
ATOM	4655	C	VAL	D	3	-53.995	47.068	34.769	1	80.19	C
ATOM	4656	O	VAL	D	3	-54.54	47.626	35.739	1	77.82	O
ATOM	4657	N	LEU	D	4	-54.004	45.751	34.553	1	78.9	N
ATOM	4658	CA	LEU	D	4	-54.648	44.776	35.403	1	75.59	C
ATOM	4659	CB	LEU	D	4	-55.197	43.656	34.543	1	76.51	C
ATOM	4660	CG	LEU	D	4	-56.487	43.943	33.77	1	81.89	C
ATOM	4661	CD1	LEU	D	4	-56.631	45.397	33.326	1	79.2	C

ATOM	4662	CD2	LEU	D	4	-56.594	42.981	32.584	1	84.46	C
ATOM	4663	C	LEU	D	4	-53.6	44.198	36.307	1	81.9	C
ATOM	4664	O	LEU	D	4	-52.526	43.828	35.839	1	94.41	O
ATOM	4665	N	THR	D	5	-53.902	44.111	37.595	1	86.32	N
ATOM	4666	CA	THR	D	5	-53.006	43.479	38.552	1	92.24	C
ATOM	4667	CB	THR	D	5	-52.411	44.517	39.513	1	100.22	C
ATOM	4668	OG1	THR	D	5	-51.735	45.54	38.757	1	97.94	O
ATOM	4669	CG2	THR	D	5	-51.433	43.846	40.517	1	106.6	C
ATOM	4670	C	THR	D	5	-53.824	42.453	39.306	1	89.38	C
ATOM	4671	O	THR	D	5	-54.766	42.82	40.005	1	97.12	O
ATOM	4672	N	GLN	D	6	-53.49	41.175	39.132	1	86.59	N
ATOM	4673	CA	GLN	D	6	-54.28	40.086	39.702	1	85.82	C
ATOM	4674	CB	GLN	D	6	-54.748	39.088	38.632	1	88.1	C
ATOM	4675	CG	GLN	D	6	-53.712	38.216	37.958	1	94.4	C
ATOM	4676	CD	GLN	D	6	-54.3	37.499	36.743	1	105.84	C
ATOM	4677	OE1	GLN	D	6	-54.608	38.132	35.742	1	106.62	O
ATOM	4678	NE2	GLN	D	6	-54.438	36.177	36.821	1	112.35	N
ATOM	4679	C	GLN	D	6	-53.533	39.393	40.818	1	89.79	C
ATOM	4680	O	GLN	D	6	-52.322	39.578	40.991	1	92.27	O
ATOM	4681	N	SER	D	7	-54.295	38.619	41.589	1	94.28	N
ATOM	4682	CA	SER	D	7	-53.801	37.921	42.778	1	84.14	C
ATOM	4683	CB	SER	D	7	-53.844	38.848	43.978	1	81.37	C
ATOM	4684	OG	SER	D	7	-52.558	38.956	44.544	1	83.87	O
ATOM	4685	C	SER	D	7	-54.686	36.723	43.075	1	79.65	C
ATOM	4686	O	SER	D	7	-55.736	36.56	42.453	1	86.13	O
ATOM	4687	N	PRO	D	8	-54.268	35.854	43.982	1	75.59	N
ATOM	4688	CA	PRO	D	8	-52.91	35.747	44.504	1	77.87	C
ATOM	4689	CB	PRO	D	8	-53.082	34.723	45.616	1	83.77	C
ATOM	4690	CG	PRO	D	8	-54.199	33.842	45.138	1	82.88	C
ATOM	4691	CD	PRO	D	8	-55.036	34.616	44.172	1	78.14	C
ATOM	4692	C	PRO	D	8	-51.981	35.209	43.426	1	77.11	C
ATOM	4693	O	PRO	D	8	-52.469	34.838	42.364	1	85.18	O
ATOM	4694	N	ALA	D	9	-50.67	35.158	43.656	1	75.79	N
ATOM	4695	CA	ALA	D	9	-49.775	34.656	42.599	1	76.38	C
ATOM	4696	CB	ALA	D	9	-48.308	34.947	42.873	1	72.79	C
ATOM	4697	C	ALA	D	9	-50.023	33.178	42.475	1	80.44	C
ATOM	4698	O	ALA	D	9	-50.597	32.732	41.488	1	82.2	O
ATOM	4699	N	SER	D	10	-49.635	32.43	43.499	1	84.95	N
ATOM	4700	CA	SER	D	10	-49.827	30.998	43.504	1	90.74	C
ATOM	4701	CB	SER	D	10	-48.568	30.267	43.981	1	101.39	C
ATOM	4702	OG	SER	D	10	-48.416	29.026	43.293	1	111.07	O
ATOM	4703	C	SER	D	10	-50.973	30.763	44.436	1	92.59	C
ATOM	4704	O	SER	D	10	-51.358	31.659	45.201	1	84.74	O
ATOM	4705	N	LEU	D	11	-51.504	29.549	44.381	1	98.74	N

ATOM	4706	CA	LEU	D	11	-52.729	29.22	45.088	1	98.8	C
ATOM	4707	CB	LEU	D	11	-53.866	30.082	44.545	1	93.2	C
ATOM	4708	CG	LEU	D	11	-55.305	29.613	44.675	1	95.48	C
ATOM	4709	CD1	LEU	D	11	-56.163	30.684	45.337	1	101.18	C
ATOM	4710	CD2	LEU	D	11	-55.844	29.224	43.301	1	98.97	C
ATOM	4711	C	LEU	D	11	-53.026	27.727	44.959	1	101.34	C
ATOM	4712	O	LEU	D	11	-53.499	27.25	43.922	1	103.75	O
ATOM	4713	N	ALA	D	12	-52.717	26.999	46.025	1	100.55	N
ATOM	4714	CA	ALA	D	12	-53.002	25.573	46.117	1	96.29	C
ATOM	4715	CB	ALA	D	12	-51.876	24.854	46.844	1	107.94	C
ATOM	4716	C	ALA	D	12	-54.309	25.377	46.854	1	84.84	C
ATOM	4717	O	ALA	D	12	-54.478	25.906	47.957	1	85.48	O
ATOM	4718	N	VAL	D	13	-55.222	24.613	46.263	1	78.21	N
ATOM	4719	CA	VAL	D	13	-56.551	24.42	46.848	1	87.41	C
ATOM	4720	CB	VAL	D	13	-57.526	25.539	46.402	1	88.84	C
ATOM	4721	CG1	VAL	D	13	-57.399	25.817	44.914	1	94.05	C
ATOM	4722	CG2	VAL	D	13	-58.968	25.221	46.779	1	90.8	C
ATOM	4723	C	VAL	D	13	-57.109	23.018	46.573	1	93.72	C
ATOM	4724	O	VAL	D	13	-57.135	22.55	45.433	1	89.32	O
ATOM	4725	N	SER	D	14	-57.586	22.381	47.643	1	100.84	N
ATOM	4726	CA	SER	D	14	-57.877	20.953	47.648	1	104.24	C
ATOM	4727	CB	SER	D	14	-57.955	20.454	49.092	1	122.85	C
ATOM	4728	OG	SER	D	14	-57.849	19.041	49.14	1	151.3	O
ATOM	4729	C	SER	D	14	-59.169	20.632	46.928	1	88.64	C
ATOM	4730	O	SER	D	14	-60.13	21.394	47.031	1	85.91	O
ATOM	4731	N	LEU	D	15	-59.199	19.482	46.254	1	78.38	N
ATOM	4732	CA	LEU	D	15	-60.325	19.113	45.384	1	84.6	C
ATOM	4733	CB	LEU	D	15	-60.215	17.663	44.902	1	89.48	C
ATOM	4734	CG	LEU	D	15	-59.007	17.178	44.08	1	97.9	C
ATOM	4735	CD1	LEU	D	15	-59.469	16.224	42.979	1	101.15	C
ATOM	4736	CD2	LEU	D	15	-58.176	18.297	43.464	1	98.48	C
ATOM	4737	C	LEU	D	15	-61.663	19.259	46.09	1	85.73	C
ATOM	4738	O	LEU	D	15	-61.863	18.671	47.138	1	98.59	O
ATOM	4739	N	GLY	D	16	-62.565	20.049	45.525	1	86.01	N
ATOM	4740	CA	GLY	D	16	-63.916	20.206	46.071	1	93.64	C
ATOM	4741	C	GLY	D	16	-64.229	21.605	46.552	1	96.27	C
ATOM	4742	O	GLY	D	16	-65.316	22.135	46.299	1	102.26	O
ATOM	4743	N	GLN	D	17	-63.288	22.209	47.257	1	95.34	N
ATOM	4744	CA	GLN	D	17	-63.511	23.533	47.796	1	107.62	C
ATOM	4745	CB	GLN	D	17	-62.639	23.689	49.047	1	125.05	C
ATOM	4746	CG	GLN	D	17	-62.926	24.907	49.912	1	145.71	C
ATOM	4747	CD	GLN	D	17	-64.362	25.037	50.404	1	157.95	C
ATOM	4748	OE1	GLN	D	17	-65.146	24.09	50.345	1	161.47	O
ATOM	4749	NE2	GLN	D	17	-64.71	26.228	50.894	1	164.84	N

ATOM	4750	C	GLN	D	17	-63.282	24.617	46.707	1	97.18	C
ATOM	4751	O	GLN	D	17	-62.754	24.314	45.638	1	86.99	O
ATOM	4752	N	ARG	D	18	-63.747	25.852	46.937	1	95.19	N
ATOM	4753	CA	ARG	D	18	-63.601	26.922	45.936	1	89.24	C
ATOM	4754	CB	ARG	D	18	-64.598	28.092	46.112	1	85.95	C
ATOM	4755	CG	ARG	D	18	-64.101	29.255	46.985	1	91.96	C
ATOM	4756	CD	ARG	D	18	-65.143	30.289	47.449	1	104.9	C
ATOM	4757	NE	ARG	D	18	-66.551	29.911	47.323	1	116.22	N
ATOM	4758	CZ	ARG	D	18	-67.137	28.876	47.928	1	141.44	C
ATOM	4759	NH1	ARG	D	18	-66.446	28.04	48.709	1	153.23	N
ATOM	4760	NH2	ARG	D	18	-68.429	28.643	47.717	1	158.91	N
ATOM	4761	C	ARG	D	18	-62.21	27.477	45.941	1	86.52	C
ATOM	4762	O	ARG	D	18	-61.528	27.476	46.957	1	84.95	O
ATOM	4763	N	ALA	D	19	-61.822	27.958	44.771	1	93.25	N
ATOM	4764	CA	ALA	D	19	-60.751	28.918	44.61	1	93.95	C
ATOM	4765	CB	ALA	D	19	-59.759	28.428	43.565	1	98.32	C
ATOM	4766	C	ALA	D	19	-61.424	30.18	44.12	1	86.98	C
ATOM	4767	O	ALA	D	19	-62.294	30.102	43.247	1	88.43	O
ATOM	4768	N	THR	D	20	-61.051	31.326	44.681	1	79.54	N
ATOM	4769	CA	THR	D	20	-61.333	32.602	44.035	1	75.27	C
ATOM	4770	CB	THR	D	20	-62.121	33.607	44.891	1	78.11	C
ATOM	4771	OG1	THR	D	20	-61.213	34.558	45.466	1	79.05	O
ATOM	4772	CG2	THR	D	20	-62.963	32.918	45.979	1	80.15	C
ATOM	4773	C	THR	D	20	-60	33.231	43.745	1	73.28	C
ATOM	4774	O	THR	D	20	-59.089	33.162	44.589	1	69.86	O
ATOM	4775	N	ILE	D	21	-59.896	33.825	42.556	1	73.79	N
ATOM	4776	CA	ILE	D	21	-58.749	34.63	42.171	1	78.44	C
ATOM	4777	CB	ILE	D	21	-57.854	33.94	41.091	1	84.94	C
ATOM	4778	CG1	ILE	D	21	-57.913	34.634	39.723	1	100.96	C
ATOM	4779	CD1	ILE	D	21	-56.763	34.278	38.798	1	105.56	C
ATOM	4780	CG2	ILE	D	21	-58.194	32.455	40.942	1	81.52	C
ATOM	4781	C	ILE	D	21	-59.347	35.971	41.769	1	78.51	C
ATOM	4782	O	ILE	D	21	-60.515	36.035	41.395	1	82.52	O
ATOM	4783	N	SER	D	22	-58.543	37.028	41.864	1	82.26	N
ATOM	4784	CA	SER	D	22	-59.007	38.414	41.735	1	88.26	C
ATOM	4785	CB	SER	D	22	-58.669	39.178	43.028	1	94.96	C
ATOM	4786	OG	SER	D	22	-58.871	38.382	44.199	1	98.19	O
ATOM	4787	C	SER	D	22	-58.33	39.092	40.54	1	86.18	C
ATOM	4788	O	SER	D	22	-57.246	38.679	40.159	1	86.8	O
ATOM	4789	N	CYS	D	23	-58.965	40.111	39.952	1	84	N
ATOM	4790	CA	CYS	D	23	-58.309	40.977	38.955	1	86.97	C
ATOM	4791	CB	CYS	D	23	-58.656	40.539	37.547	1	93.34	C
ATOM	4792	SG	CYS	D	23	-57.661	41.333	36.266	1	101.49	S
ATOM	4793	C	CYS	D	23	-58.754	42.405	39.112	1	85.73	C

ATOM	4794	O	CYS	D	23	-59.959	42.634	39.169	1	88.15	O
ATOM	4795	N	ARG	D	24	-57.804	43.354	39.141	1	85.99	N
ATOM	4796	CA	ARG	D	24	-58.117	44.78	39.395	1	89.31	C
ATOM	4797	CB	ARG	D	24	-57.709	45.165	40.808	1	94.45	C
ATOM	4798	CG	ARG	D	24	-58.857	45.066	41.789	1	103.05	C
ATOM	4799	CD	ARG	D	24	-58.406	45.447	43.178	1	116.49	C
ATOM	4800	NE	ARG	D	24	-58.684	46.84	43.527	1	135.05	N
ATOM	4801	CZ	ARG	D	24	-59.816	47.291	44.079	1	148.93	C
ATOM	4802	NH1	ARG	D	24	-60.829	46.472	44.362	1	157.39	N
ATOM	4803	NH2	ARG	D	24	-59.941	48.586	44.362	1	152.03	N
ATOM	4804	C	ARG	D	24	-57.554	45.812	38.405	1	86.45	C
ATOM	4805	O	ARG	D	24	-56.343	46.006	38.319	1	98.23	O
ATOM	4806	N	ALA	D	25	-58.457	46.514	37.718	1	78.76	N
ATOM	4807	CA	ALA	D	25	-58.099	47.425	36.629	1	76.58	C
ATOM	4808	CB	ALA	D	25	-59.256	47.513	35.647	1	75.52	C
ATOM	4809	C	ALA	D	25	-57.712	48.827	37.115	1	71.25	C
ATOM	4810	O	ALA	D	25	-58.359	49.379	38.006	1	71.65	O
ATOM	4811	N	SER	D	26	-56.683	49.41	36.503	1	68.27	N
ATOM	4812	CA	SER	D	26	-56.214	50.747	36.891	1	73.47	C
ATOM	4813	CB	SER	D	26	-54.928	51.173	36.138	1	78.62	C
ATOM	4814	OG	SER	D	26	-55.178	51.892	34.927	1	82.41	O
ATOM	4815	C	SER	D	26	-57.288	51.825	36.774	1	72.51	C
ATOM	4816	O	SER	D	26	-57.262	52.785	37.546	1	67.25	O
ATOM	4817	N	GLU	D	27	-58.2	51.673	35.807	1	76.65	N
ATOM	4818	CA	GLU	D	27	-59.374	52.559	35.66	1	83.63	C
ATOM	4819	CB	GLU	D	27	-59.175	53.563	34.514	1	94.68	C
ATOM	4820	CG	GLU	D	27	-57.924	54.435	34.608	1	106.95	C
ATOM	4821	CD	GLU	D	27	-57.342	54.809	33.249	1	120.91	C
ATOM	4822	OE1	GLU	D	27	-58.115	55.202	32.34	1	124.35	O
ATOM	4823	OE2	GLU	D	27	-56.1	54.716	33.097	1	131.22	O
ATOM	4824	C	GLU	D	27	-60.612	51.709	35.385	1	74.7	C
ATOM	4825	O	GLU	D	27	-60.491	50.499	35.218	1	64.76	O
ATOM	4826	N	SER	D	28	-61.794	52.33	35.332	1	70.98	N
ATOM	4827	CA	SER	D	28	-63.017	51.582	35.018	1	71.25	C
ATOM	4828	CB	SER	D	28	-64.275	52.444	35.01	1	77.8	C
ATOM	4829	OG	SER	D	28	-65.35	51.748	34.36	1	76.13	O
ATOM	4830	C	SER	D	28	-62.955	50.948	33.658	1	71.9	C
ATOM	4831	O	SER	D	28	-62.479	51.535	32.694	1	82.79	O
ATOM	4832	N	VAL	D	29	-63.519	49.762	33.598	1	70.51	N
ATOM	4833	CA	VAL	D	29	-63.484	48.918	32.429	1	66.9	C
ATOM	4834	CB	VAL	D	29	-62.716	47.623	32.834	1	64.91	C
ATOM	4835	CG1	VAL	D	29	-63.065	46.382	32.038	1	63.09	C
ATOM	4836	CG2	VAL	D	29	-61.233	47.903	32.75	1	66.03	C
ATOM	4837	C	VAL	D	29	-64.902	48.727	31.891	1	67.02	C

ATOM	4838	O	VAL	D	29	-65.068	48.175	30.826	1	66.77	O
ATOM	4839	N	ASP	D	30	-65.922	49.229	32.585	1	70.91	N
ATOM	4840	CA	ASP	D	30	-67.283	49.093	32.103	1	83	C
ATOM	4841	CB	ASP	D	30	-68.301	49.356	33.219	1	95.66	C
ATOM	4842	CG	ASP	D	30	-68.277	48.297	34.315	1	104.69	C
ATOM	4843	OD1	ASP	D	30	-67.706	47.211	34.122	1	102.94	O
ATOM	4844	OD2	ASP	D	30	-68.844	48.555	35.397	1	118.15	O
ATOM	4845	C	ASP	D	30	-67.541	50.071	30.968	1	85.71	C
ATOM	4846	O	ASP	D	30	-66.848	51.079	30.83	1	83.67	O
ATOM	4847	N	THR	D	31	-68.529	49.739	30.147	1	86.17	N
ATOM	4848	CA	THR	D	31	-69.123	50.687	29.217	1	88.1	C
ATOM	4849	CB	THR	D	31	-68.476	50.594	27.819	1	85.16	C
ATOM	4850	OG1	THR	D	31	-67.161	51.147	27.878	1	83.52	O
ATOM	4851	CG2	THR	D	31	-69.266	51.349	26.764	1	83.77	C
ATOM	4852	C	THR	D	31	-70.599	50.341	29.171	1	93.68	C
ATOM	4853	O	THR	D	31	-70.948	49.247	28.733	1	101.62	O
ATOM	4854	N	TYR	D	32	-71.44	51.271	29.635	1	91.41	N
ATOM	4855	CA	TYR	D	32	-72.907	51.097	29.753	1	91.39	C
ATOM	4856	CB	TYR	D	32	-73.586	50.838	28.375	1	91.46	C
ATOM	4857	CG	TYR	D	32	-73.622	52.042	27.472	1	84.54	C
ATOM	4858	CD1	TYR	D	32	-74.28	53.202	27.864	1	87.45	C
ATOM	4859	CE1	TYR	D	32	-74.312	54.315	27.054	1	89.59	C
ATOM	4860	CZ	TYR	D	32	-73.698	54.27	25.826	1	89.7	C
ATOM	4861	OH	TYR	D	32	-73.726	55.385	25.02	1	93.01	O
ATOM	4862	CE2	TYR	D	32	-73.047	53.122	25.415	1	84.07	C
ATOM	4863	CD2	TYR	D	32	-73.017	52.021	26.234	1	78.63	C
ATOM	4864	C	TYR	D	32	-73.315	50.007	30.736	1	87.7	C
ATOM	4865	O	TYR	D	32	-74.435	49.481	30.652	1	94.21	O
ATOM	4866	N	GLY	D	33	-72.431	49.668	31.672	1	82.61	N
ATOM	4867	CA	GLY	D	33	-72.53	48.367	32.329	1	82.85	C
ATOM	4868	C	GLY	D	33	-72.203	47.316	31.287	1	79.34	C
ATOM	4869	O	GLY	D	33	-72.212	47.588	30.098	1	84.91	O
ATOM	4870	N	ASN	D	34	-71.956	46.1	31.732	1	79.48	N
ATOM	4871	CA	ASN	D	34	-71.102	45.136	31.018	1	80.6	C
ATOM	4872	CB	ASN	D	34	-71.338	44.999	29.509	1	82.48	C
ATOM	4873	CG	ASN	D	34	-72.755	44.678	29.159	1	80.66	C
ATOM	4874	OD1	ASN	D	34	-73.654	44.765	29.986	1	82.23	O
ATOM	4875	ND2	ASN	D	34	-72.967	44.324	27.907	1	84.81	N
ATOM	4876	C	ASN	D	34	-69.691	45.599	31.201	1	74.56	C
ATOM	4877	O	ASN	D	34	-69.365	46.789	31.021	1	60.99	O
ATOM	4878	N	SER	D	35	-68.844	44.63	31.486	1	73.71	N
ATOM	4879	CA	SER	D	35	-67.561	44.95	32.009	1	76.59	C
ATOM	4880	CB	SER	D	35	-67.332	44.132	33.264	1	81.67	C
ATOM	4881	OG	SER	D	35	-68.054	44.725	34.346	1	82.05	O

ATOM	4882	C	SER	D	35	-66.42	44.858	31.012	1	76.6	C
ATOM	4883	O	SER	D	35	-65.623	45.772	30.961	1	76.57	O
ATOM	4884	N	PHE	D	36	-66.364	43.819	30.187	1	75.39	N
ATOM	4885	CA	PHE	D	36	-65.235	43.631	29.24	1	80.6	C
ATOM	4886	CB	PHE	D	36	-65.012	44.856	28.327	1	80.56	C
ATOM	4887	CG	PHE	D	36	-66.267	45.328	27.688	1	78.51	C
ATOM	4888	CD1	PHE	D	36	-66.83	44.599	26.658	1	74.17	C
ATOM	4889	CE1	PHE	D	36	-68.017	44.99	26.089	1	72.39	C
ATOM	4890	CZ	PHE	D	36	-68.662	46.11	26.56	1	77.39	C
ATOM	4891	CE2	PHE	D	36	-68.126	46.83	27.614	1	78.49	C
ATOM	4892	CD2	PHE	D	36	-66.938	46.432	28.175	1	78.6	C
ATOM	4893	C	PHE	D	36	-63.952	43.236	29.95	1	82.13	C
ATOM	4894	O	PHE	D	36	-62.845	43.672	29.596	1	79.21	O
ATOM	4895	N	MET	D	37	-64.142	42.423	30.982	1	82.93	N
ATOM	4896	CA	MET	D	37	-63.113	41.575	31.488	1	79.51	C
ATOM	4897	CB	MET	D	37	-63.206	41.446	33.001	1	84.27	C
ATOM	4898	CG	MET	D	37	-61.891	41.101	33.656	1	92.11	C
ATOM	4899	SD	MET	D	37	-60.598	42.223	33.104	1	114.94	S
ATOM	4900	CE	MET	D	37	-61.05	43.759	33.891	1	123.96	C
ATOM	4901	C	MET	D	37	-63.41	40.259	30.826	1	78.43	C
ATOM	4902	O	MET	D	37	-64.561	39.968	30.476	1	78.83	O
ATOM	4903	N	HIS	D	38	-62.356	39.493	30.602	1	76.4	N
ATOM	4904	CA	HIS	D	38	-62.458	38.159	30.041	1	74.51	C
ATOM	4905	CB	HIS	D	38	-62.212	38.209	28.533	1	80.77	C
ATOM	4906	CG	HIS	D	38	-62.902	39.355	27.849	1	83.43	C
ATOM	4907	ND1	HIS	D	38	-64.199	39.276	27.391	1	84.75	N
ATOM	4908	CE1	HIS	D	38	-64.548	40.426	26.848	1	82.66	C
ATOM	4909	NE2	HIS	D	38	-63.53	41.255	26.951	1	84.67	N
ATOM	4910	CD2	HIS	D	38	-62.49	40.615	27.581	1	82.33	C
ATOM	4911	C	HIS	D	38	-61.398	37.345	30.758	1	71.45	C
ATOM	4912	O	HIS	D	38	-60.334	37.882	31.113	1	67.37	O
ATOM	4913	N	TRP	D	39	-61.689	36.076	31.02	1	69.32	N
ATOM	4914	CA	TRP	D	39	-60.761	35.242	31.784	1	68.87	C
ATOM	4915	CB	TRP	D	39	-61.397	34.744	33.075	1	70.8	C
ATOM	4916	CG	TRP	D	39	-61.678	35.769	34.082	1	68.33	C
ATOM	4917	CD1	TRP	D	39	-62.783	36.539	34.166	1	72.94	C
ATOM	4918	NE1	TRP	D	39	-62.701	37.38	35.248	1	75.69	N
ATOM	4919	CE2	TRP	D	39	-61.518	37.144	35.889	1	73.92	C
ATOM	4920	CD2	TRP	D	39	-60.853	36.124	35.178	1	70.95	C
ATOM	4921	CE3	TRP	D	39	-59.611	35.685	35.634	1	76.19	C
ATOM	4922	CZ3	TRP	D	39	-59.074	36.279	36.772	1	78.39	C
ATOM	4923	CH2	TRP	D	39	-59.768	37.286	37.465	1	75.42	C
ATOM	4924	CZ2	TRP	D	39	-60.985	37.73	37.04	1	75.53	C
ATOM	4925	C	TRP	D	39	-60.309	34.045	30.975	1	67.5	C

ATOM	4926	O	TRP	D	39	-61.104	33.435	30.249	1	64.43	O
ATOM	4927	N	TYR	D	40	-59.044	33.684	31.162	1	70.12	N
ATOM	4928	CA	TYR	D	40	-58.392	32.666	30.359	1	77.63	C
ATOM	4929	CB	TYR	D	40	-57.424	33.353	29.379	1	78.94	C
ATOM	4930	CG	TYR	D	40	-58.134	34.204	28.354	1	78.81	C
ATOM	4931	CD1	TYR	D	40	-59.085	33.656	27.503	1	84.76	C
ATOM	4932	CE1	TYR	D	40	-59.764	34.439	26.574	1	87.96	C
ATOM	4933	CZ	TYR	D	40	-59.48	35.79	26.482	1	85.66	C
ATOM	4934	OH	TYR	D	40	-60.097	36.626	25.591	1	92.67	O
ATOM	4935	CE2	TYR	D	40	-58.541	36.337	27.299	1	83.82	C
ATOM	4936	CD2	TYR	D	40	-57.878	35.553	28.241	1	83.3	C
ATOM	4937	C	TYR	D	40	-57.668	31.591	31.198	1	78.88	C
ATOM	4938	O	TYR	D	40	-56.983	31.906	32.177	1	72.35	O
ATOM	4939	N	GLN	D	41	-57.84	30.329	30.802	1	80.32	N
ATOM	4940	CA	GLN	D	41	-57.11	29.197	31.384	1	88.35	C
ATOM	4941	CB	GLN	D	41	-58.078	28.053	31.687	1	90.75	C
ATOM	4942	CG	GLN	D	41	-57.488	26.691	32.013	1	93.81	C
ATOM	4943	CD	GLN	D	41	-58.584	25.66	32.175	1	98.31	C
ATOM	4944	OE1	GLN	D	41	-59.121	25.156	31.189	1	96.81	O
ATOM	4945	NE2	GLN	D	41	-58.944	25.364	33.422	1	102.92	N
ATOM	4946	C	GLN	D	41	-56.048	28.732	30.402	1	93.09	C
ATOM	4947	O	GLN	D	41	-56.355	28.444	29.243	1	94.45	O
ATOM	4948	N	GLN	D	42	-54.807	28.638	30.871	1	94.58	N
ATOM	4949	CA	GLN	D	42	-53.706	28.206	30.028	1	99.05	C
ATOM	4950	CB	GLN	D	42	-52.835	29.409	29.628	1	95.63	C
ATOM	4951	CG	GLN	D	42	-51.982	29.146	28.391	1	92.62	C
ATOM	4952	CD	GLN	D	42	-50.814	30.093	28.218	1	88.79	C
ATOM	4953	OE1	GLN	D	42	-50.145	30.484	29.184	1	84.52	O
ATOM	4954	NE2	GLN	D	42	-50.537	30.44	26.968	1	88.79	N
ATOM	4955	C	GLN	D	42	-52.882	27.128	30.739	1	106.79	C
ATOM	4956	O	GLN	D	42	-52.17	27.414	31.706	1	112.62	O
ATOM	4957	N	LYS	D	43	-53.001	25.889	30.258	1	113.35	N
ATOM	4958	CA	LYS	D	43	-52.149	24.786	30.709	1	111.01	C
ATOM	4959	CB	LYS	D	43	-52.88	23.438	30.62	1	115.48	C
ATOM	4960	CG	LYS	D	43	-54.366	23.436	31.001	1	118.31	C
ATOM	4961	CD	LYS	D	43	-54.702	22.364	32.039	1	114.25	C
ATOM	4962	CE	LYS	D	43	-54.446	20.942	31.546	1	109.58	C
ATOM	4963	NZ	LYS	D	43	-55.698	20.217	31.201	1	109.37	N
ATOM	4964	C	LYS	D	43	-50.94	24.818	29.78	1	111.36	C
ATOM	4965	O	LYS	D	43	-51.077	25.264	28.643	1	129.14	O
ATOM	4966	N	PRO	D	44	-49.769	24.322	30.23	1	112.19	N
ATOM	4967	CA	PRO	D	44	-48.504	24.562	29.513	1	110.81	C
ATOM	4968	CB	PRO	D	44	-47.471	23.906	30.425	1	112.32	C
ATOM	4969	CG	PRO	D	44	-48.206	22.74	30.987	1	113.96	C

ATOM	4970	CD	PRO	D	44	-49.627	23.207	31.186	1	117.99	C
ATOM	4971	C	PRO	D	44	-48.463	23.908	28.132	1	106.33	C
ATOM	4972	O	PRO	D	44	-48.975	22.803	27.959	1	104.33	O
ATOM	4973	N	GLY	D	45	-47.881	24.594	27.154	1	100.64	N
ATOM	4974	CA	GLY	D	45	-47.846	24.083	25.789	1	101.13	C
ATOM	4975	C	GLY	D	45	-48.977	24.64	24.957	1	102.36	C
ATOM	4976	O	GLY	D	45	-48.743	25.201	23.89	1	121.23	O
ATOM	4977	N	GLN	D	46	-50.204	24.492	25.437	1	99.39	N
ATOM	4978	CA	GLN	D	46	-51.373	25.012	24.725	1	100.35	C
ATOM	4979	CB	GLN	D	46	-52.645	24.393	25.301	1	106.2	C
ATOM	4980	CG	GLN	D	46	-52.767	22.922	24.965	1	112.36	C
ATOM	4981	CD	GLN	D	46	-52.922	22.055	26.189	1	119.34	C
ATOM	4982	OE1	GLN	D	46	-52.406	22.377	27.265	1	119.69	O
ATOM	4983	NE2	GLN	D	46	-53.621	20.935	26.031	1	125.68	N
ATOM	4984	C	GLN	D	46	-51.517	26.53	24.761	1	93.02	C
ATOM	4985	O	GLN	D	46	-50.874	27.212	25.566	1	79.75	O
ATOM	4986	N	PRO	D	47	-52.386	27.058	23.883	1	90.22	N
ATOM	4987	CA	PRO	D	47	-52.845	28.413	24.036	1	89.1	C
ATOM	4988	CB	PRO	D	47	-53.585	28.656	22.728	1	93.45	C
ATOM	4989	CG	PRO	D	47	-54.169	27.328	22.414	1	94.13	C
ATOM	4990	CD	PRO	D	47	-53.006	26.429	22.7	1	94.07	C
ATOM	4991	C	PRO	D	47	-53.833	28.546	25.2	1	86.31	C
ATOM	4992	O	PRO	D	47	-54.31	27.529	25.715	1	87.12	O
ATOM	4993	N	PRO	D	48	-54.15	29.791	25.603	1	81.81	N
ATOM	4994	CA	PRO	D	48	-55.19	30.028	26.587	1	82.45	C
ATOM	4995	CB	PRO	D	48	-55.019	31.509	26.926	1	85.41	C
ATOM	4996	CG	PRO	D	48	-53.657	31.867	26.481	1	83.91	C
ATOM	4997	CD	PRO	D	48	-53.446	31.038	25.27	1	82.1	C
ATOM	4998	C	PRO	D	48	-56.59	29.781	26.04	1	86.64	C
ATOM	4999	O	PRO	D	48	-56.838	29.956	24.844	1	97.34	O
ATOM	5000	N	LYS	D	49	-57.497	29.392	26.925	1	88.59	N
ATOM	5001	CA	LYS	D	49	-58.846	29.001	26.544	1	95.47	C
ATOM	5002	CB	LYS	D	49	-59.135	27.555	26.971	1	107.35	C
ATOM	5003	CG	LYS	D	49	-57.894	26.665	26.905	1	125.75	C
ATOM	5004	CD	LYS	D	49	-58.161	25.178	27.071	1	137.44	C
ATOM	5005	CE	LYS	D	49	-56.853	24.435	27.34	1	142.32	C
ATOM	5006	NZ	LYS	D	49	-56.995	22.968	27.128	1	146.86	N
ATOM	5007	C	LYS	D	49	-59.76	29.953	27.251	1	90.25	C
ATOM	5008	O	LYS	D	49	-59.563	30.238	28.432	1	81.33	O
ATOM	5009	N	LEU	D	50	-60.751	30.454	26.529	1	92.72	N
ATOM	5010	CA	LEU	D	50	-61.72	31.374	27.11	1	93.02	C
ATOM	5011	CB	LEU	D	50	-62.515	32.091	26.018	1	96.19	C
ATOM	5012	CG	LEU	D	50	-63.081	33.455	26.425	1	100.43	C
ATOM	5013	CD1	LEU	D	50	-63.185	34.366	25.213	1	105.06	C

ATOM	5014	CD2	LEU	D	50	-64.427	33.349	27.108	1	104.9	C
ATOM	5015	C	LEU	D	50	-62.642	30.612	28.045	1	87.7	C
ATOM	5016	O	LEU	D	50	-63.244	29.631	27.647	1	85.79	O
ATOM	5017	N	LEU	D	51	-62.718	31.051	29.298	1	86.83	N
ATOM	5018	CA	LEU	D	51	-63.691	30.511	30.233	1	80.65	C
ATOM	5019	CB	LEU	D	51	-63.143	30.435	31.66	1	84.51	C
ATOM	5020	CG	LEU	D	51	-62.391	29.19	32.159	1	84.45	C
ATOM	5021	CD1	LEU	D	51	-62.616	27.941	31.314	1	81.17	C
ATOM	5022	CD2	LEU	D	51	-60.909	29.465	32.28	1	87.04	C
ATOM	5023	C	LEU	D	51	-64.902	31.397	30.234	1	76.41	C
ATOM	5024	O	LEU	D	51	-66.011	30.942	29.975	1	75.43	O
ATOM	5025	N	ILE	D	52	-64.699	32.663	30.564	1	75.54	N
ATOM	5026	CA	ILE	D	52	-65.82	33.582	30.683	1	84.68	C
ATOM	5027	CB	ILE	D	52	-66.302	33.718	32.155	1	86.51	C
ATOM	5028	CG1	ILE	D	52	-65.272	34.477	32.99	1	91.33	C
ATOM	5029	CD1	ILE	D	52	-65.288	34.147	34.466	1	97.48	C
ATOM	5030	CG2	ILE	D	52	-66.613	32.342	32.745	1	83.39	C
ATOM	5031	C	ILE	D	52	-65.488	34.942	30.071	1	85.59	C
ATOM	5032	O	ILE	D	52	-64.311	35.354	30.002	1	87.99	O
ATOM	5033	N	TYR	D	53	-66.54	35.615	29.614	1	76.19	N
ATOM	5034	CA	TYR	D	53	-66.411	36.866	28.899	1	73.72	C
ATOM	5035	CB	TYR	D	53	-66.646	36.638	27.398	1	73.85	C
ATOM	5036	CG	TYR	D	53	-68.007	36.106	27.031	1	72.99	C
ATOM	5037	CD1	TYR	D	53	-69.078	36.968	26.858	1	72.6	C
ATOM	5038	CE1	TYR	D	53	-70.334	36.501	26.531	1	73.7	C
ATOM	5039	CZ	TYR	D	53	-70.539	35.151	26.36	1	75.62	C
ATOM	5040	OH	TYR	D	53	-71.798	34.723	26.015	1	78.52	O
ATOM	5041	CE2	TYR	D	53	-69.486	34.259	26.507	1	78.01	C
ATOM	5042	CD2	TYR	D	53	-68.225	34.744	26.845	1	76.2	C
ATOM	5043	C	TYR	D	53	-67.378	37.902	29.451	1	76.37	C
ATOM	5044	O	TYR	D	53	-68.47	37.566	29.927	1	72.79	O
ATOM	5045	N	LEU	D	54	-66.969	39.166	29.389	1	80.78	N
ATOM	5046	CA	LEU	D	54	-67.79	40.278	29.852	1	87.73	C
ATOM	5047	CB	LEU	D	54	-69.041	40.456	28.963	1	90.17	C
ATOM	5048	CG	LEU	D	54	-68.795	41.24	27.669	1	89.19	C
ATOM	5049	CD1	LEU	D	54	-68.106	40.408	26.608	1	90.88	C
ATOM	5050	CD2	LEU	D	54	-70.103	41.778	27.12	1	92.11	C
ATOM	5051	C	LEU	D	54	-68.148	40.08	31.324	1	85.09	C
ATOM	5052	O	LEU	D	54	-69.318	40.099	31.695	1	77.79	O
ATOM	5053	N	ALA	D	55	-67.101	39.876	32.131	1	87.11	N
ATOM	5054	CA	ALA	D	55	-67.172	39.375	33.522	1	86.26	C
ATOM	5055	CB	ALA	D	55	-67.705	40.447	34.453	1	88.36	C
ATOM	5056	C	ALA	D	55	-67.949	38.063	33.726	1	86.1	C
ATOM	5057	O	ALA	D	55	-67.36	37.023	33.985	1	90.07	O

ATOM	5058	N	SER	D	56	-69.264	38.109	33.587	1	84.11	N
ATOM	5059	CA	SER	D	56	-70.131	37.07	34.118	1	88.17	C
ATOM	5060	CB	SER	D	56	-71.193	37.77	34.981	1	98.53	C
ATOM	5061	OG	SER	D	56	-72.139	38.489	34.19	1	94.93	O
ATOM	5062	C	SER	D	56	-70.82	36.156	33.088	1	85.94	C
ATOM	5063	O	SER	D	56	-71.915	35.653	33.355	1	83.06	O
ATOM	5064	N	ASN	D	57	-70.213	35.933	31.923	1	85.21	N
ATOM	5065	CA	ASN	D	57	-70.823	35.03	30.925	1	77.86	C
ATOM	5066	CB	ASN	D	57	-71.284	35.756	29.678	1	75.29	C
ATOM	5067	CG	ASN	D	57	-72.153	36.937	30.006	1	81.66	C
ATOM	5068	OD1	ASN	D	57	-71.646	37.999	30.365	1	87.94	O
ATOM	5069	ND2	ASN	D	57	-73.466	36.761	29.915	1	81.88	N
ATOM	5070	C	ASN	D	57	-69.882	33.932	30.558	1	74.34	C
ATOM	5071	O	ASN	D	57	-68.709	34.151	30.283	1	70.1	O
ATOM	5072	N	LEU	D	58	-70.447	32.747	30.516	1	73.49	N
ATOM	5073	CA	LEU	D	58	-69.7	31.534	30.558	1	76.4	C
ATOM	5074	CB	LEU	D	58	-70.457	30.587	31.487	1	82.15	C
ATOM	5075	CG	LEU	D	58	-69.851	29.226	31.809	1	89.68	C
ATOM	5076	CD1	LEU	D	58	-70.021	28.933	33.288	1	91.06	C
ATOM	5077	CD2	LEU	D	58	-70.465	28.121	30.953	1	94.95	C
ATOM	5078	C	LEU	D	58	-69.6	31.028	29.133	1	77.53	C
ATOM	5079	O	LEU	D	58	-70.615	30.868	28.455	1	78.17	O
ATOM	5080	N	GLU	D	59	-68.382	30.813	28.652	1	83.65	N
ATOM	5081	CA	GLU	D	59	-68.2	30.246	27.302	1	97.28	C
ATOM	5082	CB	GLU	D	59	-66.71	30.085	26.91	1	103.83	C
ATOM	5083	CG	GLU	D	59	-66.25	30.933	25.728	1	103.99	C
ATOM	5084	CD	GLU	D	59	-66.759	30.424	24.401	1	110.28	C
ATOM	5085	OE1	GLU	D	59	-66.762	29.193	24.202	1	107.64	O
ATOM	5086	OE2	GLU	D	59	-67.159	31.257	23.559	1	125.66	O
ATOM	5087	C	GLU	D	59	-68.905	28.898	27.174	1	99.63	C
ATOM	5088	O	GLU	D	59	-69.118	28.183	28.16	1	100.66	O
ATOM	5089	N	SER	D	60	-69.267	28.564	25.943	1	101.44	N
ATOM	5090	CA	SER	D	60	-69.811	27.247	25.647	1	95.24	C
ATOM	5091	CB	SER	D	60	-70.257	27.15	24.173	1	93.13	C
ATOM	5092	OG	SER	D	60	-71.487	26.457	24.054	1	89.99	O
ATOM	5093	C	SER	D	60	-68.716	26.227	25.991	1	90.1	C
ATOM	5094	O	SER	D	60	-67.514	26.537	25.895	1	83.68	O
ATOM	5095	N	GLY	D	61	-69.123	25.05	26.464	1	85.18	N
ATOM	5096	CA	GLY	D	61	-68.166	23.99	26.775	1	90.1	C
ATOM	5097	C	GLY	D	61	-67.34	24.208	28.034	1	95.04	C
ATOM	5098	O	GLY	D	61	-66.436	23.424	28.328	1	108.09	O
ATOM	5099	N	VAL	D	62	-67.645	25.27	28.774	1	90.06	N
ATOM	5100	CA	VAL	D	62	-67.081	25.501	30.086	1	80.54	C
ATOM	5101	CB	VAL	D	62	-66.79	26.99	30.27	1	71.09	C

ATOM	5102	CG1	VAL	D	62	-66.391	27.291	31.692	1	72.92	C
ATOM	5103	CG2	VAL	D	62	-65.697	27.412	29.312	1	66.98	C
ATOM	5104	C	VAL	D	62	-68.154	24.996	31.057	1	86.26	C
ATOM	5105	O	VAL	D	62	-69.34	25.266	30.848	1	90.84	O
ATOM	5106	N	PRO	D	63	-67.763	24.228	32.097	1	86.89	N
ATOM	5107	CA	PRO	D	63	-68.794	23.756	33.021	1	81.3	C
ATOM	5108	CB	PRO	D	63	-68.097	22.63	33.783	1	83.99	C
ATOM	5109	CG	PRO	D	63	-66.674	23.065	33.811	1	87.23	C
ATOM	5110	CD	PRO	D	63	-66.418	23.786	32.511	1	87.33	C
ATOM	5111	C	PRO	D	63	-69.191	24.875	33.964	1	75.92	C
ATOM	5112	O	PRO	D	63	-68.402	25.791	34.202	1	71.45	O
ATOM	5113	N	ALA	D	64	-70.383	24.786	34.533	1	73.44	N
ATOM	5114	CA	ALA	D	64	-70.857	25.832	35.442	1	78.94	C
ATOM	5115	CB	ALA	D	64	-72.275	25.54	35.934	1	83.65	C
ATOM	5116	C	ALA	D	64	-69.925	26.08	36.633	1	77.4	C
ATOM	5117	O	ALA	D	64	-69.999	27.12	37.266	1	83.45	O
ATOM	5118	N	ARG	D	65	-69.036	25.14	36.924	1	80.06	N
ATOM	5119	CA	ARG	D	65	-68.075	25.288	38.022	1	83.91	C
ATOM	5120	CB	ARG	D	65	-67.144	24.077	38.085	1	85.13	C
ATOM	5121	CG	ARG	D	65	-67.788	22.699	38.279	1	84.97	C
ATOM	5122	CD	ARG	D	65	-66.848	21.631	37.773	1	81.37	C
ATOM	5123	NE	ARG	D	65	-65.476	22.112	37.939	1	79.63	N
ATOM	5124	CZ	ARG	D	65	-64.484	21.951	37.067	1	83.76	C
ATOM	5125	NH1	ARG	D	65	-64.632	21.257	35.93	1	91.79	N
ATOM	5126	NH2	ARG	D	65	-63.307	22.473	37.352	1	79.74	N
ATOM	5127	C	ARG	D	65	-67.182	26.533	37.92	1	84.22	C
ATOM	5128	O	ARG	D	65	-66.417	26.821	38.836	1	89.45	O
ATOM	5129	N	PHE	D	66	-67.202	27.22	36.787	1	80.59	N
ATOM	5130	CA	PHE	D	66	-66.54	28.5	36.687	1	77.23	C
ATOM	5131	CB	PHE	D	66	-65.754	28.595	35.384	1	74.5	C
ATOM	5132	CG	PHE	D	66	-64.61	27.621	35.29	1	67.17	C
ATOM	5133	CD1	PHE	D	66	-63.402	27.902	35.891	1	64.44	C
ATOM	5134	CE1	PHE	D	66	-62.343	27.024	35.795	1	63.58	C
ATOM	5135	CZ	PHE	D	66	-62.48	25.844	35.097	1	63.3	C
ATOM	5136	CE2	PHE	D	66	-63.686	25.548	34.492	1	64.39	C
ATOM	5137	CD2	PHE	D	66	-64.742	26.435	34.588	1	64.23	C
ATOM	5138	C	PHE	D	66	-67.603	29.576	36.745	1	77.61	C
ATOM	5139	O	PHE	D	66	-68.69	29.43	36.203	1	83.69	O
ATOM	5140	N	SER	D	67	-67.279	30.656	37.42	1	76.67	N
ATOM	5141	CA	SER	D	67	-68.153	31.796	37.512	1	76.47	C
ATOM	5142	CB	SER	D	67	-69.052	31.624	38.726	1	84.43	C
ATOM	5143	OG	SER	D	67	-68.282	31.312	39.886	1	88.2	O
ATOM	5144	C	SER	D	67	-67.272	33.017	37.675	1	74.1	C
ATOM	5145	O	SER	D	67	-66.14	32.926	38.152	1	78.89	O

ATOM	5146	N	GLY	D	68	-67.774	34.169	37.282	1	72.05	N
ATOM	5147	CA	GLY	D	68	-66.991	35.378	37.438	1	73.66	C
ATOM	5148	C	GLY	D	68	-67.836	36.567	37.757	1	72.37	C
ATOM	5149	O	GLY	D	68	-68.954	36.683	37.261	1	74.75	O
ATOM	5150	N	SER	D	69	-67.291	37.454	38.575	1	72.79	N
ATOM	5151	CA	SER	D	69	-68.017	38.622	38.993	1	76.69	C
ATOM	5152	CB	SER	D	69	-68.678	38.369	40.325	1	84.93	C
ATOM	5153	OG	SER	D	69	-69.942	37.794	40.065	1	110.26	O
ATOM	5154	C	SER	D	69	-67.143	39.813	39.06	1	76.55	C
ATOM	5155	O	SER	D	69	-65.924	39.72	38.862	1	77.72	O
ATOM	5156	N	GLY	D	70	-67.811	40.94	39.28	1	77.59	N
ATOM	5157	CA	GLY	D	70	-67.18	42.241	39.329	1	80.73	C
ATOM	5158	C	GLY	D	70	-67.793	43.248	38.378	1	76.99	C
ATOM	5159	O	GLY	D	70	-68.622	42.922	37.524	1	75.05	O
ATOM	5160	N	SER	D	71	-67.359	44.484	38.546	1	73.79	N
ATOM	5161	CA	SER	D	71	-67.782	45.582	37.706	1	75.79	C
ATOM	5162	CB	SER	D	71	-69.167	46.056	38.146	1	80.17	C
ATOM	5163	OG	SER	D	71	-69.15	46.507	39.492	1	83.69	O
ATOM	5164	C	SER	D	71	-66.716	46.657	37.867	1	74.65	C
ATOM	5165	O	SER	D	71	-65.693	46.395	38.514	1	65.7	O
ATOM	5166	N	ARG	D	72	-66.957	47.853	37.324	1	78.86	N
ATOM	5167	CA	ARG	D	72	-65.954	48.927	37.283	1	89.31	C
ATOM	5168	CB	ARG	D	72	-66.223	50.031	38.342	1	103.98	C
ATOM	5169	CG	ARG	D	72	-66.845	49.546	39.651	1	122.62	C
ATOM	5170	CD	ARG	D	72	-66.437	50.362	40.873	1	137.17	C
ATOM	5171	NE	ARG	D	72	-66.684	49.609	42.116	1	152.01	N
ATOM	5172	CZ	ARG	D	72	-65.858	48.712	42.679	1	148.56	C
ATOM	5173	NH1	ARG	D	72	-64.675	48.412	42.145	1	143.48	N
ATOM	5174	NH2	ARG	D	72	-66.22	48.1	43.809	1	147.42	N
ATOM	5175	C	ARG	D	72	-64.526	48.359	37.347	1	85.82	C
ATOM	5176	O	ARG	D	72	-64.047	47.857	36.342	1	91.86	O
ATOM	5177	N	THR	D	73	-63.895	48.337	38.519	1	81.67	N
ATOM	5178	CA	THR	D	73	-62.459	48.066	38.627	1	83.73	C
ATOM	5179	CB	THR	D	73	-61.772	49.166	39.453	1	84.04	C
ATOM	5180	OG1	THR	D	73	-62.636	49.545	40.526	1	89.64	O
ATOM	5181	CG2	THR	D	73	-61.49	50.373	38.596	1	85.94	C
ATOM	5182	C	THR	D	73	-62.037	46.741	39.247	1	84.89	C
ATOM	5183	O	THR	D	73	-60.88	46.381	39.112	1	88.91	O
ATOM	5184	N	ASP	D	74	-62.939	46.04	39.933	1	90.13	N
ATOM	5185	CA	ASP	D	74	-62.59	44.866	40.761	1	88.63	C
ATOM	5186	CB	ASP	D	74	-62.967	45.117	42.23	1	94.33	C
ATOM	5187	CG	ASP	D	74	-62.687	43.921	43.149	1	98.08	C
ATOM	5188	OD1	ASP	D	74	-62.82	42.758	42.711	1	106.1	O
ATOM	5189	OD2	ASP	D	74	-62.364	44.151	44.337	1	102.32	O

ATOM	5190	C	ASP	D	74	-63.366	43.686	40.233	1	83.76	C
ATOM	5191	O	ASP	D	74	-64.58	43.762	40.073	1	85.03	O
ATOM	5192	N	PHE	D	75	-62.665	42.592	39.986	1	80.13	N
ATOM	5193	CA	PHE	D	75	-63.285	41.394	39.45	1	80.36	C
ATOM	5194	CB	PHE	D	75	-63.041	41.302	37.94	1	80	C
ATOM	5195	CG	PHE	D	75	-63.653	42.42	37.14	1	72.51	C
ATOM	5196	CD1	PHE	D	75	-62.902	43.529	36.774	1	71.97	C
ATOM	5197	CE1	PHE	D	75	-63.458	44.555	36.018	1	68.84	C
ATOM	5198	CZ	PHE	D	75	-64.77	44.47	35.618	1	67.51	C
ATOM	5199	CE2	PHE	D	75	-65.529	43.365	35.978	1	67.96	C
ATOM	5200	CD2	PHE	D	75	-64.967	42.347	36.724	1	70.17	C
ATOM	5201	C	PHE	D	75	-62.748	40.145	40.136	1	79.41	C
ATOM	5202	O	PHE	D	75	-61.773	40.186	40.881	1	80.37	O
ATOM	5203	N	THR	D	76	-63.384	39.023	39.86	1	75.33	N
ATOM	5204	CA	THR	D	76	-63.054	37.813	40.556	1	74.9	C
ATOM	5205	CB	THR	D	76	-63.723	37.76	41.952	1	81.66	C
ATOM	5206	OG1	THR	D	76	-63.936	36.401	42.329	1	79.83	O
ATOM	5207	CG2	THR	D	76	-65.092	38.465	41.979	1	87.23	C
ATOM	5208	C	THR	D	76	-63.526	36.65	39.744	1	73.05	C
ATOM	5209	O	THR	D	76	-64.703	36.561	39.431	1	80.06	O
ATOM	5210	N	LEU	D	77	-62.601	35.773	39.393	1	73.33	N
ATOM	5211	CA	LEU	D	77	-62.945	34.472	38.848	1	75.12	C
ATOM	5212	CB	LEU	D	77	-61.845	34.009	37.908	1	78.66	C
ATOM	5213	CG	LEU	D	77	-61.995	32.598	37.348	1	85.89	C
ATOM	5214	CD1	LEU	D	77	-63.104	32.562	36.314	1	81.9	C
ATOM	5215	CD2	LEU	D	77	-60.672	32.132	36.753	1	91.65	C
ATOM	5216	C	LEU	D	77	-63.04	33.511	40.015	1	71.92	C
ATOM	5217	O	LEU	D	77	-62.081	33.416	40.773	1	78.45	O
ATOM	5218	N	THR	D	78	-64.168	32.811	40.161	1	67.07	N
ATOM	5219	CA	THR	D	78	-64.341	31.762	41.193	1	69.54	C
ATOM	5220	CB	THR	D	78	-65.616	31.994	42.046	1	68.15	C
ATOM	5221	OG1	THR	D	78	-65.346	32.933	43.088	1	72.53	O
ATOM	5222	CG2	THR	D	78	-66.089	30.719	42.728	1	67.93	C
ATOM	5223	C	THR	D	78	-64.437	30.357	40.576	1	74.78	C
ATOM	5224	O	THR	D	78	-65.359	30.085	39.802	1	83.27	O
ATOM	5225	N	ILE	D	79	-63.534	29.452	40.95	1	73.06	N
ATOM	5226	CA	ILE	D	79	-63.666	28.066	40.532	1	76.97	C
ATOM	5227	CB	ILE	D	79	-62.314	27.435	40.201	1	78.61	C
ATOM	5228	CG1	ILE	D	79	-61.574	28.339	39.214	1	83.48	C
ATOM	5229	CD1	ILE	D	79	-60.277	27.759	38.705	1	87.72	C
ATOM	5230	CG2	ILE	D	79	-62.498	26.064	39.551	1	79.78	C
ATOM	5231	C	ILE	D	79	-64.41	27.354	41.651	1	82.72	C
ATOM	5232	O	ILE	D	79	-63.871	27.18	42.726	1	82.76	O
ATOM	5233	N	ASP	D	80	-65.63	26.908	41.339	1	98.5	N

ATOM	5234	CA	ASP	D	80	-66.732	26.692	42.309	1	108.76	C
ATOM	5235	CB	ASP	D	80	-68.124	26.673	41.588	1	130.69	C
ATOM	5236	CG	ASP	D	80	-68.569	28.056	41.006	1	141.73	C
ATOM	5237	OD1	ASP	D	80	-67.791	28.716	40.277	1	144.01	O
ATOM	5238	OD2	ASP	D	80	-69.742	28.454	41.239	1	133.41	O
ATOM	5239	C	ASP	D	80	-66.553	25.45	43.22	1	96.58	C
ATOM	5240	O	ASP	D	80	-66.514	25.626	44.442	1	88.33	O
ATOM	5241	N	PRO	D	81	-66.559	24.205	42.646	1	89.26	N
ATOM	5242	CA	PRO	D	81	-65.795	23.078	43.202	1	85.55	C
ATOM	5243	CB	PRO	D	81	-66.837	21.958	43.308	1	79.99	C
ATOM	5244	CG	PRO	D	81	-67.782	22.226	42.206	1	79.87	C
ATOM	5245	CD	PRO	D	81	-67.702	23.693	41.863	1	84.7	C
ATOM	5246	C	PRO	D	81	-64.652	22.648	42.284	1	86.06	C
ATOM	5247	O	PRO	D	81	-64.898	21.964	41.287	1	87.02	O
ATOM	5248	N	VAL	D	82	-63.421	23.044	42.638	1	86.71	N
ATOM	5249	CA	VAL	D	82	-62.208	22.786	41.818	1	80.5	C
ATOM	5250	CB	VAL	D	82	-60.948	23.526	42.384	1	78.51	C
ATOM	5251	CG1	VAL	D	82	-60.475	22.978	43.713	1	76.4	C
ATOM	5252	CG2	VAL	D	82	-59.792	23.462	41.4	1	86.28	C
ATOM	5253	C	VAL	D	82	-61.911	21.291	41.563	1	76.41	C
ATOM	5254	O	VAL	D	82	-61.808	20.49	42.489	1	69.34	O
ATOM	5255	N	GLU	D	83	-61.785	20.931	40.292	1	79.94	N
ATOM	5256	CA	GLU	D	83	-61.465	19.562	39.901	1	90.29	C
ATOM	5257	CB	GLU	D	83	-62.417	19.107	38.79	1	96.03	C
ATOM	5258	CG	GLU	D	83	-63.886	18.945	39.207	1	96.12	C
ATOM	5259	CD	GLU	D	83	-64.799	18.507	38.045	1	102.97	C
ATOM	5260	OE1	GLU	D	83	-66.036	18.515	38.212	1	107.53	O
ATOM	5261	OE2	GLU	D	83	-64.302	18.151	36.946	1	107	O
ATOM	5262	C	GLU	D	83	-59.988	19.446	39.459	1	98.91	C
ATOM	5263	O	GLU	D	83	-59.278	20.456	39.32	1	106.23	O
ATOM	5264	N	ALA	D	84	-59.535	18.21	39.249	1	98.43	N
ATOM	5265	CA	ALA	D	84	-58.126	17.927	38.949	1	96.66	C
ATOM	5266	CB	ALA	D	84	-57.896	16.43	38.852	1	103.78	C
ATOM	5267	C	ALA	D	84	-57.634	18.587	37.687	1	96.11	C
ATOM	5268	O	ALA	D	84	-56.474	18.995	37.614	1	86.2	O
ATOM	5269	N	ASP	D	85	-58.547	18.679	36.713	1	107.87	N
ATOM	5270	CA	ASP	D	85	-58.319	19.286	35.383	1	114.99	C
ATOM	5271	CB	ASP	D	85	-59.237	18.62	34.333	1	126.8	C
ATOM	5272	CG	ASP	D	85	-60.719	18.643	34.738	1	140.59	C
ATOM	5273	OD1	ASP	D	85	-61.038	18.14	35.843	1	135.03	O
ATOM	5274	OD2	ASP	D	85	-61.556	19.157	33.962	1	156.4	O
ATOM	5275	C	ASP	D	85	-58.515	20.81	35.366	1	105.16	C
ATOM	5276	O	ASP	D	85	-59.086	21.364	34.414	1	99.01	O
ATOM	5277	N	ASP	D	86	-58.049	21.466	36.432	1	97.52	N

ATOM	5278	CA	ASP	D	86	-57.971	22.911	36.528	1	88.66	C
ATOM	5279	CB	ASP	D	86	-58.902	23.392	37.637	1	88.1	C
ATOM	5280	CG	ASP	D	86	-60.364	23.18	37.307	1	91.64	C
ATOM	5281	OD1	ASP	D	86	-60.717	23.056	36.1	1	85.46	O
ATOM	5282	OD2	ASP	D	86	-61.18	23.148	38.264	1	86.17	O
ATOM	5283	C	ASP	D	86	-56.567	23.375	36.845	1	83.93	C
ATOM	5284	O	ASP	D	86	-56.377	24.548	37.125	1	93.49	O
ATOM	5285	N	ALA	D	87	-55.579	22.489	36.783	1	82.71	N
ATOM	5286	CA	ALA	D	87	-54.233	22.815	37.263	1	88.95	C
ATOM	5287	CB	ALA	D	87	-53.513	21.56	37.723	1	94.73	C
ATOM	5288	C	ALA	D	87	-53.432	23.559	36.189	1	89.91	C
ATOM	5289	O	ALA	D	87	-52.675	22.965	35.411	1	96.36	O
ATOM	5290	N	ALA	D	88	-53.609	24.874	36.172	1	90.47	N
ATOM	5291	CA	ALA	D	88	-53.159	25.728	35.074	1	90.45	C
ATOM	5292	CB	ALA	D	88	-54.174	25.669	33.939	1	86.57	C
ATOM	5293	C	ALA	D	88	-53.021	27.157	35.576	1	87.87	C
ATOM	5294	O	ALA	D	88	-53.615	27.503	36.602	1	91.61	O
ATOM	5295	N	THR	D	89	-52.249	27.984	34.871	1	83.99	N
ATOM	5296	CA	THR	D	89	-52.252	29.419	35.158	1	86.96	C
ATOM	5297	CB	THR	D	89	-50.965	30.141	34.711	1	90.39	C
ATOM	5298	OG1	THR	D	89	-50.947	30.256	33.286	1	96.88	O
ATOM	5299	CG2	THR	D	89	-49.697	29.41	35.208	1	89.17	C
ATOM	5300	C	THR	D	89	-53.497	30.05	34.513	1	83.56	C
ATOM	5301	O	THR	D	89	-54.007	29.533	33.518	1	88.45	O
ATOM	5302	N	TYR	D	90	-53.987	31.144	35.097	1	79.19	N
ATOM	5303	CA	TYR	D	90	-55.243	31.773	34.679	1	77.07	C
ATOM	5304	CB	TYR	D	90	-56.315	31.552	35.727	1	74	C
ATOM	5305	CG	TYR	D	90	-56.847	30.145	35.805	1	73.85	C
ATOM	5306	CD1	TYR	D	90	-58	29.786	35.105	1	77.54	C
ATOM	5307	CE1	TYR	D	90	-58.526	28.503	35.191	1	74.45	C
ATOM	5308	CZ	TYR	D	90	-57.899	27.563	35.987	1	74.49	C
ATOM	5309	OH	TYR	D	90	-58.45	26.308	36.03	1	79.75	O
ATOM	5310	CE2	TYR	D	90	-56.751	27.89	36.711	1	68.84	C
ATOM	5311	CD2	TYR	D	90	-56.235	29.176	36.618	1	69.85	C
ATOM	5312	C	TYR	D	90	-55.064	33.277	34.459	1	83.17	C
ATOM	5313	O	TYR	D	90	-54.509	33.978	35.317	1	79.4	O
ATOM	5314	N	TYR	D	91	-55.564	33.762	33.319	1	83.15	N
ATOM	5315	CA	TYR	D	91	-55.241	35.093	32.813	1	81.72	C
ATOM	5316	CB	TYR	D	91	-54.469	35.026	31.47	1	81.43	C
ATOM	5317	CG	TYR	D	91	-53.028	34.575	31.645	1	81.79	C
ATOM	5318	CD1	TYR	D	91	-52.104	35.372	32.334	1	84.71	C
ATOM	5319	CE1	TYR	D	91	-50.79	34.957	32.527	1	81.71	C
ATOM	5320	CZ	TYR	D	91	-50.384	33.72	32.046	1	81.02	C
ATOM	5321	OH	TYR	D	91	-49.082	33.294	32.233	1	81.83	O

ATOM	5322	CE2	TYR	D	91	-51.284	32.912	31.369	1	79.73	C
ATOM	5323	CD2	TYR	D	91	-52.594	33.339	31.171	1	79.67	C
ATOM	5324	C	TYR	D	91	-56.492	35.922	32.662	1	82.9	C
ATOM	5325	O	TYR	D	91	-57.507	35.453	32.162	1	83.25	O
ATOM	5326	N	CYS	D	92	-56.359	37.176	33.079	1	88.17	N
ATOM	5327	CA	CYS	D	92	-57.4	38.19	33.09	1	86.34	C
ATOM	5328	CB	CYS	D	92	-57.299	38.926	34.425	1	90.3	C
ATOM	5329	SG	CYS	D	92	-58.305	40.401	34.571	1	113.98	S
ATOM	5330	C	CYS	D	92	-57.135	39.163	31.935	1	80.43	C
ATOM	5331	O	CYS	D	92	-56.074	39.771	31.868	1	87.52	O
ATOM	5332	N	HIS	D	93	-58.087	39.328	31.033	1	76.89	N
ATOM	5333	CA	HIS	D	93	-57.878	40.144	29.822	1	81.42	C
ATOM	5334	CB	HIS	D	93	-58.011	39.246	28.594	1	88.11	C
ATOM	5335	CG	HIS	D	93	-58.207	39.965	27.292	1	88.61	C
ATOM	5336	ND1	HIS	D	93	-57.375	40.972	26.855	1	92.57	N
ATOM	5337	CE1	HIS	D	93	-57.797	41.41	25.68	1	91.32	C
ATOM	5338	NE2	HIS	D	93	-58.868	40.718	25.337	1	90.47	N
ATOM	5339	CD2	HIS	D	93	-59.136	39.796	26.32	1	89.9	C
ATOM	5340	C	HIS	D	93	-58.895	41.264	29.763	1	78.43	C
ATOM	5341	O	HIS	D	93	-60.109	41.021	29.736	1	79.53	O
ATOM	5342	N	GLN	D	94	-58.397	42.49	29.74	1	72.33	N
ATOM	5343	CA	GLN	D	94	-59.255	43.654	29.622	1	72.14	C
ATOM	5344	CB	GLN	D	94	-58.876	44.663	30.7	1	68.24	C
ATOM	5345	CG	GLN	D	94	-59.447	46.06	30.536	1	67.08	C
ATOM	5346	CD	GLN	D	94	-58.838	46.837	29.387	1	69.06	C
ATOM	5347	OE1	GLN	D	94	-59.551	47.42	28.572	1	69.65	O
ATOM	5348	NE2	GLN	D	94	-57.513	46.813	29.288	1	75.46	N
ATOM	5349	C	GLN	D	94	-59.109	44.223	28.202	1	74.17	C
ATOM	5350	O	GLN	D	94	-57.986	44.379	27.708	1	72.4	O
ATOM	5351	N	ASN	D	95	-60.241	44.52	27.558	1	72.59	N
ATOM	5352	CA	ASN	D	95	-60.245	45.133	26.232	1	75.26	C
ATOM	5353	CB	ASN	D	95	-60.369	44.056	25.133	1	80.06	C
ATOM	5354	CG	ASN	D	95	-61.764	43.428	25.026	1	83.63	C
ATOM	5355	OD1	ASN	D	95	-61.892	42.343	24.445	1	92.45	O
ATOM	5356	ND2	ASN	D	95	-62.805	44.087	25.563	1	74.46	N
ATOM	5357	C	ASN	D	95	-61.283	46.233	26.046	1	76.99	C
ATOM	5358	O	ASN	D	95	-61.686	46.537	24.927	1	79.78	O
ATOM	5359	N	ASN	D	96	-61.716	46.826	27.142	1	81.67	N
ATOM	5360	CA	ASN	D	96	-62.694	47.899	27.094	1	87.85	C
ATOM	5361	CB	ASN	D	96	-63.025	48.337	28.514	1	96.51	C
ATOM	5362	CG	ASN	D	96	-64.007	49.479	28.563	1	97.36	C
ATOM	5363	OD1	ASN	D	96	-63.724	50.525	29.141	1	109.38	O
ATOM	5364	ND2	ASN	D	96	-65.168	49.281	27.974	1	93.72	N
ATOM	5365	C	ASN	D	96	-62.202	49.092	26.293	1	81.98	C

ATOM	5366	O	ASN	D	96	-62.989	49.736	25.604	1	84.82	O
ATOM	5367	N	GLU	D	97	-60.908	49.376	26.399	1	78.01	N
ATOM	5368	CA	GLU	D	97	-60.272	50.395	25.576	1	86.64	C
ATOM	5369	CB	GLU	D	97	-60.389	51.786	26.215	1	94.28	C
ATOM	5370	CG	GLU	D	97	-60.473	51.808	27.738	1	99.8	C
ATOM	5371	CD	GLU	D	97	-59.796	53.025	28.344	1	107.8	C
ATOM	5372	OE1	GLU	D	97	-58.587	53.22	28.075	1	108.27	O
ATOM	5373	OE2	GLU	D	97	-60.46	53.781	29.095	1	109.34	O
ATOM	5374	C	GLU	D	97	-58.82	50.042	25.283	1	87.45	C
ATOM	5375	O	GLU	D	97	-58.217	49.233	25.987	1	88.19	O
ATOM	5376	N	ASP	D	98	-58.284	50.659	24.229	1	91.3	N
ATOM	5377	CA	ASP	D	98	-56.945	50.355	23.722	1	97.11	C
ATOM	5378	CB	ASP	D	98	-56.823	50.761	22.251	1	101.69	C
ATOM	5379	CG	ASP	D	98	-57.742	49.965	21.341	1	113.95	C
ATOM	5380	OD1	ASP	D	98	-57.77	48.722	21.476	1	127.93	O
ATOM	5381	OD2	ASP	D	98	-58.423	50.572	20.476	1	116.07	O
ATOM	5382	C	ASP	D	98	-55.85	51.072	24.529	1	103.93	C
ATOM	5383	O	ASP	D	98	-56.1	52.156	25.065	1	113.86	O
ATOM	5384	N	PRO	D	99	-54.648	50.494	24.636	1	101.4	N
ATOM	5385	CA	PRO	D	99	-54.326	49.157	24.138	1	102.3	C
ATOM	5386	CB	PRO	D	99	-52.803	49.186	24.076	1	101.31	C
ATOM	5387	CG	PRO	D	99	-52.42	50.068	25.223	1	101.72	C
ATOM	5388	CD	PRO	D	99	-53.529	51.067	25.409	1	97.25	C
ATOM	5389	C	PRO	D	99	-54.817	48.079	25.128	1	103.66	C
ATOM	5390	O	PRO	D	99	-54.7	48.282	26.345	1	97.73	O
ATOM	5391	N	PRO	D	100	-55.365	46.944	24.625	1	100.11	N
ATOM	5392	CA	PRO	D	100	-55.814	45.923	25.557	1	98.13	C
ATOM	5393	CB	PRO	D	100	-56.392	44.827	24.643	1	101.2	C
ATOM	5394	CG	PRO	D	100	-56.454	45.399	23.277	1	100.28	C
ATOM	5395	CD	PRO	D	100	-55.384	46.436	23.244	1	102.8	C
ATOM	5396	C	PRO	D	100	-54.637	45.374	26.351	1	97.33	C
ATOM	5397	O	PRO	D	100	-53.531	45.286	25.809	1	100.33	O
ATOM	5398	N	ALA	D	101	-54.873	45.021	27.614	1	88.53	N
ATOM	5399	CA	ALA	D	101	-53.841	44.43	28.447	1	84.15	C
ATOM	5400	CB	ALA	D	101	-53.435	45.4	29.532	1	80.03	C
ATOM	5401	C	ALA	D	101	-54.292	43.099	29.048	1	91.27	C
ATOM	5402	O	ALA	D	101	-55.48	42.722	28.994	1	84.66	O
ATOM	5403	N	PHE	D	102	-53.304	42.384	29.585	1	98.52	N
ATOM	5404	CA	PHE	D	102	-53.515	41.153	30.341	1	99	C
ATOM	5405	CB	PHE	D	102	-52.734	39.989	29.739	1	98.63	C
ATOM	5406	CG	PHE	D	102	-53.22	39.55	28.393	1	96.74	C
ATOM	5407	CD1	PHE	D	102	-54.419	38.877	28.268	1	96.34	C
ATOM	5408	CE1	PHE	D	102	-54.866	38.444	27.025	1	96.54	C
ATOM	5409	CZ	PHE	D	102	-54.101	38.672	25.899	1	97.65	C

ATOM	5410	CE2	PHE	D	102	-52.894	39.342	26.009	1	97	C
ATOM	5411	CD2	PHE	D	102	-52.456	39.772	27.251	1	96.95	C
ATOM	5412	C	PHE	D	102	-53.024	41.349	31.762	1	99.36	C
ATOM	5413	O	PHE	D	102	-52.295	42.303	32.072	1	97.84	O
ATOM	5414	N	GLY	D	103	-53.409	40.403	32.61	1	102.25	N
ATOM	5415	CA	GLY	D	103	-53.019	40.389	34.011	1	103.49	C
ATOM	5416	C	GLY	D	103	-51.833	39.486	34.262	1	96.24	C
ATOM	5417	O	GLY	D	103	-51.471	38.665	33.412	1	82.78	O
ATOM	5418	N	GLY	D	104	-51.246	39.645	35.45	1	96.41	N
ATOM	5419	CA	GLY	D	104	-50.039	38.916	35.849	1	98.87	C
ATOM	5420	C	GLY	D	104	-50.062	37.437	35.512	1	91.35	C
ATOM	5421	O	GLY	D	104	-49.101	36.89	34.969	1	81.93	O
ATOM	5422	N	GLY	D	105	-51.2	36.821	35.793	1	89.39	N
ATOM	5423	CA	GLY	D	105	-51.347	35.387	35.77	1	92.7	C
ATOM	5424	C	GLY	D	105	-51.29	34.868	37.192	1	91.68	C
ATOM	5425	O	GLY	D	105	-50.459	35.312	37.998	1	83.04	O
ATOM	5426	N	THR	D	106	-52.195	33.939	37.492	1	90.91	N
ATOM	5427	CA	THR	D	106	-52.243	33.252	38.768	1	87.23	C
ATOM	5428	CB	THR	D	106	-53.552	33.553	39.478	1	92.31	C
ATOM	5429	OG1	THR	D	106	-53.535	34.906	39.944	1	99.05	O
ATOM	5430	CG2	THR	D	106	-53.807	32.604	40.652	1	98.07	C
ATOM	5431	C	THR	D	106	-52.187	31.779	38.468	1	86.32	C
ATOM	5432	O	THR	D	106	-52.855	31.321	37.556	1	83.47	O
ATOM	5433	N	LYS	D	107	-51.409	31.055	39.266	1	94.36	N
ATOM	5434	CA	LYS	D	107	-51.108	29.643	39.057	1	99.41	C
ATOM	5435	CB	LYS	D	107	-49.583	29.42	39.121	1	104.09	C
ATOM	5436	CG	LYS	D	107	-49.098	28.009	39.439	1	113.93	C
ATOM	5437	CD	LYS	D	107	-49.478	26.991	38.367	1	126.73	C
ATOM	5438	CE	LYS	D	107	-48.298	26.601	37.486	1	131.98	C
ATOM	5439	NZ	LYS	D	107	-47.33	25.713	38.2	1	132.71	N
ATOM	5440	C	LYS	D	107	-51.86	28.843	40.123	1	105.03	C
ATOM	5441	O	LYS	D	107	-51.606	28.994	41.33	1	107.21	O
ATOM	5442	N	LEU	D	108	-52.789	28.007	39.657	1	101.07	N
ATOM	5443	CA	LEU	D	108	-53.615	27.163	40.504	1	94.5	C
ATOM	5444	CB	LEU	D	108	-55.017	27.098	39.91	1	95.72	C
ATOM	5445	CG	LEU	D	108	-56.147	26.557	40.783	1	99.88	C
ATOM	5446	CD1	LEU	D	108	-57.454	26.732	40.046	1	100.06	C
ATOM	5447	CD2	LEU	D	108	-55.966	25.096	41.146	1	106.55	C
ATOM	5448	C	LEU	D	108	-53.006	25.768	40.564	1	95.63	C
ATOM	5449	O	LEU	D	108	-52.92	25.091	39.539	1	107.72	O
ATOM	5450	N	GLU	D	109	-52.581	25.346	41.753	1	95.93	N
ATOM	5451	CA	GLU	D	109	-52.107	23.972	41.999	1	101.87	C
ATOM	5452	CB	GLU	D	109	-50.807	23.989	42.823	1	112.19	C
ATOM	5453	CG	GLU	D	109	-49.704	24.925	42.312	1	120.53	C

ATOM	5454	CD	GLU	D	109	-48.872	25.567	43.427	1	132.3	C
ATOM	5455	OE1	GLU	D	109	-49.449	26.029	44.441	1	135.66	O
ATOM	5456	OE2	GLU	D	109	-47.631	25.636	43.283	1	136.45	O
ATOM	5457	C	GLU	D	109	-53.2	23.291	42.808	1	95.14	C
ATOM	5458	O	GLU	D	109	-53.769	23.94	43.673	1	105.94	O
ATOM	5459	N	ILE	D	110	-53.518	22.019	42.564	1	82.59	N
ATOM	5460	CA	ILE	D	110	-54.495	21.331	43.442	1	80.33	C
ATOM	5461	CB	ILE	D	110	-55.494	20.455	42.664	1	81.9	C
ATOM	5462	CG1	ILE	D	110	-54.807	19.163	42.174	1	93.71	C
ATOM	5463	CD1	ILE	D	110	-55.293	18.565	40.863	1	102.26	C
ATOM	5464	CG2	ILE	D	110	-56.18	21.292	41.585	1	81.54	C
ATOM	5465	C	ILE	D	110	-53.816	20.527	44.56	1	85.72	C
ATOM	5466	O	ILE	D	110	-52.678	20.066	44.408	1	83.25	O
ATOM	5467	N	LYS	D	111	-54.531	20.369	45.677	1	95.1	N
ATOM	5468	CA	LYS	D	111	-54.024	19.682	46.878	1	98.16	C
ATOM	5469	CB	LYS	D	111	-54.41	20.473	48.119	1	94.86	C
ATOM	5470	CG	LYS	D	111	-53.51	20.212	49.303	1	103.7	C
ATOM	5471	CD	LYS	D	111	-54.001	20.947	50.54	1	109.59	C
ATOM	5472	CE	LYS	D	111	-52.857	21.26	51.496	1	113.8	C
ATOM	5473	NZ	LYS	D	111	-51.836	22.179	50.907	1	112.68	N
ATOM	5474	C	LYS	D	111	-54.532	18.236	47.015	1	109.43	C
ATOM	5475	O	LYS	D	111	-55.685	17.946	46.678	1	117.38	O
ATOM	5476	N	ARG	D	112	-53.68	17.346	47.533	1	113.86	N
ATOM	5477	CA	ARG	D	112	-54.027	15.926	47.71	1	118.17	C
ATOM	5478	CB	ARG	D	112	-53.755	15.161	46.414	1	115.64	C
ATOM	5479	CG	ARG	D	112	-52.28	15.081	46.071	1	118.78	C
ATOM	5480	CD	ARG	D	112	-52.032	14.267	44.819	1	123.98	C
ATOM	5481	NE	ARG	D	112	-52.084	12.815	45.041	1	117.16	N
ATOM	5482	CZ	ARG	D	112	-52.978	11.961	44.52	1	113.92	C
ATOM	5483	NH1	ARG	D	112	-53.973	12.36	43.724	1	106.03	N
ATOM	5484	NH2	ARG	D	112	-52.87	10.663	44.803	1	122.93	N
ATOM	5485	C	ARG	D	112	-53.271	15.258	48.874	1	124.53	C
ATOM	5486	O	ARG	D	112	-52.469	15.895	49.575	1	116.38	O
ATOM	5487	N	THR	D	113	-53.553	13.97	49.075	1	126.66	N
ATOM	5488	CA	THR	D	113	-52.818	13.149	50.03	1	127.28	C
ATOM	5489	CB	THR	D	113	-53.578	11.852	50.387	1	130.74	C
ATOM	5490	OG1	THR	D	113	-54.277	11.366	49.234	1	118.86	O
ATOM	5491	CG2	THR	D	113	-54.576	12.1	51.528	1	136.21	C
ATOM	5492	C	THR	D	113	-51.474	12.796	49.42	1	125.35	C
ATOM	5493	O	THR	D	113	-51.395	12.514	48.219	1	124.92	O
ATOM	5494	N	VAL	D	114	-50.432	12.807	50.256	1	121.98	N
ATOM	5495	CA	VAL	D	114	-49.058	12.565	49.812	1	116.34	C
ATOM	5496	CB	VAL	D	114	-48.052	12.614	50.986	1	117.15	C
ATOM	5497	CG1	VAL	D	114	-46.696	12.017	50.607	1	116.98	C

ATOM	5498	CG2	VAL	D	114	-47.88	14.047	51.463	1	126.62	C
ATOM	5499	C	VAL	D	114	-48.946	11.22	49.115	1	118.26	C
ATOM	5500	O	VAL	D	114	-49.339	10.192	49.671	1	117.71	O
ATOM	5501	N	ALA	D	115	-48.421	11.257	47.891	1	122.65	N
ATOM	5502	CA	ALA	D	115	-48.036	10.068	47.149	1	126.14	C
ATOM	5503	CB	ALA	D	115	-48.575	10.132	45.729	1	127.05	C
ATOM	5504	C	ALA	D	115	-46.511	9.951	47.133	1	123	C
ATOM	5505	O	ALA	D	115	-45.791	10.949	47.033	1	114.22	O
ATOM	5506	N	ALA	D	116	-46.028	8.722	47.255	1	124.61	N
ATOM	5507	CA	ALA	D	116	-44.636	8.426	46.99	1	124.15	C
ATOM	5508	CB	ALA	D	116	-44.174	7.226	47.806	1	131.44	C
ATOM	5509	C	ALA	D	116	-44.5	8.159	45.484	1	123.01	C
ATOM	5510	O	ALA	D	116	-45.517	8.005	44.771	1	113.68	O
ATOM	5511	N	PRO	D	117	-43.25	8.104	44.99	1	115.78	N
ATOM	5512	CA	PRO	D	117	-43.034	7.894	43.565	1	116.13	C
ATOM	5513	CB	PRO	D	117	-41.755	8.688	43.299	1	118.86	C
ATOM	5514	CG	PRO	D	117	-41.039	8.755	44.616	1	116.03	C
ATOM	5515	CD	PRO	D	117	-41.974	8.31	45.701	1	111.65	C
ATOM	5516	C	PRO	D	117	-42.835	6.431	43.175	1	113.48	C
ATOM	5517	O	PRO	D	117	-41.991	5.764	43.752	1	117.29	O
ATOM	5518	N	SER	D	118	-43.598	5.946	42.2	1	114.67	N
ATOM	5519	CA	SER	D	118	-43.364	4.627	41.612	1	122.04	C
ATOM	5520	CB	SER	D	118	-44.484	4.259	40.625	1	131.1	C
ATOM	5521	OG	SER	D	118	-45.762	4.441	41.205	1	142.98	O
ATOM	5522	C	SER	D	118	-42.023	4.651	40.889	1	126.26	C
ATOM	5523	O	SER	D	118	-41.976	4.775	39.672	1	136.66	O
ATOM	5524	N	VAL	D	119	-40.936	4.513	41.645	1	137.9	N
ATOM	5525	CA	VAL	D	119	-39.576	4.77	41.111	1	146.48	C
ATOM	5526	CB	VAL	D	119	-38.403	4.683	42.161	1	142.13	C
ATOM	5527	CG1	VAL	D	119	-37.399	5.818	41.959	1	128.54	C
ATOM	5528	CG2	VAL	D	119	-38.868	4.674	43.613	1	146.76	C
ATOM	5529	C	VAL	D	119	-39.239	3.801	39.966	1	153.81	C
ATOM	5530	O	VAL	D	119	-39.776	2.689	39.888	1	146.98	O
ATOM	5531	N	PHE	D	120	-38.359	4.259	39.08	1	163.12	N
ATOM	5532	CA	PHE	D	120	-37.775	3.445	38.011	1	177.25	C
ATOM	5533	CB	PHE	D	120	-38.607	3.571	36.725	1	179.73	C
ATOM	5534	CG	PHE	D	120	-39.735	2.573	36.619	1	186.67	C
ATOM	5535	CD1	PHE	D	120	-39.495	1.278	36.154	1	198.42	C
ATOM	5536	CE1	PHE	D	120	-40.53	0.356	36.044	1	194.18	C
ATOM	5537	CZ	PHE	D	120	-41.822	0.72	36.397	1	189.5	C
ATOM	5538	CE2	PHE	D	120	-42.077	2.008	36.851	1	183.88	C
ATOM	5539	CD2	PHE	D	120	-41.039	2.927	36.959	1	180.31	C
ATOM	5540	C	PHE	D	120	-36.325	3.904	37.771	1	189.51	C
ATOM	5541	O	PHE	D	120	-35.942	5	38.187	1	184.88	O

ATOM	5542	N	ILE	D	121	-35.527	3.063	37.111	1	195.63	N
ATOM	5543	CA	ILE	D	121	-34.115	3.381	36.814	1	191.12	C
ATOM	5544	CB	ILE	D	121	-33.182	3.065	38.022	1	193.29	C
ATOM	5545	CG1	ILE	D	121	-31.682	3.171	37.659	1	192.02	C
ATOM	5546	CD1	ILE	D	121	-31.197	4.546	37.24	1	188.29	C
ATOM	5547	CG2	ILE	D	121	-33.471	1.681	38.602	1	190.61	C
ATOM	5548	C	ILE	D	121	-33.644	2.638	35.566	1	183.7	C
ATOM	5549	O	ILE	D	121	-33.956	1.455	35.403	1	172.52	O
ATOM	5550	N	PHE	D	122	-32.901	3.341	34.702	1	178.96	N
ATOM	5551	CA	PHE	D	122	-32.342	2.771	33.467	1	175.02	C
ATOM	5552	CB	PHE	D	122	-33.035	3.374	32.23	1	162.52	C
ATOM	5553	CG	PHE	D	122	-34.544	3.298	32.269	1	165.32	C
ATOM	5554	CD1	PHE	D	122	-35.201	2.113	32.608	1	170.34	C
ATOM	5555	CE1	PHE	D	122	-36.59	2.049	32.648	1	171.26	C
ATOM	5556	CZ	PHE	D	122	-37.344	3.164	32.328	1	168.25	C
ATOM	5557	CE2	PHE	D	122	-36.706	4.344	31.984	1	169.65	C
ATOM	5558	CD2	PHE	D	122	-35.316	4.409	31.956	1	167.59	C
ATOM	5559	C	PHE	D	122	-30.816	2.996	33.385	1	170.25	C
ATOM	5560	O	PHE	D	122	-30.351	4.106	33.675	1	154.57	O
ATOM	5561	N	PRO	D	123	-30.034	1.94	33.02	1	164.53	N
ATOM	5562	CA	PRO	D	123	-28.628	2.135	32.646	1	158.33	C
ATOM	5563	CB	PRO	D	123	-27.989	0.757	32.912	1	152.34	C
ATOM	5564	CG	PRO	D	123	-29.041	-0.086	33.55	1	149.64	C
ATOM	5565	CD	PRO	D	123	-30.341	0.5	33.114	1	157.38	C
ATOM	5566	C	PRO	D	123	-28.472	2.531	31.164	1	167.42	C
ATOM	5567	O	PRO	D	123	-29.281	2.087	30.334	1	152.63	O
ATOM	5568	N	PRO	D	124	-27.415	3.316	30.826	1	182.94	N
ATOM	5569	CA	PRO	D	124	-27.276	3.984	29.517	1	182.27	C
ATOM	5570	CB	PRO	D	124	-25.86	4.589	29.571	1	184.57	C
ATOM	5571	CG	PRO	D	124	-25.129	3.754	30.555	1	185.97	C
ATOM	5572	CD	PRO	D	124	-26.157	3.404	31.595	1	189.84	C
ATOM	5573	C	PRO	D	124	-27.387	3.036	28.335	1	166.06	C
ATOM	5574	O	PRO	D	124	-26.933	1.895	28.423	1	159.36	O
ATOM	5575	N	SER	D	125	-27.983	3.514	27.244	1	159.23	N
ATOM	5576	CA	SER	D	125	-28.128	2.71	26.031	1	171.03	C
ATOM	5577	CB	SER	D	125	-29.083	3.38	25.023	1	166.93	C
ATOM	5578	OG	SER	D	125	-28.85	4.775	24.914	1	162.94	O
ATOM	5579	C	SER	D	125	-26.755	2.419	25.404	1	181.18	C
ATOM	5580	O	SER	D	125	-25.773	3.121	25.675	1	183.73	O
ATOM	5581	N	ASP	D	126	-26.701	1.367	24.587	1	180.45	N
ATOM	5582	CA	ASP	D	126	-25.447	0.904	23.988	1	170.06	C
ATOM	5583	CB	ASP	D	126	-25.626	-0.464	23.304	1	169.07	C
ATOM	5584	CG	ASP	D	126	-26.119	-1.546	24.254	1	168.59	C
ATOM	5585	OD1	ASP	D	126	-25.683	-1.577	25.423	1	165.47	O

ATOM	5586	OD2	ASP	D	126	-26.945	-2.376	23.822	1	171.48	O
ATOM	5587	C	ASP	D	126	-24.956	1.923	22.966	1	172.39	C
ATOM	5588	O	ASP	D	126	-23.862	2.472	23.108	1	169.17	O
ATOM	5589	N	GLU	D	127	-25.806	2.194	21.973	1	170.73	N
ATOM	5590	CA	GLU	D	127	-25.488	3.053	20.819	1	167.68	C
ATOM	5591	CB	GLU	D	127	-26.741	3.223	19.956	1	163.08	C
ATOM	5592	CG	GLU	D	127	-26.478	3.814	18.581	1	167.39	C
ATOM	5593	CD	GLU	D	127	-27.684	3.737	17.662	1	167.17	C
ATOM	5594	OE1	GLU	D	127	-28.801	3.426	18.14	1	161.53	O
ATOM	5595	OE2	GLU	D	127	-27.509	3.991	16.45	1	163.01	O
ATOM	5596	C	GLU	D	127	-24.919	4.435	21.182	1	172.76	C
ATOM	5597	O	GLU	D	127	-24.104	4.988	20.445	1	164.39	O
ATOM	5598	N	GLN	D	128	-25.369	4.975	22.313	1	191.11	N
ATOM	5599	CA	GLN	D	128	-24.908	6.264	22.85	1	200.43	C
ATOM	5600	CB	GLN	D	128	-25.925	6.756	23.888	1	198.77	C
ATOM	5601	CG	GLN	D	128	-25.719	8.18	24.381	1	195.69	C
ATOM	5602	CD	GLN	D	128	-24.818	8.275	25.6	1	200.93	C
ATOM	5603	OE1	GLN	D	128	-24.733	7.349	26.415	1	200.49	O
ATOM	5604	NE2	GLN	D	128	-24.137	9.404	25.731	1	200.83	N
ATOM	5605	C	GLN	D	128	-23.505	6.191	23.473	1	208.35	C
ATOM	5606	O	GLN	D	128	-22.699	7.115	23.313	1	198.19	O
ATOM	5607	N	LEU	D	129	-23.232	5.105	24.199	1	221.11	N
ATOM	5608	CA	LEU	D	129	-21.906	4.855	24.784	1	222.73	C
ATOM	5609	CB	LEU	D	129	-21.94	3.638	25.719	1	234.77	C
ATOM	5610	CG	LEU	D	129	-22.842	3.69	26.963	1	242.84	C
ATOM	5611	CD1	LEU	D	129	-23.256	2.29	27.401	1	240.84	C
ATOM	5612	CD2	LEU	D	129	-22.158	4.422	28.108	1	248.56	C
ATOM	5613	C	LEU	D	129	-20.853	4.62	23.699	1	209.19	C
ATOM	5614	O	LEU	D	129	-19.731	5.114	23.815	1	194.77	O
ATOM	5615	N	LYS	D	130	-21.227	3.862	22.661	1	197.9	N
ATOM	5616	CA	LYS	D	130	-20.325	3.53	21.542	1	187.94	C
ATOM	5617	CB	LYS	D	130	-20.708	2.174	20.906	1	172.56	C
ATOM	5618	CG	LYS	D	130	-21.947	2.185	20.016	1	166.28	C
ATOM	5619	CD	LYS	D	130	-21.633	2.448	18.544	1	166.39	C
ATOM	5620	CE	LYS	D	130	-22.407	3.642	17.998	1	166.96	C
ATOM	5621	NZ	LYS	D	130	-21.816	4.202	16.749	1	162.98	N
ATOM	5622	C	LYS	D	130	-20.198	4.642	20.475	1	197.12	C
ATOM	5623	O	LYS	D	130	-19.397	4.498	19.544	1	206.15	O
ATOM	5624	N	SER	D	131	-20.981	5.722	20.594	1	193.89	N
ATOM	5625	CA	SER	D	131	-20.779	6.949	19.792	1	182.25	C
ATOM	5626	CB	SER	D	131	-22.05	7.302	18.997	1	184.2	C
ATOM	5627	OG	SER	D	131	-23.179	7.456	19.839	1	181.72	O
ATOM	5628	C	SER	D	131	-20.307	8.162	20.62	1	161.21	C
ATOM	5629	O	SER	D	131	-20.156	9.255	20.069	1	140.5	O

ATOM	5630	N	GLY	D	132	-20.061	7.974	21.92	1	153.54	N
ATOM	5631	CA	GLY	D	132	-19.529	9.048	22.765	1	159.72	C
ATOM	5632	C	GLY	D	132	-19.612	8.777	24.258	1	160.33	C
ATOM	5633	O	GLY	D	132	-19.319	7.671	24.709	1	149.81	O
ATOM	5634	N	THR	D	133	-20.032	9.795	25.014	1	167.52	N
ATOM	5635	CA	THR	D	133	-20.109	9.752	26.489	1	169.13	C
ATOM	5636	CB	THR	D	133	-20.2	11.195	27.054	1	155.57	C
ATOM	5637	OG1	THR	D	133	-21.196	11.93	26.338	1	141.93	O
ATOM	5638	CG2	THR	D	133	-18.854	11.921	26.914	1	149.12	C
ATOM	5639	C	THR	D	133	-21.254	8.836	27.02	1	176.21	C
ATOM	5640	O	THR	D	133	-21.886	8.137	26.225	1	177.09	O
ATOM	5641	N	ALA	D	134	-21.483	8.809	28.346	1	178.67	N
ATOM	5642	CA	ALA	D	134	-22.503	7.94	28.992	1	181.61	C
ATOM	5643	CB	ALA	D	134	-21.844	7.079	30.058	1	179.31	C
ATOM	5644	C	ALA	D	134	-23.662	8.73	29.623	1	189.35	C
ATOM	5645	O	ALA	D	134	-23.423	9.717	30.324	1	199.53	O
ATOM	5646	N	SER	D	135	-24.904	8.275	29.399	1	183.4	N
ATOM	5647	CA	SER	D	135	-26.12	8.971	29.887	1	175.63	C
ATOM	5648	CB	SER	D	135	-26.891	9.589	28.711	1	163.4	C
ATOM	5649	OG	SER	D	135	-26.58	10.961	28.572	1	149.28	O
ATOM	5650	C	SER	D	135	-27.076	8.088	30.703	1	183.49	C
ATOM	5651	O	SER	D	135	-27.726	7.195	30.147	1	167.05	O
ATOM	5652	N	VAL	D	136	-27.192	8.386	32.004	1	195.22	N
ATOM	5653	CA	VAL	D	136	-28.09	7.655	32.915	1	201.03	C
ATOM	5654	CB	VAL	D	136	-27.432	7.294	34.273	1	194.35	C
ATOM	5655	CG1	VAL	D	136	-28.057	6.018	34.816	1	197.98	C
ATOM	5656	CG2	VAL	D	136	-25.925	7.121	34.15	1	193.72	C
ATOM	5657	C	VAL	D	136	-29.323	8.508	33.209	1	210.56	C
ATOM	5658	O	VAL	D	136	-29.183	9.663	33.613	1	194.4	O
ATOM	5659	N	VAL	D	137	-30.513	7.923	33.02	1	221.65	N
ATOM	5660	CA	VAL	D	137	-31.806	8.614	33.181	1	211.5	C
ATOM	5661	CB	VAL	D	137	-32.487	8.87	31.809	1	215.74	C
ATOM	5662	CG1	VAL	D	137	-33.866	9.505	31.978	1	213.2	C
ATOM	5663	CG2	VAL	D	137	-31.604	9.757	30.936	1	223.07	C
ATOM	5664	C	VAL	D	137	-32.742	7.808	34.099	1	194.76	C
ATOM	5665	O	VAL	D	137	-33.4	6.859	33.659	1	182.91	O
ATOM	5666	N	CYS	D	138	-32.783	8.204	35.371	1	183.35	N
ATOM	5667	CA	CYS	D	138	-33.665	7.605	36.383	1	169.25	C
ATOM	5668	CB	CYS	D	138	-33.068	7.808	37.78	1	168.66	C
ATOM	5669	SG	CYS	D	138	-34.112	7.327	39.17	1	159.36	S
ATOM	5670	C	CYS	D	138	-35.037	8.256	36.309	1	157.53	C
ATOM	5671	O	CYS	D	138	-35.196	9.293	35.661	1	163.32	O
ATOM	5672	N	LEU	D	139	-36.019	7.657	36.979	1	144.7	N
ATOM	5673	CA	LEU	D	139	-37.383	8.203	37.019	1	142.24	C

ATOM	5674	CB	LEU	D	139	-38.27	7.534	35.953	1	131.88	C
ATOM	5675	CG	LEU	D	139	-39.77	7.887	35.887	1	125.96	C
ATOM	5676	CD1	LEU	D	139	-39.988	9.332	35.48	1	131.23	C
ATOM	5677	CD2	LEU	D	139	-40.511	6.97	34.928	1	122.61	C
ATOM	5678	C	LEU	D	139	-38.039	8.074	38.4	1	148.14	C
ATOM	5679	O	LEU	D	139	-37.857	7.082	39.112	1	165.46	O
ATOM	5680	N	LEU	D	140	-38.797	9.105	38.756	1	137.7	N
ATOM	5681	CA	LEU	D	140	-39.708	9.084	39.885	1	129.91	C
ATOM	5682	CB	LEU	D	140	-39.268	10.091	40.946	1	121.34	C
ATOM	5683	CG	LEU	D	140	-37.773	10.015	41.278	1	123.73	C
ATOM	5684	CD1	LEU	D	140	-36.989	11.07	40.502	1	122.47	C
ATOM	5685	CD2	LEU	D	140	-37.521	10.142	42.775	1	125.14	C
ATOM	5686	C	LEU	D	140	-41.061	9.449	39.291	1	137.83	C
ATOM	5687	O	LEU	D	140	-41.148	10.382	38.48	1	136.18	O
ATOM	5688	N	ASN	D	141	-42.109	8.716	39.669	1	143.3	N
ATOM	5689	CA	ASN	D	141	-43.412	8.846	39.008	1	134.39	C
ATOM	5690	CB	ASN	D	141	-43.841	7.506	38.405	1	130.32	C
ATOM	5691	CG	ASN	D	141	-44.589	7.672	37.095	1	132.81	C
ATOM	5692	OD1	ASN	D	141	-44.084	8.295	36.153	1	117.86	O
ATOM	5693	ND2	ASN	D	141	-45.796	7.116	37.021	1	142.72	N
ATOM	5694	C	ASN	D	141	-44.53	9.388	39.895	1	128.3	C
ATOM	5695	O	ASN	D	141	-44.473	9.315	41.123	1	116.7	O
ATOM	5696	N	ASN	D	142	-45.52	9.971	39.227	1	125.72	N
ATOM	5697	CA	ASN	D	142	-46.77	10.415	39.822	1	120.04	C
ATOM	5698	CB	ASN	D	142	-47.905	9.546	39.278	1	120.59	C
ATOM	5699	CG	ASN	D	142	-48.126	9.744	37.773	1	121.17	C
ATOM	5700	OD1	ASN	D	142	-47.981	10.857	37.244	1	120.62	O
ATOM	5701	ND2	ASN	D	142	-48.475	8.666	37.077	1	116.69	N
ATOM	5702	C	ASN	D	142	-46.749	10.468	41.351	1	116.53	C
ATOM	5703	O	ASN	D	142	-47.317	9.621	42.038	1	123.67	O
ATOM	5704	N	PHE	D	143	-46.048	11.478	41.853	1	113.47	N
ATOM	5705	CA	PHE	D	143	-45.86	11.693	43.283	1	117.54	C
ATOM	5706	CB	PHE	D	143	-44.391	11.482	43.659	1	122.88	C
ATOM	5707	CG	PHE	D	143	-43.441	12.481	43.04	1	127.08	C
ATOM	5708	CD1	PHE	D	143	-43.148	13.678	43.688	1	125.69	C
ATOM	5709	CE1	PHE	D	143	-42.268	14.598	43.135	1	118.98	C
ATOM	5710	CZ	PHE	D	143	-41.658	14.33	41.925	1	114.73	C
ATOM	5711	CE2	PHE	D	143	-41.931	13.141	41.271	1	122.97	C
ATOM	5712	CD2	PHE	D	143	-42.813	12.219	41.829	1	124.46	C
ATOM	5713	C	PHE	D	143	-46.34	13.096	43.676	1	119.19	C
ATOM	5714	O	PHE	D	143	-46.693	13.901	42.807	1	115.47	O
ATOM	5715	N	TYR	D	144	-46.362	13.363	44.987	1	119.58	N
ATOM	5716	CA	TYR	D	144	-46.889	14.623	45.559	1	121.25	C
ATOM	5717	CB	TYR	D	144	-48.421	14.634	45.484	1	122.12	C

ATOM	5718	CG	TYR	D	144	-49.056	15.944	45.883	1	115.68	C
ATOM	5719	CD1	TYR	D	144	-49.336	16.229	47.213	1	109.96	C
ATOM	5720	CE1	TYR	D	144	-49.923	17.429	47.575	1	112.69	C
ATOM	5721	CZ	TYR	D	144	-50.246	18.358	46.6	1	111.62	C
ATOM	5722	OH	TYR	D	144	-50.82	19.547	46.954	1	106.21	O
ATOM	5723	CE2	TYR	D	144	-49.982	18.097	45.272	1	115.3	C
ATOM	5724	CD2	TYR	D	144	-49.393	16.894	44.92	1	118.78	C
ATOM	5725	C	TYR	D	144	-46.471	14.73	47.029	1	116.48	C
ATOM	5726	O	TYR	D	144	-46.673	13.769	47.758	1	124.75	O
ATOM	5727	N	PRO	D	145	-45.944	15.857	47.513	1	117.01	N
ATOM	5728	CA	PRO	D	145	-45.823	17.149	46.831	1	120.17	C
ATOM	5729	CB	PRO	D	145	-45.395	18.073	47.98	1	122.84	C
ATOM	5730	CG	PRO	D	145	-44.572	17.193	48.858	1	120.71	C
ATOM	5731	CD	PRO	D	145	-45.286	15.87	48.835	1	119.92	C
ATOM	5732	C	PRO	D	145	-44.768	17.208	45.724	1	128.64	C
ATOM	5733	O	PRO	D	145	-44.169	16.19	45.386	1	139.88	O
ATOM	5734	N	ARG	D	146	-44.562	18.405	45.174	1	137.06	N
ATOM	5735	CA	ARG	D	146	-43.564	18.662	44.121	1	142.72	C
ATOM	5736	CB	ARG	D	146	-43.707	20.116	43.625	1	149.23	C
ATOM	5737	CG	ARG	D	146	-42.633	20.613	42.664	1	151.08	C
ATOM	5738	CD	ARG	D	146	-42.905	22.039	42.21	1	149.44	C
ATOM	5739	NE	ARG	D	146	-43.741	22.08	41.01	1	150.04	N
ATOM	5740	CZ	ARG	D	146	-43.32	21.847	39.762	1	148.89	C
ATOM	5741	NH1	ARG	D	146	-42.046	21.539	39.503	1	143.63	N
ATOM	5742	NH2	ARG	D	146	-44.189	21.917	38.753	1	147.84	N
ATOM	5743	C	ARG	D	146	-42.099	18.383	44.525	1	145.44	C
ATOM	5744	O	ARG	D	146	-41.321	17.928	43.684	1	132.4	O
ATOM	5745	N	GLU	D	147	-41.731	18.656	45.785	1	156.5	N
ATOM	5746	CA	GLU	D	147	-40.313	18.633	46.225	1	157.11	C
ATOM	5747	CB	GLU	D	147	-40.101	19.494	47.479	1	153.92	C
ATOM	5748	CG	GLU	D	147	-40.61	20.929	47.384	1	155.78	C
ATOM	5749	CD	GLU	D	147	-41.844	21.187	48.239	1	152.8	C
ATOM	5750	OE1	GLU	D	147	-42.813	20.396	48.165	1	144.22	O
ATOM	5751	OE2	GLU	D	147	-41.839	22.189	48.987	1	145.29	O
ATOM	5752	C	GLU	D	147	-39.763	17.226	46.512	1	165.36	C
ATOM	5753	O	GLU	D	147	-40.294	16.513	47.376	1	152.31	O
ATOM	5754	N	ALA	D	148	-38.679	16.861	45.811	1	175.99	N
ATOM	5755	CA	ALA	D	148	-38.026	15.542	45.933	1	179.03	C
ATOM	5756	CB	ALA	D	148	-38.467	14.634	44.792	1	176.79	C
ATOM	5757	C	ALA	D	148	-36.491	15.643	45.959	1	178.95	C
ATOM	5758	O	ALA	D	148	-35.922	16.691	45.624	1	151.63	O
ATOM	5759	N	LYS	D	149	-35.844	14.538	46.357	1	191.56	N
ATOM	5760	CA	LYS	D	149	-34.373	14.426	46.427	1	188.68	C
ATOM	5761	CB	LYS	D	149	-33.904	14.368	47.886	1	187.09	C

ATOM	5762	CG	LYS	D	149	-32.472	13.878	48.073	1	185.23	C
ATOM	5763	CD	LYS	D	149	-31.911	14.251	49.429	1	185.76	C
ATOM	5764	CE	LYS	D	149	-30.548	13.616	49.637	1	187.18	C
ATOM	5765	NZ	LYS	D	149	-29.635	14.525	50.377	1	197.23	N
ATOM	5766	C	LYS	D	149	-33.839	13.21	45.648	1	183.25	C
ATOM	5767	O	LYS	D	149	-34.185	12.055	45.946	1	171.37	O
ATOM	5768	N	VAL	D	150	-32.974	13.501	44.674	1	177.04	N
ATOM	5769	CA	VAL	D	150	-32.372	12.506	43.791	1	185.47	C
ATOM	5770	CB	VAL	D	150	-32.912	12.636	42.343	1	187.78	C
ATOM	5771	CG1	VAL	D	150	-32.05	11.872	41.339	1	188.37	C
ATOM	5772	CG2	VAL	D	150	-34.353	12.151	42.267	1	187.15	C
ATOM	5773	C	VAL	D	150	-30.86	12.702	43.797	1	188.22	C
ATOM	5774	O	VAL	D	150	-30.371	13.761	43.4	1	181.75	O
ATOM	5775	N	GLN	D	151	-30.143	11.669	44.244	1	196.97	N
ATOM	5776	CA	GLN	D	151	-28.68	11.615	44.205	1	188.45	C
ATOM	5777	CB	GLN	D	151	-28.099	11.74	45.614	1	177.38	C
ATOM	5778	CG	GLN	D	151	-27.799	13.17	46.037	1	169.31	C
ATOM	5779	CD	GLN	D	151	-27.553	13.311	47.528	1	172.91	C
ATOM	5780	OE1	GLN	D	151	-27.616	12.337	48.284	1	182.8	O
ATOM	5781	NE2	GLN	D	151	-27.277	14.533	47.963	1	166.13	N
ATOM	5782	C	GLN	D	151	-28.229	10.299	43.578	1	192.16	C
ATOM	5783	O	GLN	D	151	-28.741	9.225	43.923	1	177.17	O
ATOM	5784	N	TRP	D	152	-27.27	10.398	42.66	1	199.76	N
ATOM	5785	CA	TRP	D	152	-26.669	9.231	42.03	1	201.78	C
ATOM	5786	CB	TRP	D	152	-26.161	9.576	40.634	1	195.47	C
ATOM	5787	CG	TRP	D	152	-27.223	9.964	39.654	1	185.55	C
ATOM	5788	CD1	TRP	D	152	-27.636	11.229	39.348	1	184.13	C
ATOM	5789	NE1	TRP	D	152	-28.612	11.19	38.382	1	176.13	N
ATOM	5790	CE2	TRP	D	152	-28.843	9.884	38.04	1	169.48	C
ATOM	5791	CD2	TRP	D	152	-27.981	9.083	38.821	1	171.39	C
ATOM	5792	CE3	TRP	D	152	-28.019	7.693	38.661	1	166.1	C
ATOM	5793	CZ3	TRP	D	152	-28.909	7.154	37.742	1	163.41	C
ATOM	5794	CH2	TRP	D	152	-29.751	7.978	36.975	1	156.9	C
ATOM	5795	CZ2	TRP	D	152	-29.735	9.341	37.114	1	161.8	C
ATOM	5796	C	TRP	D	152	-25.517	8.714	42.894	1	211.2	C
ATOM	5797	O	TRP	D	152	-24.366	9.144	42.742	1	202.44	O
ATOM	5798	N	LYS	D	153	-25.847	7.811	43.819	1	213.25	N
ATOM	5799	CA	LYS	D	153	-24.843	7.13	44.646	1	203.24	C
ATOM	5800	CB	LYS	D	153	-25.508	6.265	45.745	1	194.1	C
ATOM	5801	CG	LYS	D	153	-25.688	6.929	47.114	1	179.66	C
ATOM	5802	CD	LYS	D	153	-24.389	6.967	47.926	1	171.02	C
ATOM	5803	CE	LYS	D	153	-24.604	6.973	49.436	1	151.81	C
ATOM	5804	NZ	LYS	D	153	-24.286	5.648	50.038	1	142.7	N
ATOM	5805	C	LYS	D	153	-23.951	6.266	43.748	1	209.61	C

ATOM	5806	O	LYS	D	153	-24.366	5.183	43.331	1	223.63	O
ATOM	5807	N	VAL	D	154	-22.753	6.768	43.425	1	199.69	N
ATOM	5808	CA	VAL	D	154	-21.752	5.988	42.67	1	194.26	C
ATOM	5809	CB	VAL	D	154	-21.016	6.821	41.569	1	179.73	C
ATOM	5810	CG1	VAL	D	154	-22.023	7.446	40.611	1	170.94	C
ATOM	5811	CG2	VAL	D	154	-20.087	7.888	42.145	1	181.92	C
ATOM	5812	C	VAL	D	154	-20.778	5.265	43.628	1	192.75	C
ATOM	5813	O	VAL	D	154	-19.849	5.866	44.173	1	198.26	O
ATOM	5814	N	ASP	D	155	-21.046	3.975	43.855	1	183.39	N
ATOM	5815	CA	ASP	D	155	-20.145	3.058	44.565	1	182.85	C
ATOM	5816	CB	ASP	D	155	-18.798	2.913	43.828	1	200.75	C
ATOM	5817	CG	ASP	D	155	-18.948	2.544	42.358	1	215.44	C
ATOM	5818	OD1	ASP	D	155	-19.994	2.839	41.741	1	221.71	O
ATOM	5819	OD2	ASP	D	155	-17.992	1.957	41.807	1	227.38	O
ATOM	5820	C	ASP	D	155	-19.899	3.524	45.988	1	175.49	C
ATOM	5821	O	ASP	D	155	-18.754	3.577	46.43	1	181.27	O
ATOM	5822	N	ASN	D	156	-20.978	3.871	46.69	1	170.9	N
ATOM	5823	CA	ASN	D	156	-20.934	4.542	48.014	1	180.31	C
ATOM	5824	CB	ASN	D	156	-19.962	3.875	49.02	1	175.9	C
ATOM	5825	CG	ASN	D	156	-20.058	2.352	49.034	1	170.5	C
ATOM	5826	OD1	ASN	D	156	-21.003	1.766	48.499	1	180.21	O
ATOM	5827	ND2	ASN	D	156	-19.065	1.705	49.643	1	152.16	N
ATOM	5828	C	ASN	D	156	-20.667	6.064	47.953	1	190.45	C
ATOM	5829	O	ASN	D	156	-21.249	6.806	48.748	1	201.24	O
ATOM	5830	N	ALA	D	157	-19.806	6.527	47.032	1	190.97	N
ATOM	5831	CA	ALA	D	157	-19.544	7.975	46.818	1	185.24	C
ATOM	5832	CB	ALA	D	157	-18.269	8.175	45.996	1	176.19	C
ATOM	5833	C	ALA	D	157	-20.746	8.655	46.143	1	197.08	C
ATOM	5834	O	ALA	D	157	-21.812	8.046	46.04	1	202.3	O
ATOM	5835	N	LEU	D	158	-20.593	9.901	45.683	1	209.15	N
ATOM	5836	CA	LEU	D	158	-21.738	10.664	45.145	1	214	C
ATOM	5837	CB	LEU	D	158	-22.43	11.361	46.32	1	217.92	C
ATOM	5838	CG	LEU	D	158	-23.946	11.521	46.495	1	220.66	C
ATOM	5839	CD1	LEU	D	158	-24.683	10.209	46.304	1	226.47	C
ATOM	5840	CD2	LEU	D	158	-24.23	12.101	47.875	1	208.68	C
ATOM	5841	C	LEU	D	158	-21.333	11.674	44.046	1	197.34	C
ATOM	5842	O	LEU	D	158	-20.159	11.763	43.688	1	190.58	O
ATOM	5843	N	GLN	D	159	-22.312	12.412	43.514	1	185.98	N
ATOM	5844	CA	GLN	D	159	-22.11	13.338	42.384	1	186.57	C
ATOM	5845	CB	GLN	D	159	-22.886	12.837	41.159	1	174.31	C
ATOM	5846	CG	GLN	D	159	-22.748	11.357	40.835	1	172.78	C
ATOM	5847	CD	GLN	D	159	-21.457	11.018	40.122	1	173.56	C
ATOM	5848	OE1	GLN	D	159	-21.47	10.494	39.007	1	165.51	O
ATOM	5849	NE2	GLN	D	159	-20.335	11.313	40.76	1	178.39	N

ATOM	5850	C	GLN	D	159	-22.588	14.76	42.717	1	202.7	C
ATOM	5851	O	GLN	D	159	-23.564	14.923	43.45	1	226.18	O
ATOM	5852	N	SER	D	160	-21.916	15.781	42.171	1	201.72	N
ATOM	5853	CA	SER	D	160	-22.356	17.189	42.312	1	193.34	C
ATOM	5854	CB	SER	D	160	-22.027	17.73	43.708	1	191.61	C
ATOM	5855	OG	SER	D	160	-22.675	18.97	43.936	1	185.22	O
ATOM	5856	C	SER	D	160	-21.736	18.11	41.246	1	184.56	C
ATOM	5857	O	SER	D	160	-20.518	18.264	41.198	1	182.19	O
ATOM	5858	N	GLY	D	161	-22.585	18.732	40.423	1	180.14	N
ATOM	5859	CA	GLY	D	161	-22.16	19.538	39.261	1	170.6	C
ATOM	5860	C	GLY	D	161	-22.11	18.771	37.939	1	163.54	C
ATOM	5861	O	GLY	D	161	-21.407	19.176	37.005	1	148.82	O
ATOM	5862	N	ASN	D	162	-22.863	17.671	37.858	1	159.1	N
ATOM	5863	CA	ASN	D	162	-22.832	16.766	36.698	1	161.78	C
ATOM	5864	CB	ASN	D	162	-21.649	15.789	36.858	1	157.71	C
ATOM	5865	CG	ASN	D	162	-21.563	15.17	38.256	1	155.18	C
ATOM	5866	OD1	ASN	D	162	-22.386	15.44	39.135	1	134.88	O
ATOM	5867	ND2	ASN	D	162	-20.546	14.343	38.466	1	156.64	N
ATOM	5868	C	ASN	D	162	-24.148	15.997	36.406	1	168.41	C
ATOM	5869	O	ASN	D	162	-24.131	14.998	35.672	1	169.02	O
ATOM	5870	N	SER	D	163	-25.28	16.486	36.931	1	162.96	N
ATOM	5871	CA	SER	D	163	-26.582	15.808	36.799	1	155.55	C
ATOM	5872	CB	SER	D	163	-26.824	14.872	37.994	1	143.57	C
ATOM	5873	OG	SER	D	163	-26.698	15.546	39.236	1	120.9	O
ATOM	5874	C	SER	D	163	-27.744	16.809	36.647	1	159.63	C
ATOM	5875	O	SER	D	163	-27.843	17.776	37.405	1	148.91	O
ATOM	5876	N	GLN	D	164	-28.623	16.558	35.674	1	164.52	N
ATOM	5877	CA	GLN	D	164	-29.699	17.491	35.311	1	167.39	C
ATOM	5878	CB	GLN	D	164	-29.566	17.887	33.836	1	160.46	C
ATOM	5879	CG	GLN	D	164	-28.663	19.087	33.608	1	155.07	C
ATOM	5880	CD	GLN	D	164	-28.615	19.52	32.156	1	147.73	C
ATOM	5881	OE1	GLN	D	164	-27.539	19.722	31.602	1	142.24	O
ATOM	5882	NE2	GLN	D	164	-29.781	19.663	31.533	1	145.81	N
ATOM	5883	C	GLN	D	164	-31.101	16.925	35.548	1	172.26	C
ATOM	5884	O	GLN	D	164	-31.418	15.837	35.069	1	180.61	O
ATOM	5885	N	GLU	D	165	-31.934	17.687	36.261	1	164.26	N
ATOM	5886	CA	GLU	D	165	-33.353	17.36	36.454	1	157.82	C
ATOM	5887	CB	GLU	D	165	-33.832	17.874	37.807	1	163.07	C
ATOM	5888	CG	GLU	D	165	-33.165	17.233	39.006	1	171.11	C
ATOM	5889	CD	GLU	D	165	-33.936	17.48	40.292	1	182.46	C
ATOM	5890	OE1	GLU	D	165	-34.616	18.525	40.403	1	188.88	O
ATOM	5891	OE2	GLU	D	165	-33.866	16.622	41.196	1	191.19	O
ATOM	5892	C	GLU	D	165	-34.255	17.974	35.381	1	149.97	C
ATOM	5893	O	GLU	D	165	-33.847	18.872	34.648	1	143.76	O

ATOM	5894	N	SER	D	166	-35.488	17.476	35.312	1	144.53	N
ATOM	5895	CA	SER	D	166	-36.568	18.108	34.543	1	133.66	C
ATOM	5896	CB	SER	D	166	-36.43	17.815	33.051	1	131.56	C
ATOM	5897	OG	SER	D	166	-37.399	18.531	32.309	1	128.17	O
ATOM	5898	C	SER	D	166	-37.903	17.574	35.056	1	137.46	C
ATOM	5899	O	SER	D	166	-38.145	16.367	34.997	1	134.85	O
ATOM	5900	N	VAL	D	167	-38.759	18.473	35.547	1	137.82	N
ATOM	5901	CA	VAL	D	167	-39.966	18.109	36.311	1	130.66	C
ATOM	5902	CB	VAL	D	167	-40.061	18.974	37.575	1	119.21	C
ATOM	5903	CG1	VAL	D	167	-41.307	18.628	38.378	1	115	C
ATOM	5904	CG2	VAL	D	167	-38.799	18.807	38.412	1	122.04	C
ATOM	5905	C	VAL	D	167	-41.254	18.322	35.521	1	130.9	C
ATOM	5906	O	VAL	D	167	-41.427	19.381	34.921	1	144.14	O
ATOM	5907	N	THR	D	168	-42.174	17.352	35.57	1	127.37	N
ATOM	5908	CA	THR	D	168	-43.446	17.466	34.822	1	128.51	C
ATOM	5909	CB	THR	D	168	-44.149	16.107	34.461	1	122.2	C
ATOM	5910	OG1	THR	D	168	-45.041	15.673	35.497	1	108.23	O
ATOM	5911	CG2	THR	D	168	-43.154	15.01	34.163	1	126.72	C
ATOM	5912	C	THR	D	168	-44.412	18.366	35.583	1	133.84	C
ATOM	5913	O	THR	D	168	-44.245	18.623	36.783	1	126.05	O
ATOM	5914	N	GLU	D	169	-45.416	18.848	34.861	1	135.5	N
ATOM	5915	CA	GLU	D	169	-46.467	19.649	35.462	1	128.82	C
ATOM	5916	CB	GLU	D	169	-47.113	20.576	34.424	1	134.62	C
ATOM	5917	CG	GLU	D	169	-46.442	21.936	34.358	1	142.07	C
ATOM	5918	CD	GLU	D	169	-46.935	22.877	35.441	1	150.98	C
ATOM	5919	OE1	GLU	D	169	-46.645	22.618	36.629	1	155.62	O
ATOM	5920	OE2	GLU	D	169	-47.609	23.876	35.103	1	159.93	O
ATOM	5921	C	GLU	D	169	-47.496	18.752	36.122	1	119.77	C
ATOM	5922	O	GLU	D	169	-47.516	17.532	35.926	1	123.66	O
ATOM	5923	N	GLN	D	170	-48.352	19.381	36.909	1	107.95	N
ATOM	5924	CA	GLN	D	170	-49.387	18.681	37.647	1	107.98	C
ATOM	5925	CB	GLN	D	170	-50.07	19.666	38.591	1	109.23	C
ATOM	5926	CG	GLN	D	170	-50.926	19.04	39.681	1	104	C
ATOM	5927	CD	GLN	D	170	-50.804	19.774	41.001	1	97.61	C
ATOM	5928	OE1	GLN	D	170	-50.345	20.913	41.054	1	91.69	O
ATOM	5929	NE2	GLN	D	170	-51.202	19.116	42.079	1	102.67	N
ATOM	5930	C	GLN	D	170	-50.405	18.035	36.697	1	110.78	C
ATOM	5931	O	GLN	D	170	-51.084	18.728	35.92	1	107.47	O
ATOM	5932	N	ASP	D	171	-50.49	16.707	36.765	1	111.77	N
ATOM	5933	CA	ASP	D	171	-51.337	15.922	35.867	1	115.22	C
ATOM	5934	CB	ASP	D	171	-51.155	14.424	36.146	1	121.6	C
ATOM	5935	CG	ASP	D	171	-51.715	13.533	35.041	1	132.24	C
ATOM	5936	OD1	ASP	D	171	-52.454	14.021	34.163	1	142.41	O
ATOM	5937	OD2	ASP	D	171	-51.427	12.319	35.06	1	138.01	O

ATOM	5938	C	ASP	D	171	-52.815	16.324	35.986	1	111.69	C
ATOM	5939	O	ASP	D	171	-53.293	16.693	37.067	1	113.77	O
ATOM	5940	N	SER	D	172	-53.516	16.248	34.857	1	103.71	N
ATOM	5941	CA	SER	D	172	-54.888	16.728	34.739	1	106.06	C
ATOM	5942	CB	SER	D	172	-55.205	17.047	33.283	1	119.45	C
ATOM	5943	OG	SER	D	172	-54.302	18.019	32.792	1	139.89	O
ATOM	5944	C	SER	D	172	-55.92	15.754	35.251	1	98.62	C
ATOM	5945	O	SER	D	172	-57.092	16.087	35.321	1	100.14	O
ATOM	5946	N	LYS	D	173	-55.495	14.541	35.559	1	102.08	N
ATOM	5947	CA	LYS	D	173	-56.339	13.563	36.255	1	107.74	C
ATOM	5948	CB	LYS	D	173	-56.721	12.391	35.324	1	122.87	C
ATOM	5949	CG	LYS	D	173	-55.635	11.921	34.344	1	141.75	C
ATOM	5950	CD	LYS	D	173	-55.551	12.768	33.063	1	151.2	C
ATOM	5951	CE	LYS	D	173	-56.079	12.071	31.808	1	154.08	C
ATOM	5952	NZ	LYS	D	173	-55.006	11.325	31.083	1	156.65	N
ATOM	5953	C	LYS	D	173	-55.647	13.079	37.533	1	99.29	C
ATOM	5954	O	LYS	D	173	-56.268	13.012	38.59	1	90.89	O
ATOM	5955	N	ASP	D	174	-54.353	12.793	37.433	1	99.34	N
ATOM	5956	CA	ASP	D	174	-53.579	12.196	38.516	1	109.45	C
ATOM	5957	CB	ASP	D	174	-52.37	11.458	37.907	1	119.42	C
ATOM	5958	CG	ASP	D	174	-51.908	10.28	38.747	1	127.38	C
ATOM	5959	OD1	ASP	D	174	-51.268	10.526	39.797	1	123.23	O
ATOM	5960	OD2	ASP	D	174	-52.176	9.112	38.346	1	121.57	O
ATOM	5961	C	ASP	D	174	-53.13	13.193	39.61	1	105.62	C
ATOM	5962	O	ASP	D	174	-52.778	12.771	40.714	1	91.46	O
ATOM	5963	N	SER	D	175	-53.146	14.497	39.298	1	109.17	N
ATOM	5964	CA	SER	D	175	-52.845	15.579	40.263	1	102.1	C
ATOM	5965	CB	SER	D	175	-53.874	15.567	41.39	1	101.06	C
ATOM	5966	OG	SER	D	175	-55.161	15.289	40.872	1	104.39	O
ATOM	5967	C	SER	D	175	-51.439	15.497	40.859	1	100.65	C
ATOM	5968	O	SER	D	175	-51.203	15.979	41.969	1	91.01	O
ATOM	5969	N	THR	D	176	-50.516	14.912	40.097	1	104.73	N
ATOM	5970	CA	THR	D	176	-49.195	14.535	40.58	1	109.02	C
ATOM	5971	CB	THR	D	176	-49.091	13.011	40.688	1	115.69	C
ATOM	5972	OG1	THR	D	176	-49.681	12.42	39.525	1	112.23	O
ATOM	5973	CG2	THR	D	176	-49.789	12.501	41.93	1	121.31	C
ATOM	5974	C	THR	D	176	-48.092	14.969	39.631	1	113.83	C
ATOM	5975	O	THR	D	176	-48.342	15.277	38.46	1	115.92	O
ATOM	5976	N	TYR	D	177	-46.867	14.938	40.155	1	117.83	N
ATOM	5977	CA	TYR	D	177	-45.652	15.321	39.435	1	116.87	C
ATOM	5978	CB	TYR	D	177	-44.831	16.316	40.257	1	117.41	C
ATOM	5979	CG	TYR	D	177	-45.615	17.487	40.817	1	120.92	C
ATOM	5980	CD1	TYR	D	177	-46.371	17.352	41.98	1	130.24	C
ATOM	5981	CE1	TYR	D	177	-47.091	18.416	42.503	1	131.62	C

ATOM	5982	CZ	TYR	D	177	-47.056	19.64	41.872	1	127.9	C
ATOM	5983	OH	TYR	D	177	-47.775	20.687	42.405	1	127.75	O
ATOM	5984	CE2	TYR	D	177	-46.302	19.804	40.721	1	126.22	C
ATOM	5985	CD2	TYR	D	177	-45.589	18.731	40.201	1	121.74	C
ATOM	5986	C	TYR	D	177	-44.802	14.082	39.169	1	116.19	C
ATOM	5987	O	TYR	D	177	-44.943	13.068	39.851	1	118.42	O
ATOM	5988	N	SER	D	178	-43.933	14.182	38.164	1	118.37	N
ATOM	5989	CA	SER	D	178	-42.945	13.147	37.824	1	118.46	C
ATOM	5990	CB	SER	D	178	-43.42	12.3	36.625	1	118.95	C
ATOM	5991	OG	SER	D	178	-44.844	12.157	36.578	1	112.53	O
ATOM	5992	C	SER	D	178	-41.609	13.872	37.544	1	124.48	C
ATOM	5993	O	SER	D	178	-41.592	15.103	37.447	1	124.32	O
ATOM	5994	N	LEU	D	179	-40.498	13.137	37.437	1	132.1	N
ATOM	5995	CA	LEU	D	179	-39.164	13.769	37.369	1	139.38	C
ATOM	5996	CB	LEU	D	179	-38.684	14.106	38.776	1	140.89	C
ATOM	5997	CG	LEU	D	179	-37.536	15.119	38.83	1	153.94	C
ATOM	5998	CD1	LEU	D	179	-37.524	15.798	40.194	1	165.31	C
ATOM	5999	CD2	LEU	D	179	-36.166	14.519	38.513	1	156.21	C
ATOM	6000	C	LEU	D	179	-38.1	12.913	36.687	1	149.12	C
ATOM	6001	O	LEU	D	179	-37.883	11.776	37.094	1	160.01	O
ATOM	6002	N	SER	D	180	-37.396	13.488	35.707	1	162.68	N
ATOM	6003	CA	SER	D	180	-36.346	12.783	34.95	1	171.5	C
ATOM	6004	CB	SER	D	180	-36.628	12.827	33.439	1	167.17	C
ATOM	6005	OG	SER	D	180	-36.643	14.154	32.94	1	167.79	O
ATOM	6006	C	SER	D	180	-34.958	13.357	35.249	1	179.28	C
ATOM	6007	O	SER	D	180	-34.47	14.244	34.539	1	176.95	O
ATOM	6008	N	SER	D	181	-34.338	12.845	36.313	1	188.09	N
ATOM	6009	CA	SER	D	181	-32.958	13.188	36.661	1	189.64	C
ATOM	6010	CB	SER	D	181	-32.665	12.823	38.115	1	177.04	C
ATOM	6011	OG	SER	D	181	-31.43	13.371	38.533	1	163.99	O
ATOM	6012	C	SER	D	181	-32.003	12.445	35.723	1	204.98	C
ATOM	6013	O	SER	D	181	-32.155	11.237	35.527	1	199.8	O
ATOM	6014	N	THR	D	182	-31.028	13.169	35.161	1	220.53	N
ATOM	6015	CA	THR	D	182	-30.139	12.658	34.103	1	220.3	C
ATOM	6016	CB	THR	D	182	-30.457	13.311	32.735	1	217.78	C
ATOM	6017	OG1	THR	D	182	-31.831	13.086	32.397	1	221.03	O
ATOM	6018	CG2	THR	D	182	-29.566	12.741	31.624	1	214.03	C
ATOM	6019	C	THR	D	182	-28.658	12.908	34.425	1	221.79	C
ATOM	6020	O	THR	D	182	-28.21	14.058	34.422	1	224.67	O
ATOM	6021	N	LEU	D	183	-27.909	11.832	34.681	1	216.24	N
ATOM	6022	CA	LEU	D	183	-26.463	11.917	34.934	1	209.57	C
ATOM	6023	CB	LEU	D	183	-25.984	10.697	35.733	1	190.93	C
ATOM	6024	CG	LEU	D	183	-24.482	10.532	36.006	1	178.35	C
ATOM	6025	CD1	LEU	D	183	-23.856	11.767	36.64	1	168.58	C

ATOM	6026	CD2	LEU	D	183	-24.263	9.308	36.879	1	177.34	C
ATOM	6027	C	LEU	D	183	-25.691	12.025	33.612	1	221.34	C
ATOM	6028	O	LEU	D	183	-25.939	11.247	32.683	1	211.99	O
ATOM	6029	N	THR	D	184	-24.765	12.988	33.538	1	226.78	N
ATOM	6030	CA	THR	D	184	-23.914	13.201	32.359	1	223.39	C
ATOM	6031	CB	THR	D	184	-24.246	14.538	31.665	1	215.86	C
ATOM	6032	OG1	THR	D	184	-24.117	15.617	32.6	1	203.25	O
ATOM	6033	CG2	THR	D	184	-25.662	14.516	31.112	1	217.2	C
ATOM	6034	C	THR	D	184	-22.421	13.186	32.717	1	235.94	C
ATOM	6035	O	THR	D	184	-21.886	14.177	33.226	1	251.67	O
ATOM	6036	N	LEU	D	185	-21.774	12.043	32.472	1	233.38	N
ATOM	6037	CA	LEU	D	185	-20.302	11.905	32.49	1	217.62	C
ATOM	6038	CB	LEU	D	185	-19.789	11.416	33.862	1	203.71	C
ATOM	6039	CG	LEU	D	185	-19.547	12.436	34.987	1	189.33	C
ATOM	6040	CD1	LEU	D	185	-19.283	11.713	36.3	1	184.34	C
ATOM	6041	CD2	LEU	D	185	-18.396	13.381	34.667	1	181.65	C
ATOM	6042	C	LEU	D	185	-19.871	10.944	31.363	1	210.88	C
ATOM	6043	O	LEU	D	185	-20.704	10.238	30.786	1	195.39	O
ATOM	6044	N	SER	D	186	-18.572	10.918	31.065	1	204.08	N
ATOM	6045	CA	SER	D	186	-18.041	10.174	29.908	1	195.42	C
ATOM	6046	CB	SER	D	186	-16.644	10.692	29.546	1	192.24	C
ATOM	6047	OG	SER	D	186	-15.801	10.732	30.685	1	188.79	O
ATOM	6048	C	SER	D	186	-18.016	8.649	30.092	1	189.8	C
ATOM	6049	O	SER	D	186	-17.961	8.151	31.218	1	183.11	O
ATOM	6050	N	LYS	D	187	-18.033	7.922	28.972	1	187.82	N
ATOM	6051	CA	LYS	D	187	-18.087	6.451	28.989	1	188.41	C
ATOM	6052	CB	LYS	D	187	-18.493	5.85	27.615	1	184.86	C
ATOM	6053	CG	LYS	D	187	-17.394	5.315	26.692	1	175.74	C
ATOM	6054	CD	LYS	D	187	-16.5	6.407	26.122	1	167.3	C
ATOM	6055	CE	LYS	D	187	-15.794	5.954	24.858	1	161.31	C
ATOM	6056	NZ	LYS	D	187	-16.73	5.677	23.736	1	161.27	N
ATOM	6057	C	LYS	D	187	-16.769	5.878	29.526	1	193.96	C
ATOM	6058	O	LYS	D	187	-16.762	4.821	30.157	1	193.67	O
ATOM	6059	N	ALA	D	188	-15.672	6.604	29.304	1	190.56	N
ATOM	6060	CA	ALA	D	188	-14.364	6.234	29.823	1	186.75	C
ATOM	6061	CB	ALA	D	188	-13.299	7.196	29.308	1	173.67	C
ATOM	6062	C	ALA	D	188	-14.405	6.226	31.355	1	197.22	C
ATOM	6063	O	ALA	D	188	-14.068	5.217	31.979	1	203.74	O
ATOM	6064	N	ASP	D	189	-14.845	7.342	31.943	1	197.71	N
ATOM	6065	CA	ASP	D	189	-15.044	7.445	33.403	1	190.15	C
ATOM	6066	CB	ASP	D	189	-15.316	8.893	33.833	1	185.47	C
ATOM	6067	CG	ASP	D	189	-14.08	9.765	33.761	1	186.27	C
ATOM	6068	OD1	ASP	D	189	-13.615	10.05	32.637	1	186.69	O
ATOM	6069	OD2	ASP	D	189	-13.579	10.174	34.83	1	178.38	O

ATOM	6070	C	ASP	D	189	-16.185	6.56	33.902	1	182.68	C
ATOM	6071	O	ASP	D	189	-16.142	6.078	35.037	1	178.67	O
ATOM	6072	N	TYR	D	190	-17.206	6.376	33.063	1	172.05	N
ATOM	6073	CA	TYR	D	190	-18.323	5.488	33.38	1	172.68	C
ATOM	6074	CB	TYR	D	190	-19.4	5.522	32.285	1	176.66	C
ATOM	6075	CG	TYR	D	190	-20.404	4.384	32.356	1	178.33	C
ATOM	6076	CD1	TYR	D	190	-21.205	4.203	33.492	1	178.25	C
ATOM	6077	CE1	TYR	D	190	-22.12	3.163	33.57	1	171.47	C
ATOM	6078	CZ	TYR	D	190	-22.247	2.289	32.502	1	175.56	C
ATOM	6079	OH	TYR	D	190	-23.154	1.261	32.583	1	182.19	O
ATOM	6080	CE2	TYR	D	190	-21.468	2.446	31.363	1	172.98	C
ATOM	6081	CD2	TYR	D	190	-20.552	3.486	31.294	1	168.03	C
ATOM	6082	C	TYR	D	190	-17.823	4.074	33.544	1	172.12	C
ATOM	6083	O	TYR	D	190	-17.913	3.508	34.634	1	158.51	O
ATOM	6084	N	GLU	D	191	-17.263	3.538	32.461	1	181.15	N
ATOM	6085	CA	GLU	D	191	-16.9	2.121	32.371	1	189.73	C
ATOM	6086	CB	GLU	D	191	-16.3	1.805	30.997	1	188.49	C
ATOM	6087	CG	GLU	D	191	-17.33	1.796	29.873	1	192.82	C
ATOM	6088	CD	GLU	D	191	-16.749	2.107	28.499	1	202.82	C
ATOM	6089	OE1	GLU	D	191	-15.533	2.383	28.385	1	194.8	O
ATOM	6090	OE2	GLU	D	191	-17.524	2.089	27.518	1	212.06	O
ATOM	6091	C	GLU	D	191	-15.971	1.611	33.486	1	193.24	C
ATOM	6092	O	GLU	D	191	-15.999	0.418	33.809	1	183.21	O
ATOM	6093	N	LYS	D	192	-15.177	2.512	34.073	1	192.36	N
ATOM	6094	CA	LYS	D	192	-14.352	2.199	35.258	1	187.58	C
ATOM	6095	CB	LYS	D	192	-12.922	2.76	35.095	1	177.15	C
ATOM	6096	CG	LYS	D	192	-12.776	4.273	34.979	1	171.25	C
ATOM	6097	CD	LYS	D	192	-11.474	4.635	34.279	1	162.22	C
ATOM	6098	CE	LYS	D	192	-11.232	6.133	34.277	1	162.29	C
ATOM	6099	NZ	LYS	D	192	-9.796	6.45	34.036	1	167.71	N
ATOM	6100	C	LYS	D	192	-15.016	2.593	36.611	1	193.71	C
ATOM	6101	O	LYS	D	192	-14.37	3.145	37.508	1	182.66	O
ATOM	6102	N	HIS	D	193	-16.316	2.297	36.724	1	197.45	N
ATOM	6103	CA	HIS	D	193	-17.061	2.253	37.995	1	191.14	C
ATOM	6104	CB	HIS	D	193	-17.806	3.581	38.242	1	195.32	C
ATOM	6105	CG	HIS	D	193	-17.07	4.567	39.104	1	189.01	C
ATOM	6106	ND1	HIS	D	193	-17.518	5.859	39.287	1	182.68	N
ATOM	6107	CE1	HIS	D	193	-16.69	6.504	40.09	1	177.7	C
ATOM	6108	NE2	HIS	D	193	-15.717	5.679	40.431	1	179.9	N
ATOM	6109	CD2	HIS	D	193	-15.93	4.461	39.83	1	182.25	C
ATOM	6110	C	HIS	D	193	-18.041	1.047	37.921	1	184.92	C
ATOM	6111	O	HIS	D	193	-18.066	0.336	36.905	1	162.2	O
ATOM	6112	N	LYS	D	194	-18.842	0.82	38.969	1	187.87	N
ATOM	6113	CA	LYS	D	194	-19.678	-0.398	39.05	1	197.57	C

ATOM	6114	CB	LYS	D	194	-18.822	-1.588	39.539	1	205.16	C
ATOM	6115	CG	LYS	D	194	-17.904	-1.315	40.733	1	206.59	C
ATOM	6116	CD	LYS	D	194	-16.716	-2.27	40.789	1	202.5	C
ATOM	6117	CE	LYS	D	194	-15.566	-1.812	39.902	1	195.4	C
ATOM	6118	NZ	LYS	D	194	-14.378	-2.697	40.041	1	188.86	N
ATOM	6119	C	LYS	D	194	-21.011	-0.296	39.842	1	198.1	C
ATOM	6120	O	LYS	D	194	-22.083	-0.459	39.252	1	187.9	O
ATOM	6121	N	VAL	D	195	-20.949	-0.044	41.152	1	205.08	N
ATOM	6122	CA	VAL	D	195	-22.146	-0.041	42.025	1	207.77	C
ATOM	6123	CB	VAL	D	195	-21.8	-0.508	43.476	1	200.72	C
ATOM	6124	CG1	VAL	D	195	-23.051	-0.586	44.358	1	187.94	C
ATOM	6125	CG2	VAL	D	195	-21.082	-1.852	43.452	1	203.79	C
ATOM	6126	C	VAL	D	195	-22.825	1.341	42.059	1	216.02	C
ATOM	6127	O	VAL	D	195	-22.61	2.117	42.992	1	215.68	O
ATOM	6128	N	TYR	D	196	-23.654	1.636	41.052	1	222.86	N
ATOM	6129	CA	TYR	D	196	-24.394	2.917	40.979	1	221.76	C
ATOM	6130	CB	TYR	D	196	-24.522	3.438	39.546	1	220.44	C
ATOM	6131	CG	TYR	D	196	-23.301	3.327	38.665	1	220.2	C
ATOM	6132	CD1	TYR	D	196	-23.056	2.165	37.941	1	223.87	C
ATOM	6133	CE1	TYR	D	196	-21.96	2.055	37.11	1	231.48	C
ATOM	6134	CZ	TYR	D	196	-21.093	3.12	36.978	1	231.42	C
ATOM	6135	OH	TYR	D	196	-20.011	2.987	36.145	1	246.08	O
ATOM	6136	CE2	TYR	D	196	-21.316	4.298	37.674	1	218.68	C
ATOM	6137	CD2	TYR	D	196	-22.421	4.398	38.508	1	212.77	C
ATOM	6138	C	TYR	D	196	-25.809	2.744	41.539	1	225.46	C
ATOM	6139	O	TYR	D	196	-26.232	1.622	41.809	1	233.96	O
ATOM	6140	N	ALA	D	197	-26.543	3.85	41.682	1	228.22	N
ATOM	6141	CA	ALA	D	197	-27.938	3.806	42.158	1	236.49	C
ATOM	6142	CB	ALA	D	197	-27.976	3.485	43.651	1	237.1	C
ATOM	6143	C	ALA	D	197	-28.722	5.097	41.879	1	237.62	C
ATOM	6144	O	ALA	D	197	-28.15	6.101	41.451	1	239.12	O
ATOM	6145	N	CYS	D	198	-30.036	5.038	42.113	1	223.43	N
ATOM	6146	CA	CYS	D	198	-30.913	6.216	42.122	1	202.14	C
ATOM	6147	CB	CYS	D	198	-31.923	6.16	40.972	1	191.33	C
ATOM	6148	SG	CYS	D	198	-32.931	7.659	40.801	1	186.2	S
ATOM	6149	C	CYS	D	198	-31.65	6.26	43.46	1	201.88	C
ATOM	6150	O	CYS	D	198	-32.293	5.28	43.844	1	190.71	O
ATOM	6151	N	GLU	D	199	-31.564	7.398	44.154	1	208.52	N
ATOM	6152	CA	GLU	D	199	-32.13	7.551	45.503	1	205.77	C
ATOM	6153	CB	GLU	D	199	-31.086	8.148	46.45	1	195.72	C
ATOM	6154	CG	GLU	D	199	-29.916	7.217	46.723	1	188.33	C
ATOM	6155	CD	GLU	D	199	-29.118	7.634	47.942	1	184.49	C
ATOM	6156	OE1	GLU	D	199	-29.204	6.935	48.975	1	176.7	O
ATOM	6157	OE2	GLU	D	199	-28.418	8.667	47.871	1	178.76	O

ATOM	6158	C	GLU	D	199	-33.424	8.377	45.551	1	206.82	C
ATOM	6159	O	GLU	D	199	-33.632	9.307	44.764	1	186.91	O
ATOM	6160	N	VAL	D	200	-34.278	8.013	46.503	1	210.77	N
ATOM	6161	CA	VAL	D	200	-35.586	8.626	46.702	1	212.25	C
ATOM	6162	CB	VAL	D	200	-36.702	7.557	46.649	1	213.64	C
ATOM	6163	CG1	VAL	D	200	-38.083	8.198	46.621	1	224.54	C
ATOM	6164	CG2	VAL	D	200	-36.528	6.635	45.449	1	203.17	C
ATOM	6165	C	VAL	D	200	-35.574	9.259	48.088	1	205.17	C
ATOM	6166	O	VAL	D	200	-34.852	8.795	48.966	1	214.29	O
ATOM	6167	N	THR	D	201	-36.344	10.328	48.283	1	192.15	N
ATOM	6168	CA	THR	D	201	-36.57	10.881	49.631	1	194.27	C
ATOM	6169	CB	THR	D	201	-35.38	11.741	50.143	1	196	C
ATOM	6170	OG1	THR	D	201	-34.196	11.472	49.379	1	198.98	O
ATOM	6171	CG2	THR	D	201	-35.099	11.471	51.625	1	192.1	C
ATOM	6172	C	THR	D	201	-37.851	11.718	49.629	1	188.23	C
ATOM	6173	O	THR	D	201	-37.951	12.697	48.886	1	187.85	O
ATOM	6174	N	HIS	D	202	-38.828	11.328	50.45	1	178.91	N
ATOM	6175	CA	HIS	D	202	-40.179	11.885	50.348	1	161.5	C
ATOM	6176	CB	HIS	D	202	-40.831	11.374	49.054	1	167.68	C
ATOM	6177	CG	HIS	D	202	-41.651	12.396	48.346	1	167.93	C
ATOM	6178	ND1	HIS	D	202	-42.794	12.071	47.651	1	170.91	N
ATOM	6179	CE1	HIS	D	202	-43.309	13.168	47.128	1	173.16	C
ATOM	6180	NE2	HIS	D	202	-42.541	14.19	47.457	1	169.66	N
ATOM	6181	CD2	HIS	D	202	-41.496	13.734	48.219	1	164.28	C
ATOM	6182	C	HIS	D	202	-41.07	11.522	51.531	1	142.34	C
ATOM	6183	O	HIS	D	202	-40.811	10.547	52.238	1	136.69	O
ATOM	6184	N	GLN	D	203	-42.136	12.294	51.718	1	132.95	N
ATOM	6185	CA	GLN	D	203	-43.087	12.041	52.812	1	144.22	C
ATOM	6186	CB	GLN	D	203	-44.058	13.217	53.021	1	143.71	C
ATOM	6187	CG	GLN	D	203	-43.556	14.296	53.969	1	142.31	C
ATOM	6188	CD	GLN	D	203	-42.44	15.138	53.367	1	143.31	C
ATOM	6189	OE1	GLN	D	203	-41.433	14.61	52.892	1	146.36	O
ATOM	6190	NE2	GLN	D	203	-42.612	16.459	53.392	1	133.89	N
ATOM	6191	C	GLN	D	203	-43.877	10.742	52.642	1	156.01	C
ATOM	6192	O	GLN	D	203	-44.423	10.231	53.627	1	160.69	O
ATOM	6193	N	GLY	D	204	-43.941	10.205	51.418	1	159.1	N
ATOM	6194	CA	GLY	D	204	-44.529	8.883	51.18	1	156.95	C
ATOM	6195	C	GLY	D	204	-43.611	7.764	51.647	1	154.9	C
ATOM	6196	O	GLY	D	204	-43.193	6.928	50.841	1	143.17	O
ATOM	6197	N	LEU	D	205	-43.343	7.741	52.96	1	159.98	N
ATOM	6198	CA	LEU	D	205	-42.269	6.954	53.606	1	151.2	C
ATOM	6199	CB	LEU	D	205	-42.659	5.459	53.728	1	155.32	C
ATOM	6200	CG	LEU	D	205	-43.558	4.883	54.86	1	153.6	C
ATOM	6201	CD1	LEU	D	205	-42.858	3.826	55.726	1	147.01	C

ATOM	6202	CD2	LEU	D	205	-44.219	5.945	55.739	1	156.5	C
ATOM	6203	C	LEU	D	205	-40.905	7.077	52.902	1	138.45	C
ATOM	6204	O	LEU	D	205	-40.847	7.392	51.71	1	123.91	O
ATOM	6205	N	SER	D	206	-39.793	6.891	53.611	1	136.89	N
ATOM	6206	CA	SER	D	206	-39.632	7.107	55.057	1	139	C
ATOM	6207	CB	SER	D	206	-40.174	5.943	55.912	1	138.72	C
ATOM	6208	OG	SER	D	206	-39.755	6.037	57.27	1	134.65	O
ATOM	6209	C	SER	D	206	-38.123	7.323	55.23	1	141.08	C
ATOM	6210	O	SER	D	206	-37.655	8.465	55.225	1	138.64	O
ATOM	6211	N	SER	D	207	-37.369	6.228	55.343	1	147.41	N
ATOM	6212	CA	SER	D	207	-35.935	6.231	55.069	1	149.05	C
ATOM	6213	CB	SER	D	207	-35.241	5.057	55.779	1	151.18	C
ATOM	6214	OG	SER	D	207	-33.837	5.047	55.553	1	141.72	O
ATOM	6215	C	SER	D	207	-35.803	6.094	53.544	1	153.01	C
ATOM	6216	O	SER	D	207	-36.597	5.364	52.931	1	144.77	O
ATOM	6217	N	PRO	D	208	-34.829	6.807	52.925	1	150.58	N
ATOM	6218	CA	PRO	D	208	-34.592	6.74	51.477	1	143.66	C
ATOM	6219	CB	PRO	D	208	-33.17	7.315	51.338	1	141.92	C
ATOM	6220	CG	PRO	D	208	-33.039	8.276	52.467	1	142.37	C
ATOM	6221	CD	PRO	D	208	-34.002	7.862	53.551	1	146.46	C
ATOM	6222	C	PRO	D	208	-34.679	5.331	50.873	1	138.15	C
ATOM	6223	O	PRO	D	208	-33.662	4.647	50.752	1	147.51	O
ATOM	6224	N	VAL	D	209	-35.891	4.899	50.521	1	132.43	N
ATOM	6225	CA	VAL	D	209	-36.074	3.598	49.862	1	134.45	C
ATOM	6226	CB	VAL	D	209	-37.498	2.996	50.072	1	136.03	C
ATOM	6227	CG1	VAL	D	209	-37.869	2.972	51.557	1	128.52	C
ATOM	6228	CG2	VAL	D	209	-38.558	3.729	49.261	1	145.94	C
ATOM	6229	C	VAL	D	209	-35.633	3.735	48.377	1	132.16	C
ATOM	6230	O	VAL	D	209	-36.045	4.657	47.662	1	99.23	O
ATOM	6231	N	THR	D	210	-34.764	2.815	47.95	1	144.85	N
ATOM	6232	CA	THR	D	210	-33.881	3.019	46.791	1	148.54	C
ATOM	6233	CB	THR	D	210	-32.398	2.756	47.173	1	143.85	C
ATOM	6234	OG1	THR	D	210	-32.192	2.992	48.572	1	146	O
ATOM	6235	CG2	THR	D	210	-31.446	3.64	46.376	1	142.37	C
ATOM	6236	C	THR	D	210	-34.196	2.092	45.622	1	158.67	C
ATOM	6237	O	THR	D	210	-34.886	1.078	45.78	1	166.92	O
ATOM	6238	N	LYS	D	211	-33.694	2.484	44.449	1	163.29	N
ATOM	6239	CA	LYS	D	211	-33.547	1.61	43.278	1	166.83	C
ATOM	6240	CB	LYS	D	211	-34.509	2.005	42.156	1	155.08	C
ATOM	6241	CG	LYS	D	211	-35.939	1.54	42.352	1	152.59	C
ATOM	6242	CD	LYS	D	211	-36.131	0.074	41.999	1	149.3	C
ATOM	6243	CE	LYS	D	211	-37.605	-0.303	42.051	1	150.25	C
ATOM	6244	NZ	LYS	D	211	-37.878	-1.639	41.454	1	148.77	N
ATOM	6245	C	LYS	D	211	-32.116	1.753	42.778	1	181.31	C

ATOM	6246	O	LYS	D	211	-31.477	2.783	43.005	1	179.45	O
ATOM	6247	N	SER	D	212	-31.616	0.724	42.091	1	193.48	N
ATOM	6248	CA	SER	D	212	-30.226	0.72	41.616	1	182.76	C
ATOM	6249	CB	SER	D	212	-29.276	0.421	42.783	1	181.48	C
ATOM	6250	OG	SER	D	212	-29.4	-0.925	43.214	1	185.69	O
ATOM	6251	C	SER	D	212	-29.944	-0.27	40.493	1	171.07	C
ATOM	6252	O	SER	D	212	-30.781	-1.114	40.148	1	154.53	O
ATOM	6253	N	PHE	D	213	-28.748	-0.127	39.925	1	168.58	N
ATOM	6254	CA	PHE	D	213	-28.155	-1.126	39.039	1	180.13	C
ATOM	6255	CB	PHE	D	213	-28.327	-0.737	37.552	1	170.29	C
ATOM	6256	CG	PHE	D	213	-27.391	0.349	37.079	1	169.17	C
ATOM	6257	CD1	PHE	D	213	-27.617	1.68	37.413	1	167.41	C
ATOM	6258	CE1	PHE	D	213	-26.753	2.677	36.976	1	160.92	C
ATOM	6259	CZ	PHE	D	213	-25.648	2.353	36.198	1	155.05	C
ATOM	6260	CE2	PHE	D	213	-25.409	1.033	35.861	1	157	C
ATOM	6261	CD2	PHE	D	213	-26.276	0.039	36.299	1	168.51	C
ATOM	6262	C	PHE	D	213	-26.681	-1.299	39.444	1	193.48	C
ATOM	6263	O	PHE	D	213	-25.937	-0.317	39.533	1	200.01	O
ATOM	6264	N	ASN	D	214	-26.274	-2.544	39.705	1	203.2	N
ATOM	6265	CA	ASN	D	214	-24.904	-2.866	40.136	1	204.35	C
ATOM	6266	CB	ASN	D	214	-24.911	-4.104	41.055	1	215.4	C
ATOM	6267	CG	ASN	D	214	-25.758	-3.917	42.305	1	227.12	C
ATOM	6268	OD1	ASN	D	214	-25.629	-2.918	43.013	1	235.43	O
ATOM	6269	ND2	ASN	D	214	-26.613	-4.897	42.597	1	231.13	N
ATOM	6270	C	ASN	D	214	-23.993	-3.123	38.928	1	199.07	C
ATOM	6271	O	ASN	D	214	-23.235	-4.096	38.915	1	209.03	O
ATOM	6272	N	ARG	D	215	-24.05	-2.236	37.932	1	190.2	N
ATOM	6273	CA	ARG	D	215	-23.522	-2.503	36.586	1	183.98	C
ATOM	6274	CB	ARG	D	215	-21.981	-2.523	36.604	1	169.2	C
ATOM	6275	CG	ARG	D	215	-21.312	-2.347	35.25	1	164.4	C
ATOM	6276	CD	ARG	D	215	-21.294	-0.897	34.795	1	165.28	C
ATOM	6277	NE	ARG	D	215	-20.594	-0.758	33.518	1	166.1	N
ATOM	6278	CZ	ARG	D	215	-19.269	-0.681	33.361	1	168.33	C
ATOM	6279	NH1	ARG	D	215	-18.435	-0.714	34.407	1	167.4	N
ATOM	6280	NH2	ARG	D	215	-18.766	-0.571	32.131	1	163.02	N
ATOM	6281	C	ARG	D	215	-24.112	-3.808	35.998	1	190.42	C
ATOM	6282	O	ARG	D	215	-23.363	-4.702	35.598	1	205.64	O
ATOM	6283	N	GLY	D	216	-25.451	-3.905	35.963	1	183.47	N
ATOM	6284	CA	GLY	D	216	-26.178	-5.072	35.41	1	166.49	C
ATOM	6285	C	GLY	D	216	-25.809	-5.297	33.957	1	161.86	C
ATOM	6286	O	GLY	D	216	-26.541	-4.909	33.051	1	160.41	O
ATOM	6287	N	GLU	D	217	-24.664	-5.954	33.769	1	164.35	N
ATOM	6288	CA	GLU	D	217	-23.8	-5.833	32.579	1	164.69	C
ATOM	6289	CB	GLU	D	217	-24.461	-6.401	31.313	1	173.48	C

ATOM	6290	CG	GLU	D	217	-24.492	-7.922	31.28	1	184.41	C
ATOM	6291	CD	GLU	D	217	-24.885	-8.473	29.921	1	199.66	C
ATOM	6292	OE1	GLU	D	217	-26.088	-8.417	29.583	1	219.89	O
ATOM	6293	OE2	GLU	D	217	-23.993	-8.967	29.194	1	195.78	O
ATOM	6294	C	GLU	D	217	-23.25	-4.404	32.358	1	154.57	C
ATOM	6295	O	GLU	D	217	-23.742	-3.406	32.886	1	145.99	O
ATOM	6296	OXT	GLU	D	217	-22.255	-4.206	31.656	1	138.62	O
TER	6297		GLU	D	217						
ATOM	6298	N	GLN	I	1	-122.926	45.356	77.003	1	127.01	N
ATOM	6299	CA	GLN	I	1	-123.604	46.487	76.317	1	138.08	C
ATOM	6300	CB	GLN	I	1	-125.125	46.287	76.368	1	141.59	C
ATOM	6301	CG	GLN	I	1	-125.892	47.039	75.284	1	152.06	C
ATOM	6302	CD	GLN	I	1	-127.309	46.516	75.048	1	161.23	C
ATOM	6303	OE1	GLN	I	1	-127.82	45.68	75.799	1	156.62	O
ATOM	6304	NE2	GLN	I	1	-127.951	47.012	73.987	1	165.9	N
ATOM	6305	C	GLN	I	1	-123.181	47.826	76.953	1	145.2	C
ATOM	6306	O	GLN	I	1	-123.394	48.043	78.148	1	146	O
ATOM	6307	N	VAL	I	2	-122.596	48.712	76.138	1	148.92	N
ATOM	6308	CA	VAL	I	2	-121.928	49.941	76.602	1	137.66	C
ATOM	6309	CB	VAL	I	2	-120.488	50.021	76.031	1	151.24	C
ATOM	6310	CG1	VAL	I	2	-119.659	51.045	76.795	1	154.54	C
ATOM	6311	CG2	VAL	I	2	-119.804	48.655	76.066	1	150.06	C
ATOM	6312	C	VAL	I	2	-122.706	51.194	76.169	1	119.62	C
ATOM	6313	O	VAL	I	2	-122.832	51.462	74.97	1	116.74	O
ATOM	6314	N	GLN	I	3	-123.205	51.96	77.142	1	109.3	N
ATOM	6315	CA	GLN	I	3	-124.098	53.102	76.883	1	110.17	C
ATOM	6316	CB	GLN	I	3	-125.565	52.67	77.025	1	123.21	C
ATOM	6317	CG	GLN	I	3	-126.098	51.789	75.896	1	133.97	C
ATOM	6318	CD	GLN	I	3	-126.921	50.592	76.373	1	134.55	C
ATOM	6319	OE1	GLN	I	3	-126.624	49.966	77.403	1	133.76	O
ATOM	6320	NE2	GLN	I	3	-127.946	50.249	75.6	1	131.79	N
ATOM	6321	C	GLN	I	3	-123.871	54.278	77.828	1	105.86	C
ATOM	6322	O	GLN	I	3	-123.295	54.148	78.915	1	98.29	O
ATOM	6323	N	LEU	I	4	-124.362	55.43	77.4	1	108.16	N
ATOM	6324	CA	LEU	I	4	-124.354	56.624	78.216	1	120.04	C
ATOM	6325	CB	LEU	I	4	-123.347	57.626	77.668	1	129.35	C
ATOM	6326	CG	LEU	I	4	-121.91	57.086	77.654	1	139.08	C
ATOM	6327	CD1	LEU	I	4	-121.512	56.703	76.235	1	145.46	C
ATOM	6328	CD2	LEU	I	4	-120.911	58.076	78.229	1	142.12	C
ATOM	6329	C	LEU	I	4	-125.757	57.222	78.242	1	128.11	C
ATOM	6330	O	LEU	I	4	-126.331	57.513	77.187	1	124.09	O
ATOM	6331	N	LYS	I	5	-126.29	57.405	79.453	1	131.06	N
ATOM	6332	CA	LYS	I	5	-127.631	57.947	79.662	1	130.76	C
ATOM	6333	CB	LYS	I	5	-128.439	57.111	80.679	1	145.17	C

ATOM	6334	CG	LYS	I	5	-127.983	55.675	80.97	1	157.8	C
ATOM	6335	CD	LYS	I	5	-128.166	54.688	79.819	1	160.57	C
ATOM	6336	CE	LYS	I	5	-127.559	53.33	80.173	1	153.99	C
ATOM	6337	NZ	LYS	I	5	-128.017	52.222	79.293	1	145.49	N
ATOM	6338	C	LYS	I	5	-127.461	59.378	80.18	1	130.66	C
ATOM	6339	O	LYS	I	5	-126.654	59.611	81.09	1	112.79	O
ATOM	6340	N	GLN	I	6	-128.249	60.318	79.646	1	138.37	N
ATOM	6341	CA	GLN	I	6	-128.03	61.759	79.878	1	150.06	C
ATOM	6342	CB	GLN	I	6	-127.719	62.493	78.561	1	159.46	C
ATOM	6343	CG	GLN	I	6	-126.309	62.225	78.045	1	153.75	C
ATOM	6344	CD	GLN	I	6	-125.813	63.26	77.052	1	137.28	C
ATOM	6345	OE1	GLN	I	6	-126.059	63.162	75.856	1	108.16	O
ATOM	6346	NE2	GLN	I	6	-125.101	64.254	77.551	1	137.21	N
ATOM	6347	C	GLN	I	6	-129.178	62.464	80.614	1	142.29	C
ATOM	6348	O	GLN	I	6	-130.266	62.673	80.059	1	121.82	O
ATOM	6349	N	SER	I	7	-128.893	62.843	81.861	1	140.9	N
ATOM	6350	CA	SER	I	7	-129.807	63.613	82.698	1	143.78	C
ATOM	6351	CB	SER	I	7	-129.242	63.731	84.125	1	149.58	C
ATOM	6352	OG	SER	I	7	-128.661	62.507	84.549	1	159.83	O
ATOM	6353	C	SER	I	7	-130.029	65.009	82.112	1	135.97	C
ATOM	6354	O	SER	I	7	-129.073	65.757	81.93	1	127.17	O
ATOM	6355	N	GLY	I	8	-131.288	65.351	81.833	1	139.06	N
ATOM	6356	CA	GLY	I	8	-131.633	66.614	81.177	1	147.69	C
ATOM	6357	C	GLY	I	8	-132.474	67.597	81.978	1	152.71	C
ATOM	6358	O	GLY	I	8	-133.633	67.829	81.627	1	152.26	O
ATOM	6359	N	THR	I	9	-131.892	68.19	83.033	1	159.67	N
ATOM	6360	CA	THR	I	9	-132.47	69.386	83.711	1	158.09	C
ATOM	6361	CB	THR	I	9	-131.821	69.688	85.112	1	146.7	C
ATOM	6362	OG1	THR	I	9	-130.659	68.871	85.319	1	120.93	O
ATOM	6363	CG2	THR	I	9	-132.813	69.424	86.254	1	144.63	C
ATOM	6364	C	THR	I	9	-132.398	70.599	82.74	1	156.89	C
ATOM	6365	O	THR	I	9	-131.685	71.597	82.97	1	139.68	O
ATOM	6366	N	GLU	I	10	-133.215	70.506	81.685	1	155.58	N
ATOM	6367	CA	GLU	I	10	-132.973	71.182	80.395	1	162.17	C
ATOM	6368	CB	GLU	I	10	-133.154	70.173	79.24	1	157.64	C
ATOM	6369	CG	GLU	I	10	-134.558	69.608	79.033	1	151.43	C
ATOM	6370	CD	GLU	I	10	-134.559	68.316	78.233	1	154.31	C
ATOM	6371	OE1	GLU	I	10	-133.741	67.419	78.547	1	145.6	O
ATOM	6372	OE2	GLU	I	10	-135.391	68.191	77.303	1	146.36	O
ATOM	6373	C	GLU	I	10	-133.772	72.49	80.166	1	164.2	C
ATOM	6374	O	GLU	I	10	-134.302	72.752	79.072	1	133.89	O
ATOM	6375	N	LEU	I	11	-133.803	73.315	81.213	1	176.26	N
ATOM	6376	CA	LEU	I	11	-134.459	74.625	81.204	1	179.92	C
ATOM	6377	CB	LEU	I	11	-135.995	74.466	81.127	1	179.72	C

ATOM	6378	CG	LEU	I	11	-136.886	75.591	80.575	1	179.88	C
ATOM	6379	CD1	LEU	I	11	-136.444	76.099	79.208	1	180.7	C
ATOM	6380	CD2	LEU	I	11	-138.325	75.099	80.509	1	176.22	C
ATOM	6381	C	LEU	I	11	-134.048	75.33	82.503	1	170.97	C
ATOM	6382	O	LEU	I	11	-134.189	74.749	83.571	1	177.78	O
ATOM	6383	N	VAL	I	12	-133.501	76.541	82.404	1	161.66	N
ATOM	6384	CA	VAL	I	12	-133.184	77.375	83.586	1	159.72	C
ATOM	6385	CB	VAL	I	12	-131.915	76.843	84.36	1	149.81	C
ATOM	6386	CG1	VAL	I	12	-130.961	77.946	84.807	1	153.1	C
ATOM	6387	CG2	VAL	I	12	-132.304	76.03	85.593	1	139.81	C
ATOM	6388	C	VAL	I	12	-133.113	78.856	83.136	1	166.43	C
ATOM	6389	O	VAL	I	12	-132.864	79.146	81.951	1	155.75	O
ATOM	6390	N	ARG	I	13	-133.361	79.776	84.075	1	170.41	N
ATOM	6391	CA	ARG	I	13	-133.421	81.213	83.769	1	171.04	C
ATOM	6392	CB	ARG	I	13	-134.204	81.993	84.856	1	182.4	C
ATOM	6393	CG	ARG	I	13	-133.435	82.453	86.102	1	189.71	C
ATOM	6394	CD	ARG	I	13	-134.249	83.432	86.95	1	187.52	C
ATOM	6395	NE	ARG	I	13	-133.393	84.411	87.643	1	178.28	N
ATOM	6396	CZ	ARG	I	13	-133.304	84.606	88.966	1	179.23	C
ATOM	6397	NH1	ARG	I	13	-134.031	83.906	89.844	1	179.22	N
ATOM	6398	NH2	ARG	I	13	-132.469	85.538	89.426	1	180.28	N
ATOM	6399	C	ARG	I	13	-132.021	81.815	83.53	1	161.75	C
ATOM	6400	O	ARG	I	13	-131.094	81.508	84.287	1	144.47	O
ATOM	6401	N	PRO	I	14	-131.863	82.666	82.48	1	156.1	N
ATOM	6402	CA	PRO	I	14	-130.597	83.382	82.241	1	161.66	C
ATOM	6403	CB	PRO	I	14	-131.007	84.512	81.281	1	155.36	C
ATOM	6404	CG	PRO	I	14	-132.314	84.099	80.682	1	149.04	C
ATOM	6405	CD	PRO	I	14	-132.765	82.819	81.323	1	147.4	C
ATOM	6406	C	PRO	I	14	-129.922	83.97	83.493	1	166.56	C
ATOM	6407	O	PRO	I	14	-130.607	84.446	84.398	1	163.86	O
ATOM	6408	N	GLY	I	15	-128.59	83.927	83.523	1	176.75	N
ATOM	6409	CA	GLY	I	15	-127.804	84.356	84.684	1	174.53	C
ATOM	6410	C	GLY	I	15	-127.867	83.417	85.882	1	171.91	C
ATOM	6411	O	GLY	I	15	-127.606	83.849	87.009	1	162.92	O
ATOM	6412	N	ALA	I	16	-128.196	82.142	85.64	1	168.95	N
ATOM	6413	CA	ALA	I	16	-128.283	81.119	86.694	1	175.45	C
ATOM	6414	CB	ALA	I	16	-129.699	80.578	86.777	1	164.22	C
ATOM	6415	C	ALA	I	16	-127.287	79.964	86.478	1	187.01	C
ATOM	6416	O	ALA	I	16	-126.707	79.816	85.398	1	191.33	O
ATOM	6417	N	SER	I	17	-127.094	79.167	87.532	1	181.48	N
ATOM	6418	CA	SER	I	17	-126.259	77.954	87.503	1	166.43	C
ATOM	6419	CB	SER	I	17	-125.576	77.77	88.864	1	144.06	C
ATOM	6420	OG	SER	I	17	-124.791	76.593	88.909	1	127.48	O
ATOM	6421	C	SER	I	17	-127.112	76.718	87.135	1	178.48	C

ATOM	6422	O	SER	I	17	-128.344	76.803	87.113	1	185.76	O
ATOM	6423	N	VAL	I	18	-126.447	75.594	86.832	1	182.74	N
ATOM	6424	CA	VAL	I	18	-127.086	74.3	86.438	1	171.04	C
ATOM	6425	CB	VAL	I	18	-127.456	74.279	84.904	1	162.32	C
ATOM	6426	CG1	VAL	I	18	-127.885	72.898	84.39	1	150.73	C
ATOM	6427	CG2	VAL	I	18	-128.561	75.284	84.587	1	160.34	C
ATOM	6428	C	VAL	I	18	-126.148	73.117	86.827	1	171.14	C
ATOM	6429	O	VAL	I	18	-124.969	73.323	87.159	1	165.52	O
ATOM	6430	N	LYS	I	19	-126.688	71.896	86.845	1	164.65	N
ATOM	6431	CA	LYS	I	19	-125.88	70.667	86.845	1	157.3	C
ATOM	6432	CB	LYS	I	19	-125.797	70.1	88.265	1	148.98	C
ATOM	6433	CG	LYS	I	19	-125.014	68.803	88.416	1	149.89	C
ATOM	6434	CD	LYS	I	19	-125.922	67.62	88.744	1	162.83	C
ATOM	6435	CE	LYS	I	19	-125.125	66.407	89.2	1	173.67	C
ATOM	6436	NZ	LYS	I	19	-124.403	66.602	90.492	1	179.91	N
ATOM	6437	C	LYS	I	19	-126.463	69.642	85.848	1	155.13	C
ATOM	6438	O	LYS	I	19	-127.683	69.494	85.742	1	148	O
ATOM	6439	N	LEU	I	20	-125.573	68.971	85.11	1	154.31	N
ATOM	6440	CA	LEU	I	20	-125.923	67.949	84.113	1	148.25	C
ATOM	6441	CB	LEU	I	20	-125.629	68.466	82.691	1	141.02	C
ATOM	6442	CG	LEU	I	20	-126.679	68.176	81.595	1	141.19	C
ATOM	6443	CD1	LEU	I	20	-126.759	69.331	80.602	1	141.8	C
ATOM	6444	CD2	LEU	I	20	-126.436	66.867	80.85	1	136.38	C
ATOM	6445	C	LEU	I	20	-125.128	66.671	84.417	1	151.21	C
ATOM	6446	O	LEU	I	20	-123.997	66.742	84.909	1	135.59	O
ATOM	6447	N	SER	I	21	-125.721	65.51	84.129	1	163.91	N
ATOM	6448	CA	SER	I	21	-125.132	64.211	84.503	1	169.69	C
ATOM	6449	CB	SER	I	21	-125.791	63.668	85.771	1	170.2	C
ATOM	6450	OG	SER	I	21	-125.69	64.593	86.831	1	176.51	O
ATOM	6451	C	SER	I	21	-125.211	63.145	83.406	1	168.31	C
ATOM	6452	O	SER	I	21	-126.179	63.08	82.643	1	172.74	O
ATOM	6453	N	CYS	I	22	-124.179	62.303	83.369	1	155.43	N
ATOM	6454	CA	CYS	I	22	-124.036	61.222	82.397	1	148.44	C
ATOM	6455	CB	CYS	I	22	-122.844	61.53	81.454	1	145.72	C
ATOM	6456	SG	CYS	I	22	-122.614	60.507	79.957	1	139.9	S
ATOM	6457	C	CYS	I	22	-123.856	59.932	83.227	1	138.55	C
ATOM	6458	O	CYS	I	22	-123.179	59.943	84.269	1	119.69	O
ATOM	6459	N	LYS	I	23	-124.497	58.845	82.791	1	132.07	N
ATOM	6460	CA	LYS	I	23	-124.537	57.596	83.558	1	136.39	C
ATOM	6461	CB	LYS	I	23	-125.961	57.312	84.046	1	158.81	C
ATOM	6462	CG	LYS	I	23	-126.376	58.192	85.229	1	167.37	C
ATOM	6463	CD	LYS	I	23	-127.89	58.358	85.371	1	160.11	C
ATOM	6464	CE	LYS	I	23	-128.263	59.479	86.335	1	146.35	C
ATOM	6465	NZ	LYS	I	23	-128.012	59.121	87.757	1	146.12	N

ATOM	6466	C	LYS	I	23	-124.006	56.444	82.725	1	126.87	C
ATOM	6467	O	LYS	I	23	-124.524	56.157	81.641	1	105.9	O
ATOM	6468	N	ALA	I	24	-122.991	55.774	83.278	1	129.81	N
ATOM	6469	CA	ALA	I	24	-122.088	54.897	82.527	1	123.9	C
ATOM	6470	CB	ALA	I	24	-120.653	55.202	82.916	1	118.56	C
ATOM	6471	C	ALA	I	24	-122.369	53.421	82.76	1	118.74	C
ATOM	6472	O	ALA	I	24	-122.053	52.891	83.834	1	114.05	O
ATOM	6473	N	SER	I	25	-122.925	52.766	81.738	1	112.61	N
ATOM	6474	CA	SER	I	25	-123.204	51.328	81.77	1	111.96	C
ATOM	6475	CB	SER	I	25	-124.452	51.03	80.912	1	114	C
ATOM	6476	OG	SER	I	25	-124.145	50.897	79.534	1	116.82	O
ATOM	6477	C	SER	I	25	-121.949	50.485	81.37	1	110.3	C
ATOM	6478	O	SER	I	25	-120.832	50.846	81.733	1	100.59	O
ATOM	6479	N	GLY	I	26	-122.146	49.373	80.652	1	120.99	N
ATOM	6480	CA	GLY	I	26	-121.093	48.408	80.241	1	128.3	C
ATOM	6481	C	GLY	I	26	-119.689	48.39	80.838	1	123.94	C
ATOM	6482	O	GLY	I	26	-119.312	47.472	81.573	1	114.47	O
ATOM	6483	N	TYR	I	27	-118.914	49.406	80.484	1	122.91	N
ATOM	6484	CA	TYR	I	27	-117.478	49.469	80.781	1	123.84	C
ATOM	6485	CB	TYR	I	27	-116.817	50.501	79.86	1	119.17	C
ATOM	6486	CG	TYR	I	27	-117.058	51.96	80.245	1	117.37	C
ATOM	6487	CD1	TYR	I	27	-118.206	52.655	79.831	1	121.84	C
ATOM	6488	CE1	TYR	I	27	-118.411	53.983	80.183	1	122.8	C
ATOM	6489	CZ	TYR	I	27	-117.457	54.637	80.955	1	128.52	C
ATOM	6490	OH	TYR	I	27	-117.635	55.956	81.316	1	146.98	O
ATOM	6491	CE2	TYR	I	27	-116.321	53.967	81.373	1	115.05	C
ATOM	6492	CD2	TYR	I	27	-116.132	52.643	81.012	1	108.82	C
ATOM	6493	C	TYR	I	27	-117.12	49.782	82.246	1	125.86	C
ATOM	6494	O	TYR	I	27	-117.993	50.027	83.083	1	130.3	O
ATOM	6495	N	THR	I	28	-115.814	49.764	82.518	1	116	N
ATOM	6496	CA	THR	I	28	-115.229	50.107	83.816	1	105.09	C
ATOM	6497	CB	THR	I	28	-113.849	49.441	83.944	1	94.21	C
ATOM	6498	OG1	THR	I	28	-114.035	48.028	84.056	1	87.76	O
ATOM	6499	CG2	THR	I	28	-113.073	49.958	85.147	1	93.02	C
ATOM	6500	C	THR	I	28	-115.049	51.619	83.955	1	116.63	C
ATOM	6501	O	THR	I	28	-114.197	52.193	83.284	1	129.08	O
ATOM	6502	N	PHE	I	29	-115.804	52.247	84.855	1	122.81	N
ATOM	6503	CA	PHE	I	29	-115.85	53.721	84.949	1	112.93	C
ATOM	6504	CB	PHE	I	29	-116.886	54.153	85.971	1	99.21	C
ATOM	6505	CG	PHE	I	29	-117.23	55.602	85.881	1	92.61	C
ATOM	6506	CD1	PHE	I	29	-117.961	56.083	84.802	1	93.06	C
ATOM	6507	CE1	PHE	I	29	-118.288	57.429	84.704	1	89.34	C
ATOM	6508	CZ	PHE	I	29	-117.877	58.308	85.692	1	87.62	C
ATOM	6509	CE2	PHE	I	29	-117.143	57.839	86.771	1	87.58	C

ATOM	6510	CD2	PHE	I	29	-116.816	56.493	86.858	1	90.61	C
ATOM	6511	C	PHE	I	29	-114.523	54.39	85.304	1	119.54	C
ATOM	6512	O	PHE	I	29	-114.165	55.447	84.751	1	111.81	O
ATOM	6513	N	THR	I	30	-113.797	53.738	86.208	1	122.7	N
ATOM	6514	CA	THR	I	30	-112.514	54.219	86.716	1	126.68	C
ATOM	6515	CB	THR	I	30	-112.082	53.349	87.943	1	123.66	C
ATOM	6516	OG1	THR	I	30	-111	53.968	88.641	1	124.99	O
ATOM	6517	CG2	THR	I	30	-111.673	51.918	87.553	1	120.68	C
ATOM	6518	C	THR	I	30	-111.355	54.33	85.681	1	130.93	C
ATOM	6519	O	THR	I	30	-110.252	54.712	86.07	1	145	O
ATOM	6520	N	ASP	I	31	-111.594	54.019	84.394	1	128.12	N
ATOM	6521	CA	ASP	I	31	-110.538	53.952	83.36	1	116.97	C
ATOM	6522	CB	ASP	I	31	-110.253	52.478	82.988	1	117.6	C
ATOM	6523	CG	ASP	I	31	-109.785	51.63	84.161	1	121.66	C
ATOM	6524	OD1	ASP	I	31	-109.076	52.135	85.063	1	123.65	O
ATOM	6525	OD2	ASP	I	31	-110.113	50.425	84.152	1	117.4	O
ATOM	6526	C	ASP	I	31	-110.879	54.684	82.051	1	106.72	C
ATOM	6527	O	ASP	I	31	-110.5	54.217	80.991	1	108.01	O
ATOM	6528	N	TYR	I	32	-111.604	55.798	82.094	1	109.29	N
ATOM	6529	CA	TYR	I	32	-111.923	56.566	80.865	1	106.76	C
ATOM	6530	CB	TYR	I	32	-113.136	55.989	80.111	1	113.52	C
ATOM	6531	CG	TYR	I	32	-112.967	54.703	79.29	1	117.16	C
ATOM	6532	CD1	TYR	I	32	-112.864	53.448	79.91	1	115.04	C
ATOM	6533	CE1	TYR	I	32	-112.752	52.28	79.175	1	111.78	C
ATOM	6534	CZ	TYR	I	32	-112.782	52.338	77.799	1	118.17	C
ATOM	6535	OH	TYR	I	32	-112.687	51.174	77.076	1	123.17	O
ATOM	6536	CE2	TYR	I	32	-112.913	53.558	77.153	1	122.57	C
ATOM	6537	CD2	TYR	I	32	-113.022	54.727	77.896	1	118.95	C
ATOM	6538	C	TYR	I	32	-112.268	58.01	81.219	1	102.27	C
ATOM	6539	O	TYR	I	32	-112.937	58.266	82.22	1	112.15	O
ATOM	6540	N	TYR	I	33	-111.857	58.943	80.368	1	98.47	N
ATOM	6541	CA	TYR	I	33	-112.287	60.332	80.488	1	100.74	C
ATOM	6542	CB	TYR	I	33	-111.488	61.281	79.558	1	107.27	C
ATOM	6543	CG	TYR	I	33	-110.05	61.539	79.962	1	101.03	C
ATOM	6544	CD1	TYR	I	33	-109.054	60.612	79.712	1	99.19	C
ATOM	6545	CE1	TYR	I	33	-107.743	60.845	80.11	1	106.43	C
ATOM	6546	CZ	TYR	I	33	-107.409	62.032	80.745	1	107.7	C
ATOM	6547	OH	TYR	I	33	-106.117	62.304	81.147	1	114.18	O
ATOM	6548	CE2	TYR	I	33	-108.383	62.964	80.998	1	107.31	C
ATOM	6549	CD2	TYR	I	33	-109.691	62.719	80.609	1	105.79	C
ATOM	6550	C	TYR	I	33	-113.752	60.371	80.099	1	99.37	C
ATOM	6551	O	TYR	I	33	-114.311	59.354	79.698	1	95.85	O
ATOM	6552	N	ILE	I	34	-114.37	61.538	80.215	1	106.67	N
ATOM	6553	CA	ILE	I	34	-115.703	61.75	79.657	1	114.7	C

ATOM	6554	CB	ILE	I	34	-116.837	61.316	80.623	1	122.1	C
ATOM	6555	CG1	ILE	I	34	-118.193	61.809	80.11	1	128.97	C
ATOM	6556	CD1	ILE	I	34	-119.371	61.098	80.727	1	132.98	C
ATOM	6557	CG2	ILE	I	34	-116.597	61.798	82.049	1	119.7	C
ATOM	6558	C	ILE	I	34	-115.837	63.189	79.162	1	113.23	C
ATOM	6559	O	ILE	I	34	-116.039	64.12	79.932	1	109.19	O
ATOM	6560	N	ASN	I	35	-115.713	63.359	77.858	1	127.99	N
ATOM	6561	CA	ASN	I	35	-115.565	64.692	77.286	1	152.14	C
ATOM	6562	CB	ASN	I	35	-114.733	64.641	75.984	1	159.33	C
ATOM	6563	CG	ASN	I	35	-113.234	64.411	76.232	1	146.82	C
ATOM	6564	OD1	ASN	I	35	-112.385	65.203	75.806	1	132.24	O
ATOM	6565	ND2	ASN	I	35	-112.91	63.332	76.923	1	142.83	N
ATOM	6566	C	ASN	I	35	-116.955	65.273	77.037	1	150.85	C
ATOM	6567	O	ASN	I	35	-117.852	64.541	76.612	1	178.36	O
ATOM	6568	N	TRP	I	36	-117.143	66.564	77.315	1	134.02	N
ATOM	6569	CA	TRP	I	36	-118.425	67.228	77.044	1	131.81	C
ATOM	6570	CB	TRP	I	36	-118.922	67.962	78.284	1	151.34	C
ATOM	6571	CG	TRP	I	36	-119.563	67.053	79.304	1	160.22	C
ATOM	6572	CD1	TRP	I	36	-118.947	66.422	80.343	1	161.16	C
ATOM	6573	NE1	TRP	I	36	-119.853	65.687	81.064	1	161.29	N
ATOM	6574	CE2	TRP	I	36	-121.088	65.828	80.487	1	169.95	C
ATOM	6575	CD2	TRP	I	36	-120.942	66.686	79.374	1	160.81	C
ATOM	6576	CE3	TRP	I	36	-122.073	67.004	78.608	1	159.42	C
ATOM	6577	CZ3	TRP	I	36	-123.296	66.458	78.964	1	165.63	C
ATOM	6578	CH2	TRP	I	36	-123.412	65.6	80.076	1	176.74	C
ATOM	6579	CZ2	TRP	I	36	-122.322	65.276	80.848	1	183.86	C
ATOM	6580	C	TRP	I	36	-118.301	68.168	75.857	1	112.42	C
ATOM	6581	O	TRP	I	36	-117.226	68.684	75.605	1	114.15	O
ATOM	6582	N	VAL	I	37	-119.403	68.371	75.133	1	101.72	N
ATOM	6583	CA	VAL	I	37	-119.385	69.004	73.801	1	102.42	C
ATOM	6584	CB	VAL	I	37	-119.3	67.917	72.687	1	107.35	C
ATOM	6585	CG1	VAL	I	37	-119.137	68.519	71.286	1	101.9	C
ATOM	6586	CG2	VAL	I	37	-118.178	66.918	72.963	1	110.24	C
ATOM	6587	C	VAL	I	37	-120.664	69.799	73.555	1	99.59	C
ATOM	6588	O	VAL	I	37	-121.738	69.212	73.54	1	110.63	O
ATOM	6589	N	LYS	I	38	-120.56	71.107	73.323	1	94.47	N
ATOM	6590	CA	LYS	I	38	-121.737	71.921	72.962	1	103.06	C
ATOM	6591	CB	LYS	I	38	-121.565	73.393	73.405	1	117.45	C
ATOM	6592	CG	LYS	I	38	-122.019	74.464	72.392	1	126.92	C
ATOM	6593	CD	LYS	I	38	-122.137	75.853	73.023	1	131.52	C
ATOM	6594	CE	LYS	I	38	-121.874	76.971	72.017	1	124.51	C
ATOM	6595	NZ	LYS	I	38	-122.361	78.302	72.491	1	115.72	N
ATOM	6596	C	LYS	I	38	-121.975	71.841	71.458	1	103.38	C
ATOM	6597	O	LYS	I	38	-121.023	71.919	70.685	1	112.93	O

ATOM	6598	N	GLN	I	39	-123.232	71.714	71.041	1	102.52	N
ATOM	6599	CA	GLN	I	39	-123.564	71.798	69.623	1	115.25	C
ATOM	6600	CB	GLN	I	39	-123.802	70.404	69.03	1	122.46	C
ATOM	6601	CG	GLN	I	39	-123.499	70.345	67.527	1	137.55	C
ATOM	6602	CD	GLN	I	39	-124.433	69.461	66.701	1	142.25	C
ATOM	6603	OE1	GLN	I	39	-125.323	68.781	67.228	1	146.23	O
ATOM	6604	NE2	GLN	I	39	-124.229	69.478	65.381	1	134.06	N
ATOM	6605	C	GLN	I	39	-124.765	72.708	69.373	1	126.76	C
ATOM	6606	O	GLN	I	39	-125.913	72.274	69.485	1	138.16	O
ATOM	6607	N	ARG	I	40	-124.493	73.971	69.037	1	134.68	N
ATOM	6608	CA	ARG	I	40	-125.551	74.927	68.656	1	144.66	C
ATOM	6609	CB	ARG	I	40	-124.966	76.333	68.466	1	160.22	C
ATOM	6610	CG	ARG	I	40	-124.826	77.134	69.758	1	170.46	C
ATOM	6611	CD	ARG	I	40	-123.889	78.339	69.623	1	174.04	C
ATOM	6612	NE	ARG	I	40	-124.243	79.266	68.538	1	169.01	N
ATOM	6613	CZ	ARG	I	40	-125.07	80.312	68.637	1	152.4	C
ATOM	6614	NH1	ARG	I	40	-125.677	80.628	69.785	1	150.63	N
ATOM	6615	NH2	ARG	I	40	-125.294	81.061	67.558	1	144.37	N
ATOM	6616	C	ARG	I	40	-126.287	74.46	67.392	1	138.37	C
ATOM	6617	O	ARG	I	40	-125.705	73.744	66.583	1	131.71	O
ATOM	6618	N	PRO	I	41	-127.568	74.855	67.226	1	141.01	N
ATOM	6619	CA	PRO	I	41	-128.417	74.271	66.178	1	140.79	C
ATOM	6620	CB	PRO	I	41	-129.778	74.931	66.411	1	142.76	C
ATOM	6621	CG	PRO	I	41	-129.453	76.223	67.067	1	147.75	C
ATOM	6622	CD	PRO	I	41	-128.273	75.93	67.948	1	145.8	C
ATOM	6623	C	PRO	I	41	-127.916	74.581	64.777	1	141.44	C
ATOM	6624	O	PRO	I	41	-127.723	75.751	64.442	1	136.84	O
ATOM	6625	N	GLY	I	42	-127.684	73.527	63.992	1	148.29	N
ATOM	6626	CA	GLY	I	42	-127.076	73.628	62.662	1	145.16	C
ATOM	6627	C	GLY	I	42	-125.719	74.32	62.604	1	145.37	C
ATOM	6628	O	GLY	I	42	-125.295	74.729	61.529	1	146.08	O
ATOM	6629	N	GLN	I	43	-125.032	74.436	63.745	1	152.65	N
ATOM	6630	CA	GLN	I	43	-123.801	75.218	63.856	1	158.1	C
ATOM	6631	CB	GLN	I	43	-123.765	76.006	65.173	1	173.89	C
ATOM	6632	CG	GLN	I	43	-122.67	77.077	65.22	1	186.37	C
ATOM	6633	CD	GLN	I	43	-122.095	77.322	66.611	1	192.57	C
ATOM	6634	OE1	GLN	I	43	-122.012	78.467	67.063	1	188.12	O
ATOM	6635	NE2	GLN	I	43	-121.691	76.249	67.294	1	196.04	N
ATOM	6636	C	GLN	I	43	-122.583	74.305	63.76	1	149.43	C
ATOM	6637	O	GLN	I	43	-121.731	74.517	62.901	1	155.66	O
ATOM	6638	N	GLY	I	44	-122.501	73.312	64.651	1	140.15	N
ATOM	6639	CA	GLY	I	44	-121.401	72.333	64.66	1	133.62	C
ATOM	6640	C	GLY	I	44	-120.852	72.021	66.042	1	125.13	C
ATOM	6641	O	GLY	I	44	-121.18	72.694	67.019	1	123.54	O

ATOM	6642	N	LEU	I	45	-119.995	71.005	66.109	1	120.81	N
ATOM	6643	CA	LEU	I	45	-119.425	70.535	67.381	1	125.28	C
ATOM	6644	CB	LEU	I	45	-118.753	69.158	67.224	1	147.35	C
ATOM	6645	CG	LEU	I	45	-119.646	67.906	67.195	1	156.73	C
ATOM	6646	CD1	LEU	I	45	-120.201	67.643	65.801	1	151.18	C
ATOM	6647	CD2	LEU	I	45	-118.886	66.679	67.692	1	155.09	C
ATOM	6648	C	LEU	I	45	-118.402	71.506	67.939	1	105.94	C
ATOM	6649	O	LEU	I	45	-117.847	72.308	67.211	1	109.25	O
ATOM	6650	N	GLU	I	46	-118.152	71.4	69.235	1	96.89	N
ATOM	6651	CA	GLU	I	46	-117.141	72.206	69.916	1	102.27	C
ATOM	6652	CB	GLU	I	46	-117.659	73.633	70.083	1	112.8	C
ATOM	6653	CG	GLU	I	46	-116.943	74.471	71.138	1	119.65	C
ATOM	6654	CD	GLU	I	46	-117.557	75.846	71.315	1	131.89	C
ATOM	6655	OE1	GLU	I	46	-118.513	76.212	70.587	1	131.31	O
ATOM	6656	OE2	GLU	I	46	-117.071	76.566	72.204	1	140.97	O
ATOM	6657	C	GLU	I	46	-116.803	71.601	71.282	1	96.03	C
ATOM	6658	O	GLU	I	46	-117.698	71.241	72.042	1	101.08	O
ATOM	6659	N	TRP	I	47	-115.52	71.527	71.614	1	88.63	N
ATOM	6660	CA	TRP	I	47	-115.107	70.865	72.842	1	85.96	C
ATOM	6661	CB	TRP	I	47	-113.603	70.673	72.902	1	86.96	C
ATOM	6662	CG	TRP	I	47	-113.178	69.635	73.89	1	88.65	C
ATOM	6663	CD1	TRP	I	47	-113.704	68.378	74.039	1	91.1	C
ATOM	6664	NE1	TRP	I	47	-113.043	67.695	75.029	1	85.3	N
ATOM	6665	CE2	TRP	I	47	-112.052	68.49	75.529	1	87.29	C
ATOM	6666	CD2	TRP	I	47	-112.105	69.728	74.829	1	87.12	C
ATOM	6667	CE3	TRP	I	47	-111.181	70.726	75.149	1	86.42	C
ATOM	6668	CZ3	TRP	I	47	-110.246	70.469	76.161	1	91.26	C
ATOM	6669	CH2	TRP	I	47	-110.227	69.221	76.842	1	88.03	C
ATOM	6670	CZ2	TRP	I	47	-111.116	68.228	76.535	1	87.91	C
ATOM	6671	C	TRP	I	47	-115.492	71.706	74.004	1	95.56	C
ATOM	6672	O	TRP	I	47	-115.508	72.926	73.888	1	101.43	O
ATOM	6673	N	ILE	I	48	-115.818	71.045	75.116	1	116.93	N
ATOM	6674	CA	ILE	I	48	-116.066	71.714	76.399	1	123.28	C
ATOM	6675	CB	ILE	I	48	-117.455	71.401	77.029	1	128.86	C
ATOM	6676	CG1	ILE	I	48	-118.59	71.744	76.031	1	132.33	C
ATOM	6677	CD1	ILE	I	48	-119.997	71.384	76.477	1	128.64	C
ATOM	6678	CG2	ILE	I	48	-117.572	72.122	78.377	1	128.73	C
ATOM	6679	C	ILE	I	48	-114.95	71.339	77.354	1	109.99	C
ATOM	6680	O	ILE	I	48	-114.05	72.132	77.56	1	113.45	O
ATOM	6681	N	ALA	I	49	-114.993	70.133	77.913	1	102.57	N
ATOM	6682	CA	ALA	I	49	-113.988	69.713	78.889	1	106.45	C
ATOM	6683	CB	ALA	I	49	-114.125	70.529	80.154	1	115.18	C
ATOM	6684	C	ALA	I	49	-114.148	68.249	79.211	1	102.79	C
ATOM	6685	O	ALA	I	49	-115.162	67.637	78.841	1	94.34	O

ATOM	6686	N	ARG	I	50	-113.158	67.709	79.921	1	100.82	N
ATOM	6687	CA	ARG	I	50	-113.145	66.293	80.286	1	114.51	C
ATOM	6688	CB	ARG	I	50	-112.226	65.525	79.342	1	124.13	C
ATOM	6689	CG	ARG	I	50	-110.758	65.889	79.474	1	135.56	C
ATOM	6690	CD	ARG	I	50	-109.876	65.139	78.487	1	136	C
ATOM	6691	NE	ARG	I	50	-108.488	65.061	78.969	1	134.07	N
ATOM	6692	CZ	ARG	I	50	-107.396	65.394	78.284	1	131.49	C
ATOM	6693	NH1	ARG	I	50	-106.211	65.235	78.875	1	127.31	N
ATOM	6694	NH2	ARG	I	50	-107.458	65.897	77.044	1	124.74	N
ATOM	6695	C	ARG	I	50	-112.712	66.07	81.73	1	122.41	C
ATOM	6696	O	ARG	I	50	-112.165	66.974	82.376	1	131.39	O
ATOM	6697	N	ILE	I	51	-112.956	64.853	82.216	1	117.24	N
ATOM	6698	CA	ILE	I	51	-112.658	64.467	83.606	1	119.83	C
ATOM	6699	CB	ILE	I	51	-113.879	64.691	84.561	1	126.92	C
ATOM	6700	CG1	ILE	I	51	-113.69	64.051	85.956	1	130.86	C
ATOM	6701	CD1	ILE	I	51	-112.577	64.64	86.799	1	137.86	C
ATOM	6702	CG2	ILE	I	51	-115.161	64.119	83.978	1	127.26	C
ATOM	6703	C	ILE	I	51	-112.235	63.014	83.639	1	108.6	C
ATOM	6704	O	ILE	I	51	-112.799	62.196	82.909	1	89.68	O
ATOM	6705	N	TYR	I	52	-111.244	62.715	84.486	1	109.11	N
ATOM	6706	CA	TYR	I	52	-110.853	61.336	84.792	1	116.95	C
ATOM	6707	CB	TYR	I	52	-109.333	61.132	84.693	1	114.37	C
ATOM	6708	CG	TYR	I	52	-108.898	59.672	84.824	1	110.12	C
ATOM	6709	CD1	TYR	I	52	-109.417	58.679	83.975	1	108.29	C
ATOM	6710	CE1	TYR	I	52	-109.029	57.348	84.105	1	106.6	C
ATOM	6711	CZ	TYR	I	52	-108.1	56.994	85.092	1	103.86	C
ATOM	6712	OH	TYR	I	52	-107.708	55.685	85.225	1	108.44	O
ATOM	6713	CE2	TYR	I	52	-107.569	57.954	85.938	1	97.67	C
ATOM	6714	CD2	TYR	I	52	-107.968	59.281	85.799	1	104.49	C
ATOM	6715	C	TYR	I	52	-111.335	60.941	86.195	1	119.93	C
ATOM	6716	O	TYR	I	52	-110.894	61.531	87.192	1	110.74	O
ATOM	6717	N	PRO	I	53	-112.24	59.941	86.273	1	124.31	N
ATOM	6718	CA	PRO	I	53	-112.655	59.372	87.56	1	124.38	C
ATOM	6719	CB	PRO	I	53	-113.671	58.288	87.154	1	124.12	C
ATOM	6720	CG	PRO	I	53	-114.188	58.741	85.833	1	120.49	C
ATOM	6721	CD	PRO	I	53	-113.032	59.385	85.156	1	119.29	C
ATOM	6722	C	PRO	I	53	-111.508	58.789	88.403	1	115.55	C
ATOM	6723	O	PRO	I	53	-111.139	59.38	89.414	1	114.91	O
ATOM	6724	N	GLY	I	54	-110.92	57.686	87.946	1	113.18	N
ATOM	6725	CA	GLY	I	54	-110.085	56.811	88.775	1	114.64	C
ATOM	6726	C	GLY	I	54	-109.16	57.426	89.803	1	114.07	C
ATOM	6727	O	GLY	I	54	-109.021	56.893	90.898	1	117.98	O
ATOM	6728	N	ASN	I	55	-108.512	58.527	89.443	1	113.21	N
ATOM	6729	CA	ASN	I	55	-107.736	59.304	90.396	1	114.96	C

ATOM	6730	CB	ASN	I	55	-106.306	59.588	89.881	1	124.63	C
ATOM	6731	CG	ASN	I	55	-106.251	60.553	88.694	1	139.25	C
ATOM	6732	OD1	ASN	I	55	-107.19	61.305	88.418	1	143.78	O
ATOM	6733	ND2	ASN	I	55	-105.123	60.541	87.99	1	147.11	N
ATOM	6734	C	ASN	I	55	-108.487	60.561	90.835	1	115.59	C
ATOM	6735	O	ASN	I	55	-108.425	60.917	92.009	1	128.27	O
ATOM	6736	N	GLY	I	56	-109.196	61.216	89.906	1	114.81	N
ATOM	6737	CA	GLY	I	56	-109.985	62.428	90.202	1	114.67	C
ATOM	6738	C	GLY	I	56	-109.622	63.663	89.391	1	116.65	C
ATOM	6739	O	GLY	I	56	-110.461	64.554	89.225	1	108.64	O
ATOM	6740	N	ASN	I	57	-108.378	63.719	88.899	1	125.84	N
ATOM	6741	CA	ASN	I	57	-107.878	64.817	88.046	1	129.7	C
ATOM	6742	CB	ASN	I	57	-106.509	64.465	87.424	1	135.7	C
ATOM	6743	CG	ASN	I	57	-105.346	64.543	88.406	1	140.81	C
ATOM	6744	OD1	ASN	I	57	-104.366	63.803	88.264	1	137.59	O
ATOM	6745	ND2	ASN	I	57	-105.427	65.449	89.382	1	141.17	N
ATOM	6746	C	ASN	I	57	-108.811	65.157	86.894	1	126.87	C
ATOM	6747	O	ASN	I	57	-109.521	64.293	86.374	1	121.49	O
ATOM	6748	N	THR	I	58	-108.765	66.417	86.477	1	130.39	N
ATOM	6749	CA	THR	I	58	-109.618	66.913	85.398	1	134.31	C
ATOM	6750	CB	THR	I	58	-110.686	67.909	85.926	1	127.65	C
ATOM	6751	OG1	THR	I	58	-110.32	69.258	85.598	1	121.35	O
ATOM	6752	CG2	THR	I	58	-110.887	67.778	87.453	1	123.55	C
ATOM	6753	C	THR	I	58	-108.774	67.59	84.311	1	137.19	C
ATOM	6754	O	THR	I	58	-107.55	67.705	84.429	1	141.64	O
ATOM	6755	N	TYR	I	59	-109.451	68.005	83.246	1	132.68	N
ATOM	6756	CA	TYR	I	59	-108.889	68.912	82.244	1	132.72	C
ATOM	6757	CB	TYR	I	59	-107.987	68.154	81.233	1	138.22	C
ATOM	6758	CG	TYR	I	59	-107.305	69.003	80.138	1	128.99	C
ATOM	6759	CD1	TYR	I	59	-108.054	69.846	79.304	1	129.53	C
ATOM	6760	CE1	TYR	I	59	-107.467	70.607	78.31	1	122.92	C
ATOM	6761	CZ	TYR	I	59	-106.117	70.541	78.108	1	120.8	C
ATOM	6762	OH	TYR	I	59	-105.622	71.339	77.096	1	113.38	O
ATOM	6763	CE2	TYR	I	59	-105.327	69.7	78.903	1	116.34	C
ATOM	6764	CD2	TYR	I	59	-105.924	68.93	79.906	1	113.61	C
ATOM	6765	C	TYR	I	59	-110.072	69.606	81.55	1	134.66	C
ATOM	6766	O	TYR	I	59	-110.997	68.952	81.026	1	114.85	O
ATOM	6767	N	HIS	I	60	-110.028	70.935	81.53	1	132.18	N
ATOM	6768	CA	HIS	I	60	-111.028	71.714	80.804	1	127.58	C
ATOM	6769	CB	HIS	I	60	-111.881	72.621	81.736	1	130.38	C
ATOM	6770	CG	HIS	I	60	-111.463	72.605	83.179	1	131.92	C
ATOM	6771	ND1	HIS	I	60	-110.583	73.523	83.711	1	130.22	N
ATOM	6772	CE1	HIS	I	60	-110.408	73.271	84.996	1	125.19	C
ATOM	6773	NE2	HIS	I	60	-111.144	72.222	85.317	1	122.66	N

ATOM	6774	CD2	HIS	I	60	-111.816	71.788	84.2	1	123.66	C
ATOM	6775	C	HIS	I	60	-110.366	72.518	79.704	1	119.72	C
ATOM	6776	O	HIS	I	60	-109.192	72.857	79.794	1	108.79	O
ATOM	6777	N	ASN	I	61	-111.138	72.779	78.654	1	120.07	N
ATOM	6778	CA	ASN	I	61	-110.834	73.813	77.664	1	120.8	C
ATOM	6779	CB	ASN	I	61	-111.955	73.849	76.621	1	115.6	C
ATOM	6780	CG	ASN	I	61	-111.643	74.711	75.429	1	119.73	C
ATOM	6781	OD1	ASN	I	61	-110.594	75.345	75.347	1	130.13	O
ATOM	6782	ND2	ASN	I	61	-112.565	74.729	74.479	1	121.96	N
ATOM	6783	C	ASN	I	61	-110.761	75.165	78.37	1	133.48	C
ATOM	6784	O	ASN	I	61	-111.477	75.39	79.348	1	163.75	O
ATOM	6785	N	GLU	I	62	-109.936	76.073	77.856	1	139.11	N
ATOM	6786	CA	GLU	I	62	-109.623	77.329	78.563	1	139.12	C
ATOM	6787	CB	GLU	I	62	-108.113	77.665	78.479	1	154	C
ATOM	6788	CG	GLU	I	62	-107.14	76.512	78.173	1	162.44	C
ATOM	6789	CD	GLU	I	62	-107.401	75.215	78.943	1	159.34	C
ATOM	6790	OE1	GLU	I	62	-107.903	75.272	80.09	1	153.14	O
ATOM	6791	OE2	GLU	I	62	-107.107	74.129	78.388	1	143.39	O
ATOM	6792	C	GLU	I	62	-110.469	78.531	78.095	1	126.76	C
ATOM	6793	O	GLU	I	62	-110.254	79.634	78.565	1	123.47	O
ATOM	6794	N	LYS	I	63	-111.4	78.32	77.163	1	125.61	N
ATOM	6795	CA	LYS	I	63	-112.426	79.327	76.806	1	128.76	C
ATOM	6796	CB	LYS	I	63	-112.38	79.701	75.308	1	135.18	C
ATOM	6797	CG	LYS	I	63	-112.245	78.553	74.307	1	144.18	C
ATOM	6798	CD	LYS	I	63	-110.788	78.234	73.955	1	146.42	C
ATOM	6799	CE	LYS	I	63	-110.682	77.155	72.881	1	144.72	C
ATOM	6800	NZ	LYS	I	63	-109.46	76.309	73.019	1	144.01	N
ATOM	6801	C	LYS	I	63	-113.851	78.909	77.255	1	131.02	C
ATOM	6802	O	LYS	I	63	-114.762	79.743	77.305	1	126.64	O
ATOM	6803	N	PHE	I	64	-114.037	77.618	77.554	1	130.62	N
ATOM	6804	CA	PHE	I	64	-115.112	77.125	78.427	1	122.6	C
ATOM	6805	CB	PHE	I	64	-115.771	75.866	77.836	1	119.5	C
ATOM	6806	CG	PHE	I	64	-116.792	76.149	76.749	1	128.72	C
ATOM	6807	CD1	PHE	I	64	-116.646	77.22	75.847	1	138.81	C
ATOM	6808	CE1	PHE	I	64	-117.596	77.463	74.863	1	134.75	C
ATOM	6809	CZ	PHE	I	64	-118.698	76.629	74.743	1	136.56	C
ATOM	6810	CE2	PHE	I	64	-118.853	75.558	75.614	1	131.82	C
ATOM	6811	CD2	PHE	I	64	-117.906	75.324	76.608	1	127.41	C
ATOM	6812	C	PHE	I	64	-114.403	76.865	79.763	1	128.83	C
ATOM	6813	O	PHE	I	64	-114.369	75.753	80.3	1	122.38	O
ATOM	6814	N	LYS	I	65	-113.843	77.953	80.283	1	146.6	N
ATOM	6815	CA	LYS	I	65	-112.776	77.937	81.302	1	159.22	C
ATOM	6816	CB	LYS	I	65	-111.9	79.23	81.268	1	162.08	C
ATOM	6817	CG	LYS	I	65	-112.407	80.496	80.535	1	155.73	C

ATOM	6818	CD	LYS	I	65	-113.438	81.335	81.301	1	153.61	C
ATOM	6819	CE	LYS	I	65	-114.872	81.191	80.8	1	147.47	C
ATOM	6820	NZ	LYS	I	65	-115.788	82.189	81.417	1	144.52	N
ATOM	6821	C	LYS	I	65	-113.281	77.659	82.722	1	161.9	C
ATOM	6822	O	LYS	I	65	-113.673	78.577	83.449	1	172.78	O
ATOM	6823	N	GLY	I	66	-113.274	76.392	83.119	1	156.43	N
ATOM	6824	CA	GLY	I	66	-113.794	76.009	84.427	1	165.29	C
ATOM	6825	C	GLY	I	66	-115.316	76.053	84.511	1	164.73	C
ATOM	6826	O	GLY	I	66	-115.932	75.018	84.762	1	149.06	O
ATOM	6827	N	LYS	I	67	-115.9	77.25	84.325	1	159.87	N
ATOM	6828	CA	LYS	I	67	-117.357	77.51	84.361	1	150.9	C
ATOM	6829	CB	LYS	I	67	-117.819	78.234	83.094	1	145.18	C
ATOM	6830	CG	LYS	I	67	-117.647	79.741	83.126	1	153.04	C
ATOM	6831	CD	LYS	I	67	-118.817	80.459	82.47	1	161.06	C
ATOM	6832	CE	LYS	I	67	-118.99	80.083	81.006	1	173.48	C
ATOM	6833	NZ	LYS	I	67	-120.069	80.884	80.367	1	181.34	N
ATOM	6834	C	LYS	I	67	-118.228	76.287	84.555	1	153.55	C
ATOM	6835	O	LYS	I	67	-118.823	76.117	85.617	1	167.72	O
ATOM	6836	N	ALA	I	68	-118.3	75.447	83.526	1	148.99	N
ATOM	6837	CA	ALA	I	68	-119	74.176	83.625	1	153.81	C
ATOM	6838	CB	ALA	I	68	-119.591	73.776	82.28	1	156.99	C
ATOM	6839	C	ALA	I	68	-118.014	73.136	84.134	1	150.92	C
ATOM	6840	O	ALA	I	68	-117.434	72.384	83.353	1	144.4	O
ATOM	6841	N	THR	I	69	-117.818	73.122	85.456	1	152.88	N
ATOM	6842	CA	THR	I	69	-116.876	72.203	86.124	1	156.21	C
ATOM	6843	CB	THR	I	69	-116.773	72.492	87.647	1	149	C
ATOM	6844	OG1	THR	I	69	-117.056	73.872	87.903	1	148	O
ATOM	6845	CG2	THR	I	69	-115.381	72.147	88.2	1	142.03	C
ATOM	6846	C	THR	I	69	-117.304	70.742	85.925	1	155.72	C
ATOM	6847	O	THR	I	69	-118.384	70.478	85.382	1	148.85	O
ATOM	6848	N	LEU	I	70	-116.452	69.796	86.323	1	143.68	N
ATOM	6849	CA	LEU	I	70	-116.818	68.384	86.291	1	138.11	C
ATOM	6850	CB	LEU	I	70	-116.152	67.665	85.128	1	130.91	C
ATOM	6851	CG	LEU	I	70	-116.468	68.272	83.763	1	127.35	C
ATOM	6852	CD1	LEU	I	70	-115.241	69.007	83.246	1	127.22	C
ATOM	6853	CD2	LEU	I	70	-116.927	67.218	82.778	1	125.05	C
ATOM	6854	C	LEU	I	70	-116.468	67.661	87.573	1	145.27	C
ATOM	6855	O	LEU	I	70	-115.492	68.005	88.249	1	147.83	O
ATOM	6856	N	THR	I	71	-117.294	66.666	87.896	1	146.07	N
ATOM	6857	CA	THR	I	71	-116.951	65.626	88.866	1	144.19	C
ATOM	6858	CB	THR	I	71	-117.444	65.985	90.288	1	144.09	C
ATOM	6859	OG1	THR	I	71	-116.627	67.044	90.798	1	151.43	O
ATOM	6860	CG2	THR	I	71	-117.368	64.798	91.273	1	138.6	C
ATOM	6861	C	THR	I	71	-117.518	64.294	88.372	1	141.7	C

ATOM	6862	O	THR	I	71	-118.481	64.258	87.587	1	125.79	O
ATOM	6863	N	ALA	I	72	-116.87	63.213	88.799	1	134.56	N
ATOM	6864	CA	ALA	I	72	-117.312	61.858	88.535	1	126.71	C
ATOM	6865	CB	ALA	I	72	-116.243	61.108	87.749	1	125.28	C
ATOM	6866	C	ALA	I	72	-117.559	61.19	89.874	1	124	C
ATOM	6867	O	ALA	I	72	-116.667	61.176	90.729	1	113.01	O
ATOM	6868	N	GLU	I	73	-118.767	60.662	90.075	1	130.77	N
ATOM	6869	CA	GLU	I	73	-119.009	59.834	91.248	1	143.23	C
ATOM	6870	CB	GLU	I	73	-120.406	60.01	91.851	1	158.08	C
ATOM	6871	CG	GLU	I	73	-120.596	59.253	93.172	1	166.95	C
ATOM	6872	CD	GLU	I	73	-119.437	59.402	94.164	1	164.89	C
ATOM	6873	OE1	GLU	I	73	-119.094	60.547	94.535	1	155.42	O
ATOM	6874	OE2	GLU	I	73	-118.848	58.361	94.548	1	153.13	O
ATOM	6875	C	GLU	I	73	-118.709	58.379	90.922	1	129.92	C
ATOM	6876	O	GLU	I	73	-119.261	57.781	89.977	1	99.42	O
ATOM	6877	N	LYS	I	74	-117.881	57.819	91.798	1	128.06	N
ATOM	6878	CA	LYS	I	74	-117.028	56.696	91.502	1	133.19	C
ATOM	6879	CB	LYS	I	74	-115.838	56.695	92.483	1	145.25	C
ATOM	6880	CG	LYS	I	74	-115.13	58.051	92.599	1	150.65	C
ATOM	6881	CD	LYS	I	74	-113.866	57.987	93.446	1	152.3	C
ATOM	6882	CE	LYS	I	74	-114.15	58.14	94.932	1	146.51	C
ATOM	6883	NZ	LYS	I	74	-112.892	58.019	95.719	1	142.48	N
ATOM	6884	C	LYS	I	74	-117.829	55.399	91.54	1	130.37	C
ATOM	6885	O	LYS	I	74	-118.132	54.838	90.487	1	107.98	O
ATOM	6886	N	SER	I	75	-118.237	54.963	92.733	1	146.79	N
ATOM	6887	CA	SER	I	75	-118.986	53.706	92.879	1	146.28	C
ATOM	6888	CB	SER	I	75	-118.941	53.202	94.328	1	140.11	C
ATOM	6889	OG	SER	I	75	-119.159	51.802	94.378	1	126.18	O
ATOM	6890	C	SER	I	75	-120.44	53.835	92.393	1	145.11	C
ATOM	6891	O	SER	I	75	-121.085	52.825	92.103	1	144.25	O
ATOM	6892	N	SER	I	76	-120.941	55.07	92.304	1	137.17	N
ATOM	6893	CA	SER	I	76	-122.229	55.353	91.664	1	130.93	C
ATOM	6894	CB	SER	I	76	-122.76	56.695	92.153	1	124.66	C
ATOM	6895	OG	SER	I	76	-122.505	56.844	93.538	1	116.65	O
ATOM	6896	C	SER	I	76	-122.177	55.353	90.125	1	136.79	C
ATOM	6897	O	SER	I	76	-123.236	55.392	89.49	1	136.76	O
ATOM	6898	N	SER	I	77	-120.966	55.333	89.543	1	133.94	N
ATOM	6899	CA	SER	I	77	-120.732	55.255	88.08	1	131.67	C
ATOM	6900	CB	SER	I	77	-121.053	53.853	87.541	1	131.75	C
ATOM	6901	OG	SER	I	77	-120.122	52.907	88.043	1	124.22	O
ATOM	6902	C	SER	I	77	-121.458	56.36	87.293	1	133.25	C
ATOM	6903	O	SER	I	77	-121.97	56.163	86.173	1	114	O
ATOM	6904	N	THR	I	78	-121.462	57.533	87.913	1	140.94	N
ATOM	6905	CA	THR	I	78	-122.142	58.701	87.403	1	156.17	C

ATOM	6906	CB	THR	I	78	-123.102	59.292	88.475	1	166.59	C
ATOM	6907	OG1	THR	I	78	-123.5	58.275	89.408	1	160.4	O
ATOM	6908	CG2	THR	I	78	-124.346	59.901	87.826	1	169.46	C
ATOM	6909	C	THR	I	78	-121.049	59.71	87.067	1	149.08	C
ATOM	6910	O	THR	I	78	-120.002	59.731	87.724	1	156	O
ATOM	6911	N	ALA	I	79	-121.29	60.536	86.05	1	129.57	N
ATOM	6912	CA	ALA	I	79	-120.389	61.628	85.699	1	124.48	C
ATOM	6913	CB	ALA	I	79	-119.738	61.338	84.367	1	131.87	C
ATOM	6914	C	ALA	I	79	-121.155	62.947	85.644	1	134.88	C
ATOM	6915	O	ALA	I	79	-122.102	63.076	84.864	1	136.29	O
ATOM	6916	N	TYR	I	80	-120.739	63.916	86.463	1	139.17	N
ATOM	6917	CA	TYR	I	80	-121.46	65.186	86.637	1	149.36	C
ATOM	6918	CB	TYR	I	80	-121.577	65.548	88.134	1	160.17	C
ATOM	6919	CG	TYR	I	80	-122.074	64.441	89.062	1	167.68	C
ATOM	6920	CD1	TYR	I	80	-123.181	63.651	88.726	1	158.43	C
ATOM	6921	CE1	TYR	I	80	-123.633	62.642	89.573	1	157.45	C
ATOM	6922	CZ	TYR	I	80	-122.99	62.413	90.785	1	166.15	C
ATOM	6923	OH	TYR	I	80	-123.454	61.411	91.612	1	155.52	O
ATOM	6924	CE2	TYR	I	80	-121.896	63.191	91.152	1	172.91	C
ATOM	6925	CD2	TYR	I	80	-121.446	64.198	90.298	1	174.07	C
ATOM	6926	C	TYR	I	80	-120.753	66.336	85.924	1	145.65	C
ATOM	6927	O	TYR	I	80	-119.621	66.662	86.281	1	127.22	O
ATOM	6928	N	MET	I	81	-121.411	66.935	84.923	1	155.84	N
ATOM	6929	CA	MET	I	81	-121.012	68.257	84.394	1	174.99	C
ATOM	6930	CB	MET	I	81	-121.22	68.392	82.866	1	170.94	C
ATOM	6931	CG	MET	I	81	-121.21	69.854	82.372	1	164.87	C
ATOM	6932	SD	MET	I	81	-120.48	70.227	80.76	1	143.58	S
ATOM	6933	CE	MET	I	81	-121.855	70.885	79.81	1	139.62	C
ATOM	6934	C	MET	I	81	-121.785	69.37	85.11	1	184.16	C
ATOM	6935	O	MET	I	81	-123.015	69.409	85.063	1	196.09	O
ATOM	6936	N	GLN	I	82	-121.042	70.304	85.702	1	184.12	N
ATOM	6937	CA	GLN	I	82	-121.594	71.443	86.454	1	173.76	C
ATOM	6938	CB	GLN	I	82	-120.615	71.844	87.587	1	172.01	C
ATOM	6939	CG	GLN	I	82	-120.598	70.903	88.797	1	171.5	C
ATOM	6940	CD	GLN	I	82	-120.292	69.442	88.461	1	171.16	C
ATOM	6941	OE1	GLN	I	82	-119.59	69.145	87.505	1	152.66	O
ATOM	6942	NE2	GLN	I	82	-120.824	68.526	89.26	1	178.95	N
ATOM	6943	C	GLN	I	82	-121.894	72.619	85.491	1	155.83	C
ATOM	6944	O	GLN	I	82	-121.868	72.45	84.267	1	147.3	O
ATOM	6945	N	LEU	I	83	-122.23	73.787	86.033	1	143.08	N
ATOM	6946	CA	LEU	I	83	-122.388	75.002	85.222	1	134	C
ATOM	6947	CB	LEU	I	83	-123.628	74.875	84.333	1	125.22	C
ATOM	6948	CG	LEU	I	83	-123.505	75.46	82.93	1	123.64	C
ATOM	6949	CD1	LEU	I	83	-123.844	74.412	81.879	1	122.46	C

ATOM	6950	CD2	LEU	I	83	-124.385	76.694	82.785	1	127.74	C
ATOM	6951	C	LEU	I	83	-122.466	76.26	86.114	1	141.37	C
ATOM	6952	O	LEU	I	83	-122.597	76.147	87.339	1	161.39	O
ATOM	6953	N	SER	I	84	-122.373	77.445	85.504	1	134.17	N
ATOM	6954	CA	SER	I	84	-122.379	78.72	86.252	1	121.43	C
ATOM	6955	CB	SER	I	84	-121.07	78.848	87.075	1	110.12	C
ATOM	6956	OG	SER	I	84	-120.8	80.18	87.485	1	99.54	O
ATOM	6957	C	SER	I	84	-122.589	79.955	85.344	1	116.07	C
ATOM	6958	O	SER	I	84	-121.619	80.562	84.888	1	122.54	O
ATOM	6959	N	SER	I	85	-123.853	80.3	85.088	1	103.32	N
ATOM	6960	CA	SER	I	85	-124.27	81.597	84.498	1	106.79	C
ATOM	6961	CB	SER	I	85	-123.262	82.745	84.714	1	102.81	C
ATOM	6962	OG	SER	I	85	-122.802	82.794	86.05	1	102.61	O
ATOM	6963	C	SER	I	85	-124.616	81.496	83.023	1	117.49	C
ATOM	6964	O	SER	I	85	-123.792	81.801	82.154	1	122.2	O
ATOM	6965	N	LEU	I	86	-125.863	81.115	82.756	1	126.57	N
ATOM	6966	CA	LEU	I	86	-126.37	80.973	81.384	1	131.92	C
ATOM	6967	CB	LEU	I	86	-127.751	80.301	81.377	1	139.37	C
ATOM	6968	CG	LEU	I	86	-127.841	78.774	81.516	1	149.81	C
ATOM	6969	CD1	LEU	I	86	-127.364	78.285	82.875	1	152.48	C
ATOM	6970	CD2	LEU	I	86	-129.269	78.288	81.251	1	151.34	C
ATOM	6971	C	LEU	I	86	-126.442	82.315	80.642	1	128.07	C
ATOM	6972	O	LEU	I	86	-126.333	83.387	81.245	1	133.3	O
ATOM	6973	N	THR	I	87	-126.611	82.233	79.328	1	126.31	N
ATOM	6974	CA	THR	I	87	-126.667	83.406	78.456	1	139.24	C
ATOM	6975	CB	THR	I	87	-125.251	83.854	78.018	1	152.65	C
ATOM	6976	OG1	THR	I	87	-124.515	82.725	77.518	1	153.66	O
ATOM	6977	CG2	THR	I	87	-124.484	84.507	79.174	1	152.9	C
ATOM	6978	C	THR	I	87	-127.472	83.077	77.204	1	140.72	C
ATOM	6979	O	THR	I	87	-127.837	81.928	76.981	1	135.96	O
ATOM	6980	N	SER	I	88	-127.721	84.087	76.375	1	145.27	N
ATOM	6981	CA	SER	I	88	-128.422	83.893	75.099	1	155.32	C
ATOM	6982	CB	SER	I	88	-128.694	85.258	74.444	1	155.52	C
ATOM	6983	OG	SER	I	88	-129.791	85.193	73.551	1	160.11	O
ATOM	6984	C	SER	I	88	-127.684	82.931	74.115	1	162.24	C
ATOM	6985	O	SER	I	88	-128.333	82.278	73.281	1	159.74	O
ATOM	6986	N	GLU	I	89	-126.353	82.818	74.248	1	156.99	N
ATOM	6987	CA	GLU	I	89	-125.509	81.992	73.351	1	150.9	C
ATOM	6988	CB	GLU	I	89	-124.061	82.536	73.292	1	147.14	C
ATOM	6989	CG	GLU	I	89	-123.862	84.057	73.22	1	144.46	C
ATOM	6990	CD	GLU	I	89	-124.386	84.708	71.946	1	136.24	C
ATOM	6991	OE1	GLU	I	89	-125.609	84.657	71.699	1	125.5	O
ATOM	6992	OE2	GLU	I	89	-123.575	85.309	71.204	1	126.33	O
ATOM	6993	C	GLU	I	89	-125.446	80.484	73.719	1	150.79	C

ATOM	6994	O	GLU	I	89	-124.921	79.684	72.929	1	129.82	O
ATOM	6995	N	ASP	I	90	-125.98	80.109	74.895	1	155.28	N
ATOM	6996	CA	ASP	I	90	-125.874	78.736	75.464	1	147.54	C
ATOM	6997	CB	ASP	I	90	-125.841	78.793	77.017	1	137.82	C
ATOM	6998	CG	ASP	I	90	-124.492	79.254	77.584	1	132.58	C
ATOM	6999	OD1	ASP	I	90	-123.85	80.162	77.007	1	120.99	O
ATOM	7000	OD2	ASP	I	90	-124.091	78.717	78.644	1	121.34	O
ATOM	7001	C	ASP	I	90	-126.987	77.749	75.019	1	147.92	C
ATOM	7002	O	ASP	I	90	-127.169	76.693	75.648	1	133.05	O
ATOM	7003	N	SER	I	91	-127.716	78.076	73.946	1	154.03	N
ATOM	7004	CA	SER	I	91	-128.792	77.212	73.438	1	161.03	C
ATOM	7005	CB	SER	I	91	-129.833	78.035	72.665	1	153.78	C
ATOM	7006	OG	SER	I	91	-130.25	79.173	73.395	1	154.23	O
ATOM	7007	C	SER	I	91	-128.207	76.128	72.53	1	169.91	C
ATOM	7008	O	SER	I	91	-127.765	76.42	71.415	1	166.23	O
ATOM	7009	N	ALA	I	92	-128.204	74.88	72.997	1	179.88	N
ATOM	7010	CA	ALA	I	92	-127.581	73.793	72.234	1	184.91	C
ATOM	7011	CB	ALA	I	92	-126.062	73.972	72.244	1	193.1	C
ATOM	7012	C	ALA	I	92	-127.957	72.393	72.728	1	177.94	C
ATOM	7013	O	ALA	I	92	-128.617	72.241	73.756	1	187.09	O
ATOM	7014	N	VAL	I	93	-127.545	71.391	71.95	1	161.13	N
ATOM	7015	CA	VAL	I	93	-127.545	69.987	72.36	1	148.2	C
ATOM	7016	CB	VAL	I	93	-127.764	69.043	71.151	1	146.19	C
ATOM	7017	CG1	VAL	I	93	-127.91	67.595	71.609	1	147	C
ATOM	7018	CG2	VAL	I	93	-128.983	69.472	70.341	1	144.64	C
ATOM	7019	C	VAL	I	93	-126.168	69.723	72.961	1	138.05	C
ATOM	7020	O	VAL	I	93	-125.155	69.977	72.303	1	153.78	O
ATOM	7021	N	TYR	I	94	-126.125	69.225	74.198	1	121.72	N
ATOM	7022	CA	TYR	I	94	-124.854	68.991	74.912	1	124.19	C
ATOM	7023	CB	TYR	I	94	-124.831	69.727	76.27	1	122.05	C
ATOM	7024	CG	TYR	I	94	-124.865	71.25	76.164	1	121.41	C
ATOM	7025	CD1	TYR	I	94	-125.944	71.904	75.547	1	117.44	C
ATOM	7026	CE1	TYR	I	94	-126.001	73.284	75.447	1	110.4	C
ATOM	7027	CZ	TYR	I	94	-124.973	74.041	75.958	1	116.91	C
ATOM	7028	OH	TYR	I	94	-125.059	75.402	75.832	1	113.03	O
ATOM	7029	CE2	TYR	I	94	-123.883	73.433	76.586	1	122.34	C
ATOM	7030	CD2	TYR	I	94	-123.836	72.043	76.692	1	120.99	C
ATOM	7031	C	TYR	I	94	-124.636	67.482	75.1	1	121.1	C
ATOM	7032	O	TYR	I	94	-125.502	66.807	75.659	1	135.42	O
ATOM	7033	N	PHE	I	95	-123.491	66.963	74.64	1	110.3	N
ATOM	7034	CA	PHE	I	95	-123.216	65.513	74.64	1	107.95	C
ATOM	7035	CB	PHE	I	95	-122.79	65.048	73.253	1	103.68	C
ATOM	7036	CG	PHE	I	95	-123.716	65.441	72.139	1	100.49	C
ATOM	7037	CD1	PHE	I	95	-123.665	66.719	71.601	1	101.5	C

ATOM	7038	CE1	PHE	I	95	-124.487	67.071	70.545	1	113.3	C
ATOM	7039	CZ	PHE	I	95	-125.358	66.135	70	1	117.4	C
ATOM	7040	CE2	PHE	I	95	-125.402	64.85	70.511	1	103.32	C
ATOM	7041	CD2	PHE	I	95	-124.579	64.505	71.566	1	98.66	C
ATOM	7042	C	PHE	I	95	-122.096	65.095	75.604	1	111.41	C
ATOM	7043	O	PHE	I	95	-121.258	65.916	75.976	1	105.06	O
ATOM	7044	N	CYS	I	96	-122.085	63.806	75.968	1	114.61	N
ATOM	7045	CA	CYS	I	96	-120.974	63.168	76.704	1	117.1	C
ATOM	7046	CB	CYS	I	96	-121.415	62.727	78.124	1	129.22	C
ATOM	7047	SG	CYS	I	96	-122.923	61.707	78.302	1	141.79	S
ATOM	7048	C	CYS	I	96	-120.375	61.987	75.893	1	110.34	C
ATOM	7049	O	CYS	I	96	-121.079	61.372	75.094	1	106.79	O
ATOM	7050	N	ALA	I	97	-119.083	61.691	76.095	1	103	N
ATOM	7051	CA	ALA	I	97	-118.389	60.587	75.396	1	98.51	C
ATOM	7052	CB	ALA	I	97	-118.121	61.01	73.963	1	98.33	C
ATOM	7053	C	ALA	I	97	-117.074	60.14	76.092	1	98.58	C
ATOM	7054	O	ALA	I	97	-116.523	60.905	76.877	1	99.69	O
ATOM	7055	N	ARG	I	98	-116.558	58.941	75.779	1	98.13	N
ATOM	7056	CA	ARG	I	98	-115.393	58.331	76.519	1	114.35	C
ATOM	7057	CB	ARG	I	98	-115.76	56.885	76.887	1	125.25	C
ATOM	7058	CG	ARG	I	98	-115.754	55.92	75.704	1	137.68	C
ATOM	7059	CD	ARG	I	98	-117.013	55.062	75.588	1	141.12	C
ATOM	7060	NE	ARG	I	98	-116.958	53.795	76.313	1	141.9	N
ATOM	7061	CZ	ARG	I	98	-116.15	52.767	76.037	1	145.43	C
ATOM	7062	NH1	ARG	I	98	-115.254	52.814	75.063	1	140.83	N
ATOM	7063	NH2	ARG	I	98	-116.225	51.67	76.774	1	153.89	N
ATOM	7064	C	ARG	I	98	-113.963	58.39	75.842	1	109.83	C
ATOM	7065	O	ARG	I	98	-113.86	58.737	74.664	1	110.41	O
ATOM	7066	N	GLU	I	99	-112.882	58.07	76.586	1	95.65	N
ATOM	7067	CA	GLU	I	99	-111.474	58.152	76.073	1	95.59	C
ATOM	7068	CB	GLU	I	99	-110.901	59.555	76.321	1	108.41	C
ATOM	7069	CG	GLU	I	99	-111.627	60.759	75.74	1	121.71	C
ATOM	7070	CD	GLU	I	99	-111.336	61.026	74.272	1	133.23	C
ATOM	7071	OE1	GLU	I	99	-110.857	62.15	73.958	1	133.82	O
ATOM	7072	OE2	GLU	I	99	-111.605	60.137	73.432	1	142.24	O
ATOM	7073	C	GLU	I	99	-110.469	57.081	76.638	1	92.46	C
ATOM	7074	O	GLU	I	99	-110.591	55.907	76.298	1	94.52	O
ATOM	7075	N	GLY	I	100	-109.434	57.481	77.402	1	88.1	N
ATOM	7076	CA	GLY	I	100	-108.66	56.567	78.257	1	96.57	C
ATOM	7077	C	GLY	I	100	-107.373	55.986	77.68	1	113.26	C
ATOM	7078	O	GLY	I	100	-107.331	54.785	77.456	1	133.31	O
ATOM	7079	N	LEU	I	101	-106.287	56.755	77.522	1	124.44	N
ATOM	7080	CA	LEU	I	101	-106.024	57.982	78.274	1	131.22	C
ATOM	7081	CB	LEU	I	101	-105.27	57.568	79.563	1	128.17	C

ATOM	7082	CG	LEU	I	101	-106.109	57.39	80.849	1	120.14	C
ATOM	7083	CD1	LEU	I	101	-105.827	56.066	81.546	1	116.12	C
ATOM	7084	CD2	LEU	I	101	-105.927	58.55	81.828	1	120.13	C
ATOM	7085	C	LEU	I	101	-105.283	59.128	77.511	1	139.06	C
ATOM	7086	O	LEU	I	101	-104.553	59.904	78.145	1	131.16	O
ATOM	7087	N	TYR	I	102	-105.51	59.236	76.186	1	149.17	N
ATOM	7088	CA	TYR	I	102	-104.956	60.304	75.248	1	167.02	C
ATOM	7089	CB	TYR	I	102	-104.352	61.482	76.026	1	188.06	C
ATOM	7090	CG	TYR	I	102	-103.891	62.664	75.221	1	208.1	C
ATOM	7091	CD1	TYR	I	102	-104.79	63.462	74.525	1	212.78	C
ATOM	7092	CE1	TYR	I	102	-104.353	64.559	73.81	1	226.47	C
ATOM	7093	CZ	TYR	I	102	-103.005	64.864	73.806	1	234.67	C
ATOM	7094	OH	TYR	I	102	-102.524	65.931	73.137	1	232.55	O
ATOM	7095	CE2	TYR	I	102	-102.1	64.102	74.49	1	229.03	C
ATOM	7096	CD2	TYR	I	102	-102.544	63.007	75.188	1	220.25	C
ATOM	7097	C	TYR	I	102	-104.007	59.824	74.082	1	152.91	C
ATOM	7098	O	TYR	I	102	-103.472	60.659	73.317	1	106.91	O
ATOM	7099	N	TYR	I	103	-103.898	58.49	73.932	1	147.95	N
ATOM	7100	CA	TYR	I	103	-103.062	57.76	72.956	1	145.22	C
ATOM	7101	CB	TYR	I	103	-101.899	58.619	72.391	1	172.69	C
ATOM	7102	CG	TYR	I	103	-100.743	57.902	71.648	1	200.02	C
ATOM	7103	CD1	TYR	I	103	-100.94	56.709	70.94	1	208.51	C
ATOM	7104	CE1	TYR	I	103	-99.911	56.079	70.251	1	203.86	C
ATOM	7105	CZ	TYR	I	103	-98.657	56.639	70.244	1	202.58	C
ATOM	7106	OH	TYR	I	103	-97.666	55.986	69.55	1	204.59	O
ATOM	7107	CE2	TYR	I	103	-98.419	57.828	70.928	1	200.93	C
ATOM	7108	CD2	TYR	I	103	-99.455	58.451	71.621	1	195.97	C
ATOM	7109	C	TYR	I	103	-102.46	56.59	73.711	1	128.98	C
ATOM	7110	O	TYR	I	103	-101.83	56.862	74.701	1	126.58	O
ATOM	7111	N	ASP	I	104	-102.603	55.313	73.347	1	117.89	N
ATOM	7112	CA	ASP	I	104	-103.668	54.661	72.569	1	124.31	C
ATOM	7113	CB	ASP	I	104	-103.816	55.11	71.095	1	139.66	C
ATOM	7114	CG	ASP	I	104	-105.267	55.033	70.585	1	155.16	C
ATOM	7115	OD1	ASP	I	104	-105.789	53.904	70.44	1	176.02	O
ATOM	7116	OD2	ASP	I	104	-105.882	56.096	70.312	1	143.77	O
ATOM	7117	C	ASP	I	104	-103.334	53.152	72.655	1	115.21	C
ATOM	7118	O	ASP	I	104	-102.192	52.772	72.954	1	94.31	O
ATOM	7119	N	TYR	I	105	-104.313	52.33	72.274	1	117.26	N
ATOM	7120	CA	TYR	I	105	-104.695	51.062	72.927	1	118.7	C
ATOM	7121	CB	TYR	I	105	-103.826	50.736	74.159	1	131.82	C
ATOM	7122	CG	TYR	I	105	-104.074	49.395	74.822	1	136.08	C
ATOM	7123	CD1	TYR	I	105	-104.055	48.211	74.077	1	141.88	C
ATOM	7124	CE1	TYR	I	105	-104.261	46.978	74.685	1	144.9	C
ATOM	7125	CZ	TYR	I	105	-104.471	46.913	76.062	1	139.06	C

ATOM	7126	OH	TYR	I	105	-104.677	45.685	76.657	1	132.85	O
ATOM	7127	CE2	TYR	I	105	-104.476	48.075	76.826	1	130.72	C
ATOM	7128	CD2	TYR	I	105	-104.27	49.302	76.211	1	127.38	C
ATOM	7129	C	TYR	I	105	-106.212	51.185	73.279	1	116.73	C
ATOM	7130	O	TYR	I	105	-106.861	50.187	73.61	1	117.73	O
ATOM	7131	N	ASP	I	106	-106.742	52.42	73.243	1	112.44	N
ATOM	7132	CA	ASP	I	106	-108.165	52.705	72.955	1	109.23	C
ATOM	7133	CB	ASP	I	106	-109.066	52.348	74.13	1	108.88	C
ATOM	7134	CG	ASP	I	106	-110.517	52.61	73.829	1	112.19	C
ATOM	7135	OD1	ASP	I	106	-110.909	53.798	73.758	1	114.54	O
ATOM	7136	OD2	ASP	I	106	-111.26	51.624	73.648	1	115.45	O
ATOM	7137	C	ASP	I	106	-108.422	54.164	72.479	1	110.74	C
ATOM	7138	O	ASP	I	106	-108.582	54.366	71.295	1	120.56	O
ATOM	7139	N	ARG	I	107	-108.498	55.137	73.404	1	108.12	N
ATOM	7140	CA	ARG	I	107	-108.602	56.618	73.153	1	107.24	C
ATOM	7141	CB	ARG	I	107	-107.238	57.294	73.395	1	108.09	C
ATOM	7142	CG	ARG	I	107	-107.2	58.82	73.207	1	123.78	C
ATOM	7143	CD	ARG	I	107	-108.178	59.6	74.087	1	143.47	C
ATOM	7144	NE	ARG	I	107	-108.318	61.039	73.767	1	159.14	N
ATOM	7145	CZ	ARG	I	107	-108.09	62.082	74.588	1	158.46	C
ATOM	7146	NH1	ARG	I	107	-107.659	61.93	75.847	1	154.66	N
ATOM	7147	NH2	ARG	I	107	-108.302	63.321	74.13	1	155.92	N
ATOM	7148	C	ARG	I	107	-109.24	57.216	71.867	1	105.55	C
ATOM	7149	O	ARG	I	107	-108.56	57.78	70.993	1	101.78	O
ATOM	7150	N	TYR	I	108	-110.558	57.126	71.791	1	101.46	N
ATOM	7151	CA	TYR	I	108	-111.345	57.993	70.907	1	110.2	C
ATOM	7152	CB	TYR	I	108	-111.262	57.565	69.434	1	108.15	C
ATOM	7153	CG	TYR	I	108	-110.95	56.102	69.218	1	103.39	C
ATOM	7154	CD1	TYR	I	108	-111.911	55.123	69.418	1	100.97	C
ATOM	7155	CE1	TYR	I	108	-111.619	53.782	69.228	1	99.76	C
ATOM	7156	CZ	TYR	I	108	-110.357	53.409	68.831	1	102.97	C
ATOM	7157	OH	TYR	I	108	-110.051	52.088	68.642	1	113.07	O
ATOM	7158	CE2	TYR	I	108	-109.387	54.364	68.611	1	107.84	C
ATOM	7159	CD2	TYR	I	108	-109.685	55.7	68.807	1	108.2	C
ATOM	7160	C	TYR	I	108	-112.776	57.962	71.409	1	124.1	C
ATOM	7161	O	TYR	I	108	-113.091	57.175	72.312	1	139.39	O
ATOM	7162	N	PHE	I	109	-113.649	58.786	70.831	1	119.15	N
ATOM	7163	CA	PHE	I	109	-115.032	58.867	71.305	1	112.72	C
ATOM	7164	CB	PHE	I	109	-115.649	60.207	70.908	1	109.07	C
ATOM	7165	CG	PHE	I	109	-114.984	61.412	71.525	1	109.86	C
ATOM	7166	CD1	PHE	I	109	-114.521	61.397	72.84	1	104	C
ATOM	7167	CE1	PHE	I	109	-113.953	62.523	73.407	1	102.86	C
ATOM	7168	CZ	PHE	I	109	-113.839	63.692	72.677	1	102.98	C
ATOM	7169	CE2	PHE	I	109	-114.312	63.732	71.377	1	109.32	C

ATOM	7170	CD2	PHE	I	109	-114.889	62.603	70.808	1	112.19	C
ATOM	7171	C	PHE	I	109	-115.949	57.713	70.862	1	112.32	C
ATOM	7172	O	PHE	I	109	-116.997	57.948	70.256	1	113.58	O
ATOM	7173	N	ASP	I	110	-115.549	56.479	71.183	1	105.55	N
ATOM	7174	CA	ASP	I	110	-116.361	55.274	71.014	1	108.59	C
ATOM	7175	CB	ASP	I	110	-116.1	54.346	72.193	1	117.74	C
ATOM	7176	CG	ASP	I	110	-114.894	53.499	72.025	1	128.06	C
ATOM	7177	OD1	ASP	I	110	-114.846	52.722	71.043	1	146.52	O
ATOM	7178	OD2	ASP	I	110	-114.024	53.581	72.926	1	123.69	O
ATOM	7179	C	ASP	I	110	-117.859	55.524	71.017	1	113.53	C
ATOM	7180	O	ASP	I	110	-118.526	55.349	69.995	1	106.1	O
ATOM	7181	N	TYR	I	111	-118.351	55.963	72.186	1	118.99	N
ATOM	7182	CA	TYR	I	111	-119.771	55.956	72.537	1	113.1	C
ATOM	7183	CB	TYR	I	111	-120.057	54.833	73.534	1	108.54	C
ATOM	7184	CG	TYR	I	111	-119.858	53.459	72.945	1	103.17	C
ATOM	7185	CD1	TYR	I	111	-120.634	53.029	71.86	1	99.22	C
ATOM	7186	CE1	TYR	I	111	-120.464	51.771	71.31	1	97.64	C
ATOM	7187	CZ	TYR	I	111	-119.514	50.919	71.841	1	98.38	C
ATOM	7188	OH	TYR	I	111	-119.338	49.673	71.288	1	100.29	O
ATOM	7189	CE2	TYR	I	111	-118.736	51.318	72.918	1	100.94	C
ATOM	7190	CD2	TYR	I	111	-118.913	52.581	73.468	1	97.91	C
ATOM	7191	C	TYR	I	111	-120.21	57.284	73.137	1	111.95	C
ATOM	7192	O	TYR	I	111	-119.478	57.892	73.916	1	111.51	O
ATOM	7193	N	TRP	I	112	-121.437	57.677	72.796	1	116.37	N
ATOM	7194	CA	TRP	I	112	-121.968	59.015	73.037	1	124.48	C
ATOM	7195	CB	TRP	I	112	-122.074	59.76	71.705	1	130.66	C
ATOM	7196	CG	TRP	I	112	-120.777	60.009	71.002	1	130.75	C
ATOM	7197	CD1	TRP	I	112	-120.007	59.096	70.344	1	128.17	C
ATOM	7198	NE1	TRP	I	112	-118.903	59.708	69.81	1	128.01	N
ATOM	7199	CE2	TRP	I	112	-118.945	61.044	70.112	1	131.32	C
ATOM	7200	CD2	TRP	I	112	-120.116	61.271	70.856	1	131.37	C
ATOM	7201	CE3	TRP	I	112	-120.399	62.576	71.289	1	127.59	C
ATOM	7202	CZ3	TRP	I	112	-119.516	63.598	70.967	1	119.83	C
ATOM	7203	CH2	TRP	I	112	-118.359	63.341	70.227	1	127.03	C
ATOM	7204	CZ2	TRP	I	112	-118.055	62.076	69.788	1	131.06	C
ATOM	7205	C	TRP	I	112	-123.373	58.98	73.648	1	129.99	C
ATOM	7206	O	TRP	I	112	-124.209	58.177	73.238	1	131.04	O
ATOM	7207	N	GLY	I	113	-123.643	59.872	74.597	1	138.73	N
ATOM	7208	CA	GLY	I	113	-125.006	60.07	75.094	1	148.63	C
ATOM	7209	C	GLY	I	113	-125.893	60.763	74.06	1	155.85	C
ATOM	7210	O	GLY	I	113	-125.423	61.641	73.337	1	167.41	O
ATOM	7211	N	GLN	I	114	-127.166	60.357	73.987	1	153.81	N
ATOM	7212	CA	GLN	I	114	-128.184	60.976	73.081	1	142.8	C
ATOM	7213	CB	GLN	I	114	-129.576	60.28	73.164	1	141.38	C

ATOM	7214	CG	GLN	I	114	-130.071	59.764	74.519	1	141.39	C
ATOM	7215	CD	GLN	I	114	-129.609	60.587	75.71	1	146.74	C
ATOM	7216	OE1	GLN	I	114	-129.809	61.8	75.763	1	160.03	O
ATOM	7217	NE2	GLN	I	114	-128.969	59.921	76.669	1	138.15	N
ATOM	7218	C	GLN	I	114	-128.368	62.507	73.128	1	133.24	C
ATOM	7219	O	GLN	I	114	-128.892	63.077	72.171	1	140.78	O
ATOM	7220	N	GLY	I	115	-127.978	63.162	74.219	1	117.61	N
ATOM	7221	CA	GLY	I	115	-127.889	64.623	74.238	1	125.44	C
ATOM	7222	C	GLY	I	115	-128.472	65.274	75.474	1	144.3	C
ATOM	7223	O	GLY	I	115	-127.845	65.281	76.538	1	135.74	O
ATOM	7224	N	THR	I	116	-129.7	65.774	75.311	1	159.55	N
ATOM	7225	CA	THR	I	116	-130.382	66.779	76.167	1	159.14	C
ATOM	7226	CB	THR	I	116	-129.66	67.173	77.503	1	153.73	C
ATOM	7227	OG1	THR	I	116	-130.568	67.911	78.325	1	164.22	O
ATOM	7228	CG2	THR	I	116	-128.406	68.036	77.287	1	142.62	C
ATOM	7229	C	THR	I	116	-130.634	67.998	75.264	1	154.27	C
ATOM	7230	O	THR	I	116	-130.446	67.907	74.049	1	138.63	O
ATOM	7231	N	ALA	I	117	-131.08	69.112	75.843	1	157.95	N
ATOM	7232	CA	ALA	I	117	-131.236	70.366	75.097	1	162.01	C
ATOM	7233	CB	ALA	I	117	-132.402	70.263	74.117	1	161.31	C
ATOM	7234	C	ALA	I	117	-131.432	71.558	76.039	1	163.3	C
ATOM	7235	O	ALA	I	117	-132.552	72.048	76.202	1	173.1	O
ATOM	7236	N	LEU	I	118	-130.343	72.018	76.656	1	161.54	N
ATOM	7237	CA	LEU	I	118	-130.407	73.124	77.617	1	165.79	C
ATOM	7238	CB	LEU	I	118	-129.139	73.187	78.474	1	167.14	C
ATOM	7239	CG	LEU	I	118	-129.024	74.339	79.488	1	177.98	C
ATOM	7240	CD1	LEU	I	118	-130.264	74.489	80.361	1	180.92	C
ATOM	7241	CD2	LEU	I	118	-127.799	74.133	80.367	1	187.72	C
ATOM	7242	C	LEU	I	118	-130.634	74.475	76.933	1	176.57	C
ATOM	7243	O	LEU	I	118	-129.734	74.996	76.26	1	176.2	O
ATOM	7244	N	THR	I	119	-131.839	75.026	77.124	1	181.68	N
ATOM	7245	CA	THR	I	119	-132.198	76.372	76.659	1	163.26	C
ATOM	7246	CB	THR	I	119	-133.707	76.513	76.305	1	147.18	C
ATOM	7247	OG1	THR	I	119	-134.296	75.229	76.06	1	141.59	O
ATOM	7248	CG2	THR	I	119	-133.913	77.423	75.084	1	138.03	C
ATOM	7249	C	THR	I	119	-131.904	77.385	77.756	1	163.03	C
ATOM	7250	O	THR	I	119	-131.689	77.029	78.922	1	149.86	O
ATOM	7251	N	VAL	I	120	-131.898	78.652	77.361	1	171.11	N
ATOM	7252	CA	VAL	I	120	-131.775	79.763	78.291	1	184.91	C
ATOM	7253	CB	VAL	I	120	-130.465	80.541	78.062	1	190.4	C
ATOM	7254	CG1	VAL	I	120	-130.244	81.548	79.188	1	190.9	C
ATOM	7255	CG2	VAL	I	120	-129.286	79.574	77.924	1	191.66	C
ATOM	7256	C	VAL	I	120	-132.999	80.661	78.104	1	187.84	C
ATOM	7257	O	VAL	I	120	-133.15	81.33	77.076	1	188.08	O

ATOM	7258	N	SER	I	121	-133.879	80.639	79.101	1	178.14	N
ATOM	7259	CA	SER	I	121	-135.134	81.381	79.072	1	163.86	C
ATOM	7260	CB	SER	I	121	-136.078	80.762	78.033	1	154.91	C
ATOM	7261	OG	SER	I	121	-137.39	81.275	78.136	1	149.27	O
ATOM	7262	C	SER	I	121	-135.75	81.304	80.464	1	168.78	C
ATOM	7263	O	SER	I	121	-135.355	80.448	81.258	1	167.88	O
ATOM	7264	N	SER	I	122	-136.699	82.196	80.756	1	171.51	N
ATOM	7265	CA	SER	I	122	-137.494	82.141	82.003	1	166.15	C
ATOM	7266	CB	SER	I	122	-137.044	83.248	82.967	1	166.05	C
ATOM	7267	OG	SER	I	122	-137.322	82.904	84.316	1	159.77	O
ATOM	7268	C	SER	I	122	-139.002	82.255	81.719	1	159.12	C
ATOM	7269	O	SER	I	122	-139.773	82.675	82.59	1	144.81	O
ATOM	7270	N	ALA	I	123	-139.406	81.822	80.519	1	163.13	N
ATOM	7271	CA	ALA	I	123	-140.729	82.113	79.937	1	164.13	C
ATOM	7272	CB	ALA	I	123	-140.598	82.252	78.417	1	162.6	C
ATOM	7273	C	ALA	I	123	-141.794	81.062	80.297	1	161.26	C
ATOM	7274	O	ALA	I	123	-141.614	80.278	81.239	1	159.04	O
ATOM	7275	N	SER	I	124	-142.909	81.076	79.562	1	155.63	N
ATOM	7276	CA	SER	I	124	-143.97	80.077	79.704	1	164.16	C
ATOM	7277	CB	SER	I	124	-145.065	80.331	78.661	1	164.82	C
ATOM	7278	OG	SER	I	124	-145.573	81.648	78.77	1	162.35	O
ATOM	7279	C	SER	I	124	-143.459	78.633	79.558	1	170.98	C
ATOM	7280	O	SER	I	124	-143.009	78.24	78.47	1	168.71	O
ATOM	7281	N	THR	I	125	-143.547	77.858	80.649	1	166.12	N
ATOM	7282	CA	THR	I	125	-143.153	76.429	80.687	1	153.96	C
ATOM	7283	CB	THR	I	125	-142.716	76.014	82.128	1	135.81	C
ATOM	7284	OG1	THR	I	125	-142.128	77.135	82.807	1	116.93	O
ATOM	7285	CG2	THR	I	125	-141.719	74.851	82.097	1	123.66	C
ATOM	7286	C	THR	I	125	-144.31	75.538	80.143	1	156.58	C
ATOM	7287	O	THR	I	125	-144.739	74.574	80.778	1	155.95	O
ATOM	7288	N	LYS	I	126	-144.737	75.846	78.917	1	162.95	N
ATOM	7289	CA	LYS	I	126	-146.037	75.443	78.326	1	163.38	C
ATOM	7290	CB	LYS	I	126	-146.254	76.291	77.048	1	162.46	C
ATOM	7291	CG	LYS	I	126	-147.668	76.476	76.511	1	152.08	C
ATOM	7292	CD	LYS	I	126	-147.608	77.115	75.129	1	147.61	C
ATOM	7293	CE	LYS	I	126	-148.983	77.305	74.518	1	150.45	C
ATOM	7294	NZ	LYS	I	126	-149.646	76.011	74.195	1	159.38	N
ATOM	7295	C	LYS	I	126	-146.1	73.943	77.978	1	165.31	C
ATOM	7296	O	LYS	I	126	-145.105	73.229	78.107	1	180.53	O
ATOM	7297	N	GLY	I	127	-147.283	73.47	77.581	1	160.88	N
ATOM	7298	CA	GLY	I	127	-147.45	72.171	76.917	1	156.25	C
ATOM	7299	C	GLY	I	127	-147.95	72.337	75.484	1	156.26	C
ATOM	7300	O	GLY	I	127	-148.063	73.466	75	1	147.2	O
ATOM	7301	N	PRO	I	128	-148.247	71.215	74.79	1	161.4	N

ATOM	7302	CA	PRO	I	128	-148.712	71.242	73.391	1	158.97	C
ATOM	7303	CB	PRO	I	128	-147.924	70.083	72.743	1	169.08	C
ATOM	7304	CG	PRO	I	128	-147.249	69.349	73.872	1	173.13	C
ATOM	7305	CD	PRO	I	128	-147.84	69.849	75.156	1	167.11	C
ATOM	7306	C	PRO	I	128	-150.212	71.027	73.142	1	149.16	C
ATOM	7307	O	PRO	I	128	-150.915	70.461	73.976	1	131.77	O
ATOM	7308	N	SER	I	129	-150.659	71.478	71.969	1	156.82	N
ATOM	7309	CA	SER	I	129	-151.975	71.141	71.385	1	153.32	C
ATOM	7310	CB	SER	I	129	-152.638	72.389	70.767	1	140.38	C
ATOM	7311	OG	SER	I	129	-153.876	72.711	71.38	1	116.63	O
ATOM	7312	C	SER	I	129	-151.767	70.063	70.311	1	154.82	C
ATOM	7313	O	SER	I	129	-150.738	70.059	69.634	1	168.16	O
ATOM	7314	N	VAL	I	130	-152.742	69.165	70.157	1	146.26	N
ATOM	7315	CA	VAL	I	130	-152.58	67.937	69.361	1	146.38	C
ATOM	7316	CB	VAL	I	130	-152.329	66.701	70.281	1	154.18	C
ATOM	7317	CG1	VAL	I	130	-151.591	65.602	69.523	1	158.37	C
ATOM	7318	CG2	VAL	I	130	-151.549	67.075	71.543	1	149.54	C
ATOM	7319	C	VAL	I	130	-153.833	67.689	68.502	1	141.43	C
ATOM	7320	O	VAL	I	130	-154.919	67.498	69.051	1	147.6	O
ATOM	7321	N	PHE	I	131	-153.686	67.686	67.171	1	133.97	N
ATOM	7322	CA	PHE	I	131	-154.837	67.649	66.246	1	134.83	C
ATOM	7323	CB	PHE	I	131	-155.084	69.042	65.663	1	138.42	C
ATOM	7324	CG	PHE	I	131	-155.115	70.138	66.69	1	140.1	C
ATOM	7325	CD1	PHE	I	131	-155.982	70.07	67.774	1	148.59	C
ATOM	7326	CE1	PHE	I	131	-156.01	71.078	68.727	1	153.43	C
ATOM	7327	CZ	PHE	I	131	-155.182	72.178	68.593	1	152.83	C
ATOM	7328	CE2	PHE	I	131	-154.317	72.26	67.515	1	151.57	C
ATOM	7329	CD2	PHE	I	131	-154.287	71.246	66.569	1	145.11	C
ATOM	7330	C	PHE	I	131	-154.667	66.669	65.075	1	138.15	C
ATOM	7331	O	PHE	I	131	-153.544	66.457	64.618	1	121.57	O
ATOM	7332	N	PRO	I	132	-155.788	66.106	64.551	1	155.61	N
ATOM	7333	CA	PRO	I	132	-155.695	65.106	63.495	1	156.07	C
ATOM	7334	CB	PRO	I	132	-156.942	64.241	63.742	1	164.9	C
ATOM	7335	CG	PRO	I	132	-157.943	65.171	64.347	1	165.19	C
ATOM	7336	CD	PRO	I	132	-157.207	66.396	64.843	1	165.44	C
ATOM	7337	C	PRO	I	132	-155.727	65.688	62.08	1	143.56	C
ATOM	7338	O	PRO	I	132	-156.757	66.204	61.632	1	141.32	O
ATOM	7339	N	LEU	I	133	-154.599	65.596	61.386	1	139.62	N
ATOM	7340	CA	LEU	I	133	-154.582	65.761	59.929	1	143.33	C
ATOM	7341	CB	LEU	I	133	-153.144	65.947	59.39	1	141.51	C
ATOM	7342	CG	LEU	I	133	-152.672	67.381	59.09	1	137.39	C
ATOM	7343	CD1	LEU	I	133	-153.201	68.418	60.077	1	140.99	C
ATOM	7344	CD2	LEU	I	133	-151.16	67.436	58.991	1	132.62	C
ATOM	7345	C	LEU	I	133	-155.296	64.539	59.334	1	136.63	C

ATOM	7346	O	LEU	I	133	-154.672	63.562	58.917	1	136.81	O
ATOM	7347	N	ALA	I	134	-156.623	64.621	59.323	1	128.1	N
ATOM	7348	CA	ALA	I	134	-157.476	63.502	58.968	1	127.08	C
ATOM	7349	CB	ALA	I	134	-158.835	63.682	59.623	1	131.31	C
ATOM	7350	C	ALA	I	134	-157.626	63.328	57.447	1	131.51	C
ATOM	7351	O	ALA	I	134	-157.883	64.3	56.732	1	126.19	O
ATOM	7352	N	PRO	I	135	-157.481	62.085	56.944	1	144.48	N
ATOM	7353	CA	PRO	I	135	-157.609	61.862	55.5	1	158.06	C
ATOM	7354	CB	PRO	I	135	-156.933	60.501	55.299	1	156.45	C
ATOM	7355	CG	PRO	I	135	-157.157	59.781	56.585	1	153.38	C
ATOM	7356	CD	PRO	I	135	-157.185	60.83	57.666	1	147.91	C
ATOM	7357	C	PRO	I	135	-159.055	61.792	54.994	1	171.62	C
ATOM	7358	O	PRO	I	135	-159.847	60.987	55.493	1	178.42	O
ATOM	7359	N	SER	I	136	-159.39	62.641	54.022	1	175.37	N
ATOM	7360	CA	SER	I	136	-160.464	62.328	53.079	1	168.9	C
ATOM	7361	CB	SER	I	136	-161.07	63.576	52.443	1	161.79	C
ATOM	7362	OG	SER	I	136	-162.013	64.162	53.32	1	159.63	O
ATOM	7363	C	SER	I	136	-159.768	61.448	52.055	1	176.11	C
ATOM	7364	O	SER	I	136	-159.039	61.938	51.189	1	181.55	O
ATOM	7365	N	SER	I	137	-159.986	60.144	52.192	1	182.39	N
ATOM	7366	CA	SER	I	137	-159.082	59.124	51.659	1	183.85	C
ATOM	7367	CB	SER	I	137	-159.385	57.778	52.331	1	175.99	C
ATOM	7368	OG	SER	I	137	-160.767	57.475	52.287	1	158.56	O
ATOM	7369	C	SER	I	137	-159.087	58.985	50.127	1	195.85	C
ATOM	7370	O	SER	I	137	-159.963	58.33	49.553	1	209.51	O
ATOM	7371	N	LYS	I	138	-158.106	59.637	49.495	1	195.19	N
ATOM	7372	CA	LYS	I	138	-157.745	59.438	48.074	1	180.4	C
ATOM	7373	CB	LYS	I	138	-158.891	59.785	47.105	1	160.29	C
ATOM	7374	CG	LYS	I	138	-159.671	61.048	47.437	1	149.93	C
ATOM	7375	CD	LYS	I	138	-161.141	60.94	47.037	1	151.74	C
ATOM	7376	CE	LYS	I	138	-162.067	61.152	48.225	1	153.98	C
ATOM	7377	NZ	LYS	I	138	-161.9	62.49	48.861	1	158.46	N
ATOM	7378	C	LYS	I	138	-156.491	60.247	47.734	1	186.08	C
ATOM	7379	O	LYS	I	138	-156.518	61.481	47.715	1	184.13	O
ATOM	7380	OXT	LYS	I	138	-155.422	59.679	47.489	1	181.75	O
ATOM	7381	N	GLY	I	143	-152.21	54.402	45.09	1	211.5	N
ATOM	7382	CA	GLY	I	143	-151.727	53.546	46.221	1	211.21	C
ATOM	7383	C	GLY	I	143	-151.197	54.321	47.418	1	205.07	C
ATOM	7384	O	GLY	I	143	-150.223	53.897	48.057	1	201.57	O
ATOM	7385	N	THR	I	144	-151.843	55.45	47.726	1	193.68	N
ATOM	7386	CA	THR	I	144	-151.403	56.353	48.794	1	174.19	C
ATOM	7387	CB	THR	I	144	-150.456	57.458	48.266	1	176.02	C
ATOM	7388	OG1	THR	I	144	-149.641	56.948	47.205	1	181.08	O
ATOM	7389	CG2	THR	I	144	-149.554	57.983	49.389	1	180.29	C

ATOM	7390	C	THR	I	144	-152.582	57.043	49.474	1	158.3	C
ATOM	7391	O	THR	I	144	-153.594	57.353	48.839	1	143.21	O
ATOM	7392	N	ALA	I	145	-152.427	57.281	50.773	1	155.65	N
ATOM	7393	CA	ALA	I	145	-153.36	58.089	51.548	1	154.24	C
ATOM	7394	CB	ALA	I	145	-154.583	57.278	51.944	1	162.05	C
ATOM	7395	C	ALA	I	145	-152.634	58.607	52.78	1	140.55	C
ATOM	7396	O	ALA	I	145	-152.3	57.841	53.692	1	130.26	O
ATOM	7397	N	ALA	I	146	-152.384	59.909	52.791	1	134.11	N
ATOM	7398	CA	ALA	I	146	-151.576	60.53	53.833	1	147.58	C
ATOM	7399	CB	ALA	I	146	-150.729	61.64	53.234	1	167.52	C
ATOM	7400	C	ALA	I	146	-152.422	61.063	54.989	1	130.9	C
ATOM	7401	O	ALA	I	146	-153.6	61.385	54.816	1	110.02	O
ATOM	7402	N	LEU	I	147	-151.778	61.181	56.15	1	122.33	N
ATOM	7403	CA	LEU	I	147	-152.451	61.44	57.419	1	127.87	C
ATOM	7404	CB	LEU	I	147	-153.165	60.177	57.907	1	141.42	C
ATOM	7405	CG	LEU	I	147	-152.353	58.881	58.098	1	144.84	C
ATOM	7406	CD1	LEU	I	147	-153.086	57.942	59.047	1	151	C
ATOM	7407	CD2	LEU	I	147	-152.042	58.157	56.791	1	133.9	C
ATOM	7408	C	LEU	I	147	-151.439	61.866	58.456	1	120.07	C
ATOM	7409	O	LEU	I	147	-150.328	61.355	58.456	1	125.71	O
ATOM	7410	N	GLY	I	148	-151.824	62.768	59.353	1	114.66	N
ATOM	7411	CA	GLY	I	148	-150.869	63.383	60.271	1	113.46	C
ATOM	7412	C	GLY	I	148	-151.368	63.614	61.672	1	115.32	C
ATOM	7413	O	GLY	I	148	-152.471	63.197	62.012	1	128.16	O
ATOM	7414	N	CYS	I	149	-150.547	64.3	62.469	1	117.5	N
ATOM	7415	CA	CYS	I	149	-150.785	64.506	63.905	1	127.88	C
ATOM	7416	CB	CYS	I	149	-149.874	63.573	64.713	1	137.72	C
ATOM	7417	SG	CYS	I	149	-150.312	61.825	64.762	1	152.33	S
ATOM	7418	C	CYS	I	149	-150.515	65.949	64.356	1	138.44	C
ATOM	7419	O	CYS	I	149	-150.065	66.163	65.485	1	141.97	O
ATOM	7420	N	LEU	I	150	-150.807	66.93	63.498	1	147.33	N
ATOM	7421	CA	LEU	I	150	-150.474	68.353	63.75	1	154.14	C
ATOM	7422	CB	LEU	I	150	-151.522	69.248	63.068	1	158.44	C
ATOM	7423	CG	LEU	I	150	-151.445	70.78	63.199	1	164.56	C
ATOM	7424	CD1	LEU	I	150	-150.382	71.339	62.266	1	167.04	C
ATOM	7425	CD2	LEU	I	150	-152.792	71.435	62.913	1	168.28	C
ATOM	7426	C	LEU	I	150	-150.341	68.736	65.243	1	156.42	C
ATOM	7427	O	LEU	I	150	-151.347	69.001	65.902	1	178.52	O
ATOM	7428	N	VAL	I	151	-149.109	68.737	65.768	1	150.32	N
ATOM	7429	CA	VAL	I	151	-148.835	69.156	67.16	1	150.26	C
ATOM	7430	CB	VAL	I	151	-147.695	68.331	67.819	1	149.99	C
ATOM	7431	CG1	VAL	I	151	-147.473	68.752	69.277	1	145.76	C
ATOM	7432	CG2	VAL	I	151	-148.003	66.839	67.731	1	144.75	C
ATOM	7433	C	VAL	I	151	-148.525	70.66	67.209	1	143.35	C

ATOM	7434	O	VAL	I	151	-147.365	71.078	67.18	1	143.49	O
ATOM	7435	N	LYS	I	152	-149.583	71.46	67.281	1	132.45	N
ATOM	7436	CA	LYS	I	152	-149.466	72.909	67.294	1	136.04	C
ATOM	7437	CB	LYS	I	152	-150.78	73.543	66.816	1	148.24	C
ATOM	7438	CG	LYS	I	152	-150.679	75.008	66.404	1	162.92	C
ATOM	7439	CD	LYS	I	152	-151.998	75.555	65.871	1	166.6	C
ATOM	7440	CE	LYS	I	152	-151.793	76.815	65.037	1	169.55	C
ATOM	7441	NZ	LYS	I	152	-151.125	77.927	65.77	1	169.64	N
ATOM	7442	C	LYS	I	152	-149.093	73.427	68.692	1	142.81	C
ATOM	7443	O	LYS	I	152	-149.28	72.737	69.697	1	136.33	O
ATOM	7444	N	ASP	I	153	-148.51	74.629	68.701	1	158.38	N
ATOM	7445	CA	ASP	I	153	-148.237	75.479	69.884	1	155.63	C
ATOM	7446	CB	ASP	I	153	-149.421	76.437	70.106	1	157.84	C
ATOM	7447	CG	ASP	I	153	-149.401	77.636	69.141	1	164.14	C
ATOM	7448	OD1	ASP	I	153	-148.888	77.518	68.003	1	173.22	O
ATOM	7449	OD2	ASP	I	153	-149.896	78.711	69.526	1	173.88	O
ATOM	7450	C	ASP	I	153	-147.773	74.85	71.217	1	149.48	C
ATOM	7451	O	ASP	I	153	-148.581	74.436	72.045	1	132.48	O
ATOM	7452	N	TYR	I	154	-146.451	74.802	71.39	1	163.18	N
ATOM	7453	CA	TYR	I	154	-145.804	74.38	72.637	1	176.78	C
ATOM	7454	CB	TYR	I	154	-145.526	72.869	72.623	1	177.66	C
ATOM	7455	CG	TYR	I	154	-144.794	72.365	71.399	1	177.22	C
ATOM	7456	CD1	TYR	I	154	-143.405	72.427	71.327	1	177.38	C
ATOM	7457	CE1	TYR	I	154	-142.725	71.967	70.211	1	174.63	C
ATOM	7458	CZ	TYR	I	154	-143.429	71.439	69.145	1	167.81	C
ATOM	7459	OH	TYR	I	154	-142.738	70.997	68.048	1	144.6	O
ATOM	7460	CE2	TYR	I	154	-144.808	71.348	69.193	1	169.58	C
ATOM	7461	CD2	TYR	I	154	-145.487	71.808	70.317	1	174.23	C
ATOM	7462	C	TYR	I	154	-144.518	75.187	72.891	1	188.73	C
ATOM	7463	O	TYR	I	154	-144.071	75.957	72.035	1	188.03	O
ATOM	7464	N	PHE	I	155	-143.95	75.018	74.083	1	189.43	N
ATOM	7465	CA	PHE	I	155	-142.858	75.863	74.57	1	196.66	C
ATOM	7466	CB	PHE	I	155	-143.438	77.252	74.908	1	198.48	C
ATOM	7467	CG	PHE	I	155	-142.471	78.399	74.756	1	201.26	C
ATOM	7468	CD1	PHE	I	155	-141.275	78.426	75.466	1	201.59	C
ATOM	7469	CE1	PHE	I	155	-140.4	79.497	75.342	1	200.38	C
ATOM	7470	CZ	PHE	I	155	-140.723	80.569	74.522	1	194.55	C
ATOM	7471	CE2	PHE	I	155	-141.918	80.567	73.823	1	191.75	C
ATOM	7472	CD2	PHE	I	155	-142.79	79.493	73.945	1	197.96	C
ATOM	7473	C	PHE	I	155	-142.306	75.192	75.846	1	203.85	C
ATOM	7474	O	PHE	I	155	-143.107	74.881	76.721	1	214.18	O
ATOM	7475	N	PRO	I	156	-140.998	74.928	75.99	1	223.94	N
ATOM	7476	CA	PRO	I	156	-139.962	75.066	74.963	1	230.51	C
ATOM	7477	CB	PRO	I	156	-138.721	75.495	75.782	1	232.24	C

ATOM	7478	CG	PRO	I	156	-139.065	75.293	77.227	1	227.95	C
ATOM	7479	CD	PRO	I	156	-140.399	74.626	77.304	1	226.42	C
ATOM	7480	C	PRO	I	156	-139.736	73.728	74.236	1	224.94	C
ATOM	7481	O	PRO	I	156	-140.637	72.887	74.225	1	223.96	O
ATOM	7482	N	GLU	I	157	-138.572	73.556	73.603	1	214.49	N
ATOM	7483	CA	GLU	I	157	-138.135	72.25	73.077	1	204.21	C
ATOM	7484	CB	GLU	I	157	-136.997	72.444	72.067	1	196.41	C
ATOM	7485	CG	GLU	I	157	-137.415	73.149	70.777	1	191.23	C
ATOM	7486	CD	GLU	I	157	-137.696	72.216	69.603	1	188.44	C
ATOM	7487	OE1	GLU	I	157	-137.801	70.983	69.793	1	184.74	O
ATOM	7488	OE2	GLU	I	157	-137.817	72.729	68.469	1	178.34	O
ATOM	7489	C	GLU	I	157	-137.661	71.341	74.229	1	200.76	C
ATOM	7490	O	GLU	I	157	-137.234	71.87	75.263	1	198.45	O
ATOM	7491	N	PRO	I	158	-137.706	70.004	74.089	1	184.48	N
ATOM	7492	CA	PRO	I	158	-138.128	69.27	72.887	1	169.94	C
ATOM	7493	CB	PRO	I	158	-137.036	68.215	72.761	1	169.72	C
ATOM	7494	CG	PRO	I	158	-136.718	67.874	74.185	1	171.53	C
ATOM	7495	CD	PRO	I	158	-136.904	69.143	74.98	1	170.42	C
ATOM	7496	C	PRO	I	158	-139.478	68.552	73.016	1	172.2	C
ATOM	7497	O	PRO	I	158	-139.967	68.322	74.13	1	165.82	O
ATOM	7498	N	VAL	I	159	-140.041	68.189	71.863	1	180.96	N
ATOM	7499	CA	VAL	I	159	-141.21	67.293	71.766	1	180.39	C
ATOM	7500	CB	VAL	I	159	-142.391	67.938	70.992	1	173.12	C
ATOM	7501	CG1	VAL	I	159	-142.97	69.095	71.79	1	166.75	C
ATOM	7502	CG2	VAL	I	159	-141.977	68.398	69.597	1	169.51	C
ATOM	7503	C	VAL	I	159	-140.769	65.978	71.107	1	171.81	C
ATOM	7504	O	VAL	I	159	-139.62	65.865	70.668	1	183.91	O
ATOM	7505	N	THR	I	160	-141.669	64.998	71.034	1	150.07	N
ATOM	7506	CA	THR	I	160	-141.305	63.661	70.555	1	147.2	C
ATOM	7507	CB	THR	I	160	-140.65	62.836	71.698	1	145.8	C
ATOM	7508	OG1	THR	I	160	-141.112	63.317	72.966	1	137.82	O
ATOM	7509	CG2	THR	I	160	-139.127	62.947	71.672	1	149.65	C
ATOM	7510	C	THR	I	160	-142.498	62.896	69.968	1	143.22	C
ATOM	7511	O	THR	I	160	-143.286	62.312	70.703	1	149.41	O
ATOM	7512	N	VAL	I	161	-142.618	62.904	68.641	1	150.16	N
ATOM	7513	CA	VAL	I	161	-143.665	62.147	67.941	1	162.57	C
ATOM	7514	CB	VAL	I	161	-143.997	62.759	66.552	1	163.48	C
ATOM	7515	CG1	VAL	I	161	-145.078	61.953	65.834	1	161.16	C
ATOM	7516	CG2	VAL	I	161	-144.446	64.207	66.692	1	165.46	C
ATOM	7517	C	VAL	I	161	-143.217	60.693	67.763	1	170.75	C
ATOM	7518	O	VAL	I	161	-142.021	60.419	67.651	1	173.62	O
ATOM	7519	N	SER	I	162	-144.183	59.772	67.751	1	175.36	N
ATOM	7520	CA	SER	I	162	-143.94	58.368	67.402	1	172.59	C
ATOM	7521	CB	SER	I	162	-143.23	57.652	68.553	1	178.49	C

ATOM	7522	OG	SER	I	162	-143.863	57.931	69.79	1	183.53	O
ATOM	7523	C	SER	I	162	-145.264	57.669	67.086	1	168.19	C
ATOM	7524	O	SER	I	162	-146.14	57.611	67.951	1	157.74	O
ATOM	7525	N	TRP	I	163	-145.403	57.147	65.861	1	172.32	N
ATOM	7526	CA	TRP	I	163	-146.652	56.494	65.413	1	174.08	C
ATOM	7527	CB	TRP	I	163	-146.75	56.432	63.875	1	174.76	C
ATOM	7528	CG	TRP	I	163	-147	57.753	63.175	1	182.07	C
ATOM	7529	CD1	TRP	I	163	-146.06	58.671	62.801	1	191.96	C
ATOM	7530	NE1	TRP	I	163	-146.656	59.738	62.17	1	189.21	N
ATOM	7531	CE2	TRP	I	163	-148.007	59.523	62.116	1	185.81	C
ATOM	7532	CD2	TRP	I	163	-148.262	58.275	62.735	1	184.92	C
ATOM	7533	CE3	TRP	I	163	-149.584	57.816	62.81	1	192.85	C
ATOM	7534	CZ3	TRP	I	163	-150.604	58.614	62.267	1	196.1	C
ATOM	7535	CH2	TRP	I	163	-150.314	59.853	61.658	1	186.9	C
ATOM	7536	CZ2	TRP	I	163	-149.026	60.321	61.575	1	185.04	C
ATOM	7537	C	TRP	I	163	-146.796	55.076	65.999	1	165.58	C
ATOM	7538	O	TRP	I	163	-145.97	54.195	65.722	1	148.88	O
ATOM	7539	N	ASN	I	164	-147.854	54.882	66.797	1	155.63	N
ATOM	7540	CA	ASN	I	164	-148.184	53.611	67.463	1	142.84	C
ATOM	7541	CB	ASN	I	164	-148.574	52.531	66.432	1	139.32	C
ATOM	7542	CG	ASN	I	164	-149.801	52.908	65.61	1	131.87	C
ATOM	7543	OD1	ASN	I	164	-150.285	54.038	65.672	1	127.29	O
ATOM	7544	ND2	ASN	I	164	-150.311	51.955	64.832	1	122.3	N
ATOM	7545	C	ASN	I	164	-147.069	53.128	68.392	1	143.6	C
ATOM	7546	O	ASN	I	164	-146.71	51.949	68.386	1	147.2	O
ATOM	7547	N	SER	I	165	-146.54	54.055	69.195	1	142.9	N
ATOM	7548	CA	SER	I	165	-145.385	53.808	70.079	1	143.43	C
ATOM	7549	CB	SER	I	165	-145.803	53.003	71.32	1	142.59	C
ATOM	7550	OG	SER	I	165	-146.634	53.776	72.165	1	138.67	O
ATOM	7551	C	SER	I	165	-144.217	53.137	69.346	1	143.94	C
ATOM	7552	O	SER	I	165	-143.714	52.094	69.766	1	146.56	O
ATOM	7553	N	GLY	I	166	-143.808	53.748	68.237	1	144.91	N
ATOM	7554	CA	GLY	I	166	-142.712	53.243	67.421	1	137.55	C
ATOM	7555	C	GLY	I	166	-142.958	51.847	66.886	1	133.36	C
ATOM	7556	O	GLY	I	166	-142.032	51.042	66.849	1	146.29	O
ATOM	7557	N	ALA	I	167	-144.206	51.552	66.511	1	125.15	N
ATOM	7558	CA	ALA	I	167	-144.557	50.298	65.825	1	131.52	C
ATOM	7559	CB	ALA	I	167	-145.925	49.801	66.27	1	138.49	C
ATOM	7560	C	ALA	I	167	-144.536	50.512	64.315	1	135.94	C
ATOM	7561	O	ALA	I	167	-144.045	49.66	63.563	1	111.03	O
ATOM	7562	N	LEU	I	168	-145.102	51.648	63.896	1	155.88	N
ATOM	7563	CA	LEU	I	168	-145.013	52.166	62.53	1	158.09	C
ATOM	7564	CB	LEU	I	168	-146.41	52.586	62.054	1	154.86	C
ATOM	7565	CG	LEU	I	168	-146.746	52.598	60.558	1	155.36	C

ATOM	7566	CD1	LEU	I	168	-147.979	53.456	60.317	1	153.28	C
ATOM	7567	CD2	LEU	I	168	-145.611	53.088	59.679	1	156.01	C
ATOM	7568	C	LEU	I	168	-144.083	53.392	62.532	1	164.21	C
ATOM	7569	O	LEU	I	168	-144.31	54.342	63.287	1	167.17	O
ATOM	7570	N	THR	I	169	-143.013	53.336	61.738	1	157.14	N
ATOM	7571	CA	THR	I	169	-142.206	54.531	61.411	1	154.6	C
ATOM	7572	CB	THR	I	169	-140.926	54.62	62.264	1	156.65	C
ATOM	7573	OG1	THR	I	169	-140.166	53.414	62.114	1	166.59	O
ATOM	7574	CG2	THR	I	169	-141.264	54.853	63.739	1	153.67	C
ATOM	7575	C	THR	I	169	-141.802	54.647	59.934	1	153.14	C
ATOM	7576	O	THR	I	169	-141.4	55.723	59.495	1	150.69	O
ATOM	7577	N	SER	I	170	-141.88	53.555	59.175	1	148.28	N
ATOM	7578	CA	SER	I	170	-141.638	53.608	57.739	1	142.55	C
ATOM	7579	CB	SER	I	170	-141.388	52.206	57.182	1	140.77	C
ATOM	7580	OG	SER	I	170	-140.706	52.272	55.945	1	142.66	O
ATOM	7581	C	SER	I	170	-142.832	54.282	57.049	1	141.44	C
ATOM	7582	O	SER	I	170	-143.988	54.056	57.412	1	122.93	O
ATOM	7583	N	GLY	I	171	-142.535	55.13	56.066	1	151.88	N
ATOM	7584	CA	GLY	I	171	-143.524	56.036	55.474	1	150.23	C
ATOM	7585	C	GLY	I	171	-143.649	57.398	56.164	1	145.9	C
ATOM	7586	O	GLY	I	171	-144.258	58.303	55.589	1	138.92	O
ATOM	7587	N	VAL	I	172	-143.077	57.55	57.373	1	131.23	N
ATOM	7588	CA	VAL	I	172	-143.154	58.796	58.165	1	122.29	C
ATOM	7589	CB	VAL	I	172	-142.801	58.541	59.66	1	115.08	C
ATOM	7590	CG1	VAL	I	172	-142.707	59.831	60.485	1	109.05	C
ATOM	7591	CG2	VAL	I	172	-143.813	57.593	60.278	1	115.13	C
ATOM	7592	C	VAL	I	172	-142.233	59.884	57.598	1	132.76	C
ATOM	7593	O	VAL	I	172	-141.182	59.596	57.021	1	148.07	O
ATOM	7594	N	HIS	I	173	-142.656	61.133	57.754	1	132.19	N
ATOM	7595	CA	HIS	I	173	-141.819	62.29	57.489	1	136.18	C
ATOM	7596	CB	HIS	I	173	-142.152	62.913	56.129	1	141.53	C
ATOM	7597	CG	HIS	I	173	-141.835	62.048	54.951	1	147.44	C
ATOM	7598	ND1	HIS	I	173	-140.556	61.891	54.46	1	151.87	N
ATOM	7599	CE1	HIS	I	173	-140.587	61.102	53.401	1	154.51	C
ATOM	7600	NE2	HIS	I	173	-141.842	60.756	53.176	1	153.51	N
ATOM	7601	CD2	HIS	I	173	-142.643	61.341	54.127	1	153.67	C
ATOM	7602	C	HIS	I	173	-142.097	63.305	58.592	1	139.69	C
ATOM	7603	O	HIS	I	173	-142.834	64.268	58.382	1	158.97	O
ATOM	7604	N	THR	I	174	-141.537	63.085	59.777	1	133.42	N
ATOM	7605	CA	THR	I	174	-141.704	64.041	60.873	1	123.55	C
ATOM	7606	CB	THR	I	174	-141.296	63.441	62.234	1	106.37	C
ATOM	7607	OG1	THR	I	174	-142.136	62.315	62.518	1	98.21	O
ATOM	7608	CG2	THR	I	174	-141.428	64.47	63.361	1	98.39	C
ATOM	7609	C	THR	I	174	-140.883	65.293	60.548	1	137.7	C

ATOM	7610	O	THR	I	174	-139.779	65.187	60.003	1	142.89	O
ATOM	7611	N	PHE	I	175	-141.453	66.465	60.844	1	146.92	N
ATOM	7612	CA	PHE	I	175	-140.803	67.757	60.601	1	141.69	C
ATOM	7613	CB	PHE	I	175	-141.794	68.764	60.008	1	136.24	C
ATOM	7614	CG	PHE	I	175	-142.167	68.462	58.589	1	144.58	C
ATOM	7615	CD1	PHE	I	175	-141.435	68.999	57.541	1	156.24	C
ATOM	7616	CE1	PHE	I	175	-141.758	68.71	56.22	1	156.01	C
ATOM	7617	CZ	PHE	I	175	-142.821	67.866	55.933	1	157.52	C
ATOM	7618	CE2	PHE	I	175	-143.56	67.317	56.97	1	157.45	C
ATOM	7619	CD2	PHE	I	175	-143.226	67.611	58.292	1	152.49	C
ATOM	7620	C	PHE	I	175	-140.182	68.311	61.885	1	145.5	C
ATOM	7621	O	PHE	I	175	-140.688	68.056	62.991	1	128.22	O
ATOM	7622	N	PRO	I	176	-139.067	69.054	61.745	1	153.63	N
ATOM	7623	CA	PRO	I	176	-138.486	69.746	62.881	1	153.21	C
ATOM	7624	CB	PRO	I	176	-137.04	69.954	62.453	1	158.47	C
ATOM	7625	CG	PRO	I	176	-137.127	70.124	60.97	1	162.73	C
ATOM	7626	CD	PRO	I	176	-138.342	69.371	60.498	1	154.67	C
ATOM	7627	C	PRO	I	176	-139.195	71.069	63.031	1	150.89	C
ATOM	7628	O	PRO	I	176	-139.874	71.518	62.097	1	141.33	O
ATOM	7629	N	ALA	I	177	-139.018	71.698	64.184	1	156.04	N
ATOM	7630	CA	ALA	I	177	-139.858	72.83	64.563	1	174.23	C
ATOM	7631	CB	ALA	I	177	-139.631	73.19	66.021	1	173.62	C
ATOM	7632	C	ALA	I	177	-139.687	74.074	63.685	1	176.59	C
ATOM	7633	O	ALA	I	177	-138.652	74.272	63.048	1	190.31	O
ATOM	7634	N	VAL	I	178	-140.745	74.876	63.642	1	168.71	N
ATOM	7635	CA	VAL	I	178	-140.698	76.248	63.138	1	164.35	C
ATOM	7636	CB	VAL	I	178	-141.348	76.386	61.723	1	163.52	C
ATOM	7637	CG1	VAL	I	178	-140.398	75.896	60.633	1	147.74	C
ATOM	7638	CG2	VAL	I	178	-142.678	75.645	61.631	1	168.13	C
ATOM	7639	C	VAL	I	178	-141.373	77.12	64.223	1	159.86	C
ATOM	7640	O	VAL	I	178	-141.861	76.578	65.22	1	145.12	O
ATOM	7641	N	LEU	I	179	-141.359	78.449	64.051	1	154.33	N
ATOM	7642	CA	LEU	I	179	-142.007	79.417	64.98	1	146.1	C
ATOM	7643	CB	LEU	I	179	-140.953	80.127	65.871	1	134.45	C
ATOM	7644	CG	LEU	I	179	-140.673	79.616	67.305	1	121.57	C
ATOM	7645	CD1	LEU	I	179	-140.142	78.192	67.32	1	114.74	C
ATOM	7646	CD2	LEU	I	179	-139.707	80.529	68.052	1	113.84	C
ATOM	7647	C	LEU	I	179	-142.871	80.456	64.211	1	150.63	C
ATOM	7648	O	LEU	I	179	-142.604	80.761	63.05	1	133.07	O
ATOM	7649	N	GLN	I	180	-143.91	80.976	64.869	1	166.45	N
ATOM	7650	CA	GLN	I	180	-144.864	81.928	64.269	1	168.53	C
ATOM	7651	CB	GLN	I	180	-146.229	81.249	64.075	1	177.31	C
ATOM	7652	CG	GLN	I	180	-146.196	80.001	63.191	1	182.71	C
ATOM	7653	CD	GLN	I	180	-147.265	78.972	63.524	1	186.36	C

ATOM	7654	OE1	GLN	I	180	-148.033	78.562	62.653	1	175.01	O
ATOM	7655	NE2	GLN	I	180	-147.298	78.528	64.783	1	180.28	N
ATOM	7656	C	GLN	I	180	-145.012	83.173	65.158	1	166.37	C
ATOM	7657	O	GLN	I	180	-144.498	83.2	66.278	1	154.19	O
ATOM	7658	N	SER	I	181	-145.722	84.183	64.644	1	168.65	N
ATOM	7659	CA	SER	I	181	-145.938	85.501	65.296	1	170.95	C
ATOM	7660	CB	SER	I	181	-147.435	85.746	65.536	1	166.04	C
ATOM	7661	OG	SER	I	181	-147.948	84.888	66.541	1	162.21	O
ATOM	7662	C	SER	I	181	-145.152	85.797	66.587	1	177.56	C
ATOM	7663	O	SER	I	181	-144.199	86.575	66.567	1	190.75	O
ATOM	7664	N	SER	I	182	-145.554	85.174	67.695	1	182.6	N
ATOM	7665	CA	SER	I	182	-144.896	85.377	68.991	1	184.69	C
ATOM	7666	CB	SER	I	182	-145.818	84.952	70.138	1	186.61	C
ATOM	7667	OG	SER	I	182	-146.132	83.57	70.066	1	186.36	O
ATOM	7668	C	SER	I	182	-143.596	84.585	69.07	1	180.59	C
ATOM	7669	O	SER	I	182	-142.532	85.144	69.346	1	175.9	O
ATOM	7670	N	GLY	I	183	-143.712	83.283	68.811	1	173.55	N
ATOM	7671	CA	GLY	I	183	-142.635	82.313	69.003	1	167.31	C
ATOM	7672	C	GLY	I	183	-143.19	81.108	69.737	1	166.78	C
ATOM	7673	O	GLY	I	183	-142.894	80.896	70.915	1	153.35	O
ATOM	7674	N	LEU	I	184	-144.017	80.338	69.026	1	174.56	N
ATOM	7675	CA	LEU	I	184	-144.69	79.147	69.559	1	181.31	C
ATOM	7676	CB	LEU	I	184	-146.185	79.426	69.731	1	175.59	C
ATOM	7677	CG	LEU	I	184	-146.521	80.308	70.939	1	166.92	C
ATOM	7678	CD1	LEU	I	184	-147.859	81.017	70.778	1	161.45	C
ATOM	7679	CD2	LEU	I	184	-146.498	79.485	72.221	1	170.98	C
ATOM	7680	C	LEU	I	184	-144.472	77.937	68.639	1	187.02	C
ATOM	7681	O	LEU	I	184	-144.992	77.896	67.509	1	168.66	O
ATOM	7682	N	TYR	I	185	-143.72	76.958	69.155	1	197.66	N
ATOM	7683	CA	TYR	I	185	-143.197	75.823	68.372	1	201.48	C
ATOM	7684	CB	TYR	I	185	-142.305	74.926	69.248	1	209.27	C
ATOM	7685	CG	TYR	I	185	-140.962	75.486	69.7	1	215.26	C
ATOM	7686	CD1	TYR	I	185	-139.838	75.415	68.873	1	207.98	C
ATOM	7687	CE1	TYR	I	185	-138.606	75.903	69.285	1	202.15	C
ATOM	7688	CZ	TYR	I	185	-138.475	76.449	70.553	1	198.31	C
ATOM	7689	OH	TYR	I	185	-137.256	76.925	70.968	1	187.71	O
ATOM	7690	CE2	TYR	I	185	-139.565	76.509	71.405	1	205.95	C
ATOM	7691	CD2	TYR	I	185	-140.797	76.022	70.983	1	212.34	C
ATOM	7692	C	TYR	I	185	-144.301	74.955	67.749	1	181.55	C
ATOM	7693	O	TYR	I	185	-144.911	74.148	68.436	1	160.66	O
ATOM	7694	N	SER	I	186	-144.528	75.121	66.446	1	175.28	N
ATOM	7695	CA	SER	I	186	-145.601	74.432	65.724	1	160.51	C
ATOM	7696	CB	SER	I	186	-146.387	75.445	64.883	1	164.65	C
ATOM	7697	OG	SER	I	186	-147.192	74.809	63.903	1	174.91	O

ATOM	7698	C	SER	I	186	-145.043	73.303	64.849	1	149.7	C
ATOM	7699	O	SER	I	186	-144.619	73.537	63.705	1	130.88	O
ATOM	7700	N	LEU	I	187	-145.044	72.087	65.403	1	143.75	N
ATOM	7701	CA	LEU	I	187	-144.623	70.874	64.677	1	135.71	C
ATOM	7702	CB	LEU	I	187	-144.03	69.812	65.629	1	135.9	C
ATOM	7703	CG	LEU	I	187	-143.835	68.351	65.147	1	130.39	C
ATOM	7704	CD1	LEU	I	187	-142.598	67.701	65.748	1	133.33	C
ATOM	7705	CD2	LEU	I	187	-145.055	67.47	65.406	1	123.66	C
ATOM	7706	C	LEU	I	187	-145.779	70.256	63.934	1	119.98	C
ATOM	7707	O	LEU	I	187	-146.93	70.46	64.291	1	119.63	O
ATOM	7708	N	SER	I	188	-145.441	69.484	62.907	1	119.57	N
ATOM	7709	CA	SER	I	188	-146.342	68.508	62.295	1	127.36	C
ATOM	7710	CB	SER	I	188	-146.754	68.984	60.896	1	118.57	C
ATOM	7711	OG	SER	I	188	-147.434	67.97	60.18	1	110.5	O
ATOM	7712	C	SER	I	188	-145.668	67.127	62.211	1	132.37	C
ATOM	7713	O	SER	I	188	-144.454	67.006	62.374	1	150.14	O
ATOM	7714	N	SER	I	189	-146.47	66.093	61.973	1	127.48	N
ATOM	7715	CA	SER	I	189	-145.964	64.75	61.688	1	123.32	C
ATOM	7716	CB	SER	I	189	-145.894	63.915	62.957	1	124.95	C
ATOM	7717	OG	SER	I	189	-145.634	62.555	62.629	1	127.86	O
ATOM	7718	C	SER	I	189	-146.885	64.057	60.719	1	120.38	C
ATOM	7719	O	SER	I	189	-148.075	64.335	60.712	1	119.9	O
ATOM	7720	N	VAL	I	190	-146.337	63.142	59.922	1	123.76	N
ATOM	7721	CA	VAL	I	190	-147.131	62.39	58.945	1	131.17	C
ATOM	7722	CB	VAL	I	190	-147.062	63.014	57.511	1	139.62	C
ATOM	7723	CG1	VAL	I	190	-147.447	64.491	57.525	1	141.24	C
ATOM	7724	CG2	VAL	I	190	-145.687	62.839	56.878	1	141.83	C
ATOM	7725	C	VAL	I	190	-146.727	60.918	58.883	1	128.76	C
ATOM	7726	O	VAL	I	190	-145.825	60.474	59.59	1	129.65	O
ATOM	7727	N	VAL	I	191	-147.473	60.177	58.067	1	128.99	N
ATOM	7728	CA	VAL	I	191	-147.072	58.876	57.514	1	125.36	C
ATOM	7729	CB	VAL	I	191	-147.338	57.697	58.502	1	128.79	C
ATOM	7730	CG1	VAL	I	191	-148.812	57.307	58.545	1	134.12	C
ATOM	7731	CG2	VAL	I	191	-146.484	56.474	58.177	1	127.28	C
ATOM	7732	C	VAL	I	191	-147.879	58.742	56.225	1	117.79	C
ATOM	7733	O	VAL	I	191	-148.741	59.588	55.963	1	106.43	O
ATOM	7734	N	THR	I	192	-147.59	57.727	55.415	1	122.37	N
ATOM	7735	CA	THR	I	192	-148.543	57.288	54.386	1	140.72	C
ATOM	7736	CB	THR	I	192	-147.983	57.403	52.953	1	132.66	C
ATOM	7737	OG1	THR	I	192	-147.193	56.247	52.645	1	125.28	O
ATOM	7738	CG2	THR	I	192	-147.15	58.665	52.79	1	132.39	C
ATOM	7739	C	THR	I	192	-148.981	55.85	54.651	1	157.8	C
ATOM	7740	O	THR	I	192	-148.421	55.163	55.509	1	169.7	O
ATOM	7741	N	VAL	I	193	-150.018	55.425	53.929	1	168.34	N

ATOM	7742	CA	VAL	I	193	-150.53	54.045	53.974	1	168.3	C
ATOM	7743	CB	VAL	I	193	-151.751	53.907	54.928	1	157.42	C
ATOM	7744	CG1	VAL	I	193	-151.528	54.702	56.203	1	148.59	C
ATOM	7745	CG2	VAL	I	193	-153.052	54.362	54.269	1	162.35	C
ATOM	7746	C	VAL	I	193	-150.872	53.63	52.527	1	180.7	C
ATOM	7747	O	VAL	I	193	-150.991	54.501	51.658	1	194.59	O
ATOM	7748	N	PRO	I	194	-151.031	52.316	52.252	1	175.24	N
ATOM	7749	CA	PRO	I	194	-151.403	51.904	50.881	1	177.17	C
ATOM	7750	CB	PRO	I	194	-150.827	50.479	50.779	1	168.89	C
ATOM	7751	CG	PRO	I	194	-150.763	49.978	52.186	1	162.3	C
ATOM	7752	CD	PRO	I	194	-150.701	51.161	53.113	1	163.44	C
ATOM	7753	C	PRO	I	194	-152.932	51.986	50.565	1	186.34	C
ATOM	7754	O	PRO	I	194	-153.569	50.965	50.288	1	205.48	O
ATOM	7755	N	SER	I	195	-153.49	53.203	50.592	1	175.47	N
ATOM	7756	CA	SER	I	195	-154.905	53.492	50.25	1	161.58	C
ATOM	7757	CB	SER	I	195	-155.162	53.253	48.755	1	158.25	C
ATOM	7758	OG	SER	I	195	-154.364	54.113	47.969	1	157.64	O
ATOM	7759	C	SER	I	195	-155.99	52.795	51.099	1	158.54	C
ATOM	7760	O	SER	I	195	-156.531	53.398	52.035	1	154.76	O
ATOM	7761	N	SER	I	196	-156.299	51.539	50.771	1	155.81	N
ATOM	7762	CA	SER	I	196	-157.456	50.822	51.346	1	158.99	C
ATOM	7763	CB	SER	I	196	-158.05	49.842	50.307	1	155.91	C
ATOM	7764	OG	SER	I	196	-157.197	49.67	49.183	1	147.22	O
ATOM	7765	C	SER	I	196	-157.192	50.115	52.698	1	155.02	C
ATOM	7766	O	SER	I	196	-158.109	49.534	53.28	1	153.52	O
ATOM	7767	N	SER	I	197	-155.956	50.184	53.199	1	153.97	N
ATOM	7768	CA	SER	I	197	-155.616	49.719	54.554	1	151.71	C
ATOM	7769	CB	SER	I	197	-154.112	49.846	54.806	1	161.28	C
ATOM	7770	OG	SER	I	197	-153.742	51.206	55.014	1	159.5	O
ATOM	7771	C	SER	I	197	-156.323	50.516	55.641	1	151.41	C
ATOM	7772	O	SER	I	197	-156.404	50.062	56.785	1	143.15	O
ATOM	7773	N	LEU	I	198	-156.768	51.721	55.282	1	151.75	N
ATOM	7774	CA	LEU	I	198	-157.527	52.601	56.167	1	155.96	C
ATOM	7775	CB	LEU	I	198	-157.9	53.892	55.426	1	163.06	C
ATOM	7776	CG	LEU	I	198	-156.762	54.812	54.973	1	165.05	C
ATOM	7777	CD1	LEU	I	198	-157.293	55.857	54.011	1	161.15	C
ATOM	7778	CD2	LEU	I	198	-156.094	55.478	56.165	1	171.87	C
ATOM	7779	C	LEU	I	198	-158.801	51.946	56.706	1	149.73	C
ATOM	7780	O	LEU	I	198	-159.042	51.993	57.913	1	136.52	O
ATOM	7781	N	GLY	I	199	-159.578	51.325	55.806	1	150.42	N
ATOM	7782	CA	GLY	I	199	-160.917	50.747	56.083	1	148.15	C
ATOM	7783	C	GLY	I	199	-161.166	50.027	57.405	1	155.46	C
ATOM	7784	O	GLY	I	199	-162.286	50.05	57.928	1	149.67	O
ATOM	7785	N	THR	I	200	-160.13	49.373	57.927	1	164.92	N

ATOM	7786	CA	THR	I	200	-160.137	48.764	59.263	1	166.17	C
ATOM	7787	CB	THR	I	200	-160.43	47.25	59.181	1	174.67	C
ATOM	7788	OG1	THR	I	200	-159.794	46.696	58.018	1	173.91	O
ATOM	7789	CG2	THR	I	200	-161.928	46.99	59.105	1	177.05	C
ATOM	7790	C	THR	I	200	-158.759	48.976	59.879	1	161.39	C
ATOM	7791	O	THR	I	200	-157.829	48.236	59.55	1	157.43	O
ATOM	7792	N	GLN	I	201	-158.61	49.98	60.748	1	165.38	N
ATOM	7793	CA	GLN	I	201	-157.266	50.387	61.212	1	172.73	C
ATOM	7794	CB	GLN	I	201	-156.526	51.098	60.056	1	168.19	C
ATOM	7795	CG	GLN	I	201	-155.01	51.198	60.169	1	161.17	C
ATOM	7796	CD	GLN	I	201	-154.325	49.887	60.523	1	152.8	C
ATOM	7797	OE1	GLN	I	201	-154.071	49.609	61.697	1	132.74	O
ATOM	7798	NE2	GLN	I	201	-154.032	49.073	59.512	1	152.28	N
ATOM	7799	C	GLN	I	201	-157.24	51.282	62.463	1	170.02	C
ATOM	7800	O	GLN	I	201	-158.251	51.886	62.836	1	169.17	O
ATOM	7801	N	THR	I	202	-156.068	51.33	63.104	1	162.53	N
ATOM	7802	CA	THR	I	202	-155.786	52.215	64.238	1	159.42	C
ATOM	7803	CB	THR	I	202	-156.036	51.457	65.574	1	150.88	C
ATOM	7804	OG1	THR	I	202	-157.447	51.334	65.787	1	148.58	O
ATOM	7805	CG2	THR	I	202	-155.427	52.164	66.784	1	141.38	C
ATOM	7806	C	THR	I	202	-154.344	52.774	64.144	1	159.88	C
ATOM	7807	O	THR	I	202	-153.386	52.091	64.521	1	170.38	O
ATOM	7808	N	TYR	I	203	-154.201	53.995	63.615	1	147.68	N
ATOM	7809	CA	TYR	I	203	-152.936	54.754	63.689	1	139.53	C
ATOM	7810	CB	TYR	I	203	-152.604	55.467	62.365	1	128.05	C
ATOM	7811	CG	TYR	I	203	-152.556	54.598	61.113	1	134.92	C
ATOM	7812	CD1	TYR	I	203	-151.526	53.68	60.904	1	134.88	C
ATOM	7813	CE1	TYR	I	203	-151.478	52.896	59.747	1	135.59	C
ATOM	7814	CZ	TYR	I	203	-152.467	53.035	58.768	1	135.25	C
ATOM	7815	OH	TYR	I	203	-152.439	52.269	57.613	1	120.44	O
ATOM	7816	CE2	TYR	I	203	-153.488	53.955	58.947	1	136.18	C
ATOM	7817	CD2	TYR	I	203	-153.528	54.728	60.107	1	143.67	C
ATOM	7818	C	TYR	I	203	-153.052	55.796	64.815	1	150.87	C
ATOM	7819	O	TYR	I	203	-153.755	56.798	64.662	1	149.3	O
ATOM	7820	N	ILE	I	204	-152.38	55.548	65.943	1	163.17	N
ATOM	7821	CA	ILE	I	204	-152.373	56.454	67.108	1	173.94	C
ATOM	7822	CB	ILE	I	204	-152.958	55.755	68.366	1	179.78	C
ATOM	7823	CG1	ILE	I	204	-154.451	55.469	68.171	1	188.93	C
ATOM	7824	CD1	ILE	I	204	-155.016	54.432	69.124	1	189.55	C
ATOM	7825	CG2	ILE	I	204	-152.735	56.588	69.638	1	172.43	C
ATOM	7826	C	ILE	I	204	-150.946	56.916	67.422	1	182.87	C
ATOM	7827	O	ILE	I	204	-150.087	56.084	67.715	1	182.28	O
ATOM	7828	N	CYS	I	205	-150.706	58.232	67.399	1	187.7	N
ATOM	7829	CA	CYS	I	205	-149.37	58.802	67.679	1	179.51	C

ATOM	7830	CB	CYS	I	205	-149.004	59.865	66.641	1	175.73	C
ATOM	7831	SG	CYS	I	205	-150.011	61.361	66.717	1	177.76	S
ATOM	7832	C	CYS	I	205	-149.265	59.396	69.09	1	165.83	C
ATOM	7833	O	CYS	I	205	-150.159	60.122	69.537	1	141.69	O
ATOM	7834	N	ASN	I	206	-148.144	59.108	69.756	1	166.57	N
ATOM	7835	CA	ASN	I	206	-147.941	59.416	71.178	1	169.05	C
ATOM	7836	CB	ASN	I	206	-147.491	58.163	71.95	1	177.76	C
ATOM	7837	CG	ASN	I	206	-148.068	56.878	71.372	1	193.51	C
ATOM	7838	OD1	ASN	I	206	-147.338	56.045	70.837	1	194.09	O
ATOM	7839	ND2	ASN	I	206	-149.384	56.727	71.451	1	201.4	N
ATOM	7840	C	ASN	I	206	-146.898	60.523	71.314	1	156.58	C
ATOM	7841	O	ASN	I	206	-145.747	60.342	70.91	1	156.55	O
ATOM	7842	N	VAL	I	207	-147.302	61.655	71.891	1	145.1	N
ATOM	7843	CA	VAL	I	207	-146.487	62.875	71.913	1	133.79	C
ATOM	7844	CB	VAL	I	207	-147.365	64.133	71.643	1	136.14	C
ATOM	7845	CG1	VAL	I	207	-146.506	65.342	71.276	1	139.87	C
ATOM	7846	CG2	VAL	I	207	-148.355	63.86	70.508	1	136.22	C
ATOM	7847	C	VAL	I	207	-145.645	62.885	73.217	1	128.95	C
ATOM	7848	O	VAL	I	207	-144.931	61.91	73.451	1	119.51	O
ATOM	7849	N	ASN	I	208	-145.748	63.928	74.055	1	131.85	N
ATOM	7850	CA	ASN	I	208	-144.873	64.207	75.23	1	142.41	C
ATOM	7851	CB	ASN	I	208	-143.778	63.141	75.509	1	145.93	C
ATOM	7852	CG	ASN	I	208	-143.068	63.331	76.864	1	150.41	C
ATOM	7853	OD1	ASN	I	208	-142.413	64.352	77.127	1	141.4	O
ATOM	7854	ND2	ASN	I	208	-143.171	62.32	77.717	1	150.52	N
ATOM	7855	C	ASN	I	208	-144.231	65.581	75.055	1	143.87	C
ATOM	7856	O	ASN	I	208	-144.04	66.048	73.936	1	147.39	O
ATOM	7857	N	HIS	I	209	-143.915	66.218	76.179	1	156.6	N
ATOM	7858	CA	HIS	I	209	-143.198	67.486	76.207	1	167.59	C
ATOM	7859	CB	HIS	I	209	-144.212	68.63	76.12	1	181.76	C
ATOM	7860	CG	HIS	I	209	-143.597	69.98	75.935	1	191.88	C
ATOM	7861	ND1	HIS	I	209	-142.964	70.654	76.955	1	196.84	N
ATOM	7862	CE1	HIS	I	209	-142.531	71.818	76.508	1	199.15	C
ATOM	7863	NE2	HIS	I	209	-142.866	71.927	75.235	1	197.31	N
ATOM	7864	CD2	HIS	I	209	-143.533	70.789	74.852	1	198.15	C
ATOM	7865	C	HIS	I	209	-142.37	67.531	77.497	1	161.07	C
ATOM	7866	O	HIS	I	209	-142.716	68.222	78.454	1	143.61	O
ATOM	7867	N	LYS	I	210	-141.265	66.787	77.477	1	165.26	N
ATOM	7868	CA	LYS	I	210	-140.437	66.443	78.662	1	178.4	C
ATOM	7869	CB	LYS	I	210	-138.987	66.167	78.221	1	183.94	C
ATOM	7870	CG	LYS	I	210	-138.133	65.389	79.221	1	176.36	C
ATOM	7871	CD	LYS	I	210	-136.652	65.566	78.912	1	168.33	C
ATOM	7872	CE	LYS	I	210	-135.791	64.476	79.529	1	159.5	C
ATOM	7873	NZ	LYS	I	210	-134.337	64.688	79.27	1	155.48	N

ATOM	7874	C	LYS	I	210	-140.422	67.377	79.897	1	184.08	C
ATOM	7875	O	LYS	I	210	-140.555	66.885	81.019	1	181.41	O
ATOM	7876	N	PRO	I	211	-140.215	68.702	79.71	1	189.75	N
ATOM	7877	CA	PRO	I	211	-140.239	69.592	80.886	1	194.4	C
ATOM	7878	CB	PRO	I	211	-139.666	70.902	80.337	1	199.2	C
ATOM	7879	CG	PRO	I	211	-140.026	70.878	78.894	1	194.27	C
ATOM	7880	CD	PRO	I	211	-139.826	69.447	78.495	1	190.9	C
ATOM	7881	C	PRO	I	211	-141.633	69.839	81.493	1	199.24	C
ATOM	7882	O	PRO	I	211	-141.73	70.131	82.692	1	195.31	O
ATOM	7883	N	SER	I	212	-142.687	69.717	80.678	1	196.71	N
ATOM	7884	CA	SER	I	212	-144.078	69.955	81.113	1	184.14	C
ATOM	7885	CB	SER	I	212	-144.868	70.683	80.008	1	176.55	C
ATOM	7886	OG	SER	I	212	-145.517	69.788	79.115	1	148.61	O
ATOM	7887	C	SER	I	212	-144.817	68.672	81.517	1	170.98	C
ATOM	7888	O	SER	I	212	-146.051	68.66	81.559	1	158.55	O
ATOM	7889	N	ASN	I	213	-144.072	67.588	81.758	1	159.56	N
ATOM	7890	CA	ASN	I	213	-144.623	66.315	82.235	1	141	C
ATOM	7891	CB	ASN	I	213	-145.216	66.495	83.647	1	141.8	C
ATOM	7892	CG	ASN	I	213	-144.28	67.247	84.594	1	146.63	C
ATOM	7893	OD1	ASN	I	213	-144.409	68.462	84.792	1	144.62	O
ATOM	7894	ND2	ASN	I	213	-143.323	66.528	85.172	1	151.91	N
ATOM	7895	C	ASN	I	213	-145.639	65.639	81.288	1	129.52	C
ATOM	7896	O	ASN	I	213	-146.034	64.504	81.545	1	110.5	O
ATOM	7897	N	THR	I	214	-145.986	66.301	80.172	1	130.45	N
ATOM	7898	CA	THR	I	214	-147.108	65.923	79.293	1	142.32	C
ATOM	7899	CB	THR	I	214	-147.272	66.934	78.11	1	142.03	C
ATOM	7900	OG1	THR	I	214	-147.314	68.28	78.608	1	138.28	O
ATOM	7901	CG2	THR	I	214	-148.546	66.656	77.277	1	126.23	C
ATOM	7902	C	THR	I	214	-146.929	64.514	78.712	1	142.63	C
ATOM	7903	O	THR	I	214	-145.81	64.11	78.403	1	134.65	O
ATOM	7904	N	LYS	I	215	-148.034	63.773	78.603	1	147.31	N
ATOM	7905	CA	LYS	I	215	-148.052	62.42	78.03	1	152.51	C
ATOM	7906	CB	LYS	I	215	-147.802	61.36	79.131	1	151.04	C
ATOM	7907	CG	LYS	I	215	-146.484	61.557	79.879	1	147.51	C
ATOM	7908	CD	LYS	I	215	-146.003	60.383	80.721	1	142.32	C
ATOM	7909	CE	LYS	I	215	-144.746	60.793	81.488	1	136.09	C
ATOM	7910	NZ	LYS	I	215	-144.024	59.654	82.115	1	131.88	N
ATOM	7911	C	LYS	I	215	-149.396	62.201	77.305	1	152.73	C
ATOM	7912	O	LYS	I	215	-150.374	61.759	77.909	1	164.13	O
ATOM	7913	N	VAL	I	216	-149.428	62.525	76.011	1	147.97	N
ATOM	7914	CA	VAL	I	216	-150.674	62.649	75.237	1	152.23	C
ATOM	7915	CB	VAL	I	216	-150.922	64.134	74.85	1	162.58	C
ATOM	7916	CG1	VAL	I	216	-152.106	64.299	73.889	1	159.37	C
ATOM	7917	CG2	VAL	I	216	-151.136	64.99	76.095	1	163.91	C

ATOM	7918	C	VAL	I	216	-150.616	61.803	73.966	1	152.6	C
ATOM	7919	O	VAL	I	216	-149.544	61.616	73.391	1	162.63	O
ATOM	7920	N	ASP	I	217	-151.775	61.284	73.55	1	160.16	N
ATOM	7921	CA	ASP	I	217	-151.94	60.542	72.285	1	157.98	C
ATOM	7922	CB	ASP	I	217	-152.191	59.026	72.541	1	164.49	C
ATOM	7923	CG	ASP	I	217	-151.221	58.384	73.585	1	162.96	C
ATOM	7924	OD1	ASP	I	217	-150.805	59.038	74.565	1	167.88	O
ATOM	7925	OD2	ASP	I	217	-150.909	57.18	73.446	1	137.53	O
ATOM	7926	C	ASP	I	217	-153.112	61.141	71.45	1	146.25	C
ATOM	7927	O	ASP	I	217	-153.727	62.151	71.838	1	114.64	O
ATOM	7928	N	LYS	I	218	-153.389	60.532	70.294	1	149.21	N
ATOM	7929	CA	LYS	I	218	-154.591	60.836	69.487	1	154.78	C
ATOM	7930	CB	LYS	I	218	-154.521	62.246	68.871	1	165.37	C
ATOM	7931	CG	LYS	I	218	-155.846	62.803	68.338	1	165.84	C
ATOM	7932	CD	LYS	I	218	-156.582	63.661	69.362	1	166.05	C
ATOM	7933	CE	LYS	I	218	-157.8	64.343	68.751	1	159.26	C
ATOM	7934	NZ	LYS	I	218	-158.226	65.535	69.536	1	152.38	N
ATOM	7935	C	LYS	I	218	-154.736	59.819	68.352	1	145.28	C
ATOM	7936	O	LYS	I	218	-153.739	59.267	67.889	1	130.08	O
ATOM	7937	N	LYS	I	219	-155.974	59.575	67.921	1	143.12	N
ATOM	7938	CA	LYS	I	219	-156.251	58.826	66.692	1	156.51	C
ATOM	7939	CB	LYS	I	219	-157.172	57.629	66.987	1	162.14	C
ATOM	7940	CG	LYS	I	219	-156.985	56.417	66.062	1	169.62	C
ATOM	7941	CD	LYS	I	219	-158.049	56.309	64.968	1	172.65	C
ATOM	7942	CE	LYS	I	219	-157.503	55.75	63.652	1	165.11	C
ATOM	7943	NZ	LYS	I	219	-158.461	55.847	62.512	1	156.01	N
ATOM	7944	C	LYS	I	219	-156.859	59.763	65.637	1	164.24	C
ATOM	7945	O	LYS	I	219	-157.318	60.869	65.954	1	158.95	O
ATOM	7946	N	VAL	I	220	-156.829	59.309	64.383	1	170.75	N
ATOM	7947	CA	VAL	I	220	-157.273	60.083	63.214	1	176.68	C
ATOM	7948	CB	VAL	I	220	-156.174	60.027	62.118	1	176.54	C
ATOM	7949	CG1	VAL	I	220	-156.483	60.976	60.976	1	174.9	C
ATOM	7950	CG2	VAL	I	220	-154.809	60.368	62.717	1	166.8	C
ATOM	7951	C	VAL	I	220	-158.647	59.592	62.69	1	170.72	C
ATOM	7952	O	VAL	I	220	-158.993	58.425	62.849	1	159.73	O
ATOM	7953	N	GLU	I	221	-159.412	60.493	62.064	1	166.15	N
ATOM	7954	CA	GLU	I	221	-160.831	60.277	61.724	1	162.31	C
ATOM	7955	CB	GLU	I	221	-161.652	61.455	62.291	1	169.14	C
ATOM	7956	CG	GLU	I	221	-161.47	61.736	63.784	1	174.34	C
ATOM	7957	CD	GLU	I	221	-161.975	63.114	64.195	1	173.24	C
ATOM	7958	OE1	GLU	I	221	-161.362	64.123	63.778	1	171.38	O
ATOM	7959	OE2	GLU	I	221	-162.974	63.188	64.947	1	158.82	O
ATOM	7960	C	GLU	I	221	-161.108	60.164	60.202	1	159.98	C
ATOM	7961	O	GLU	I	221	-161.378	61.184	59.561	1	170.06	O

ATOM	7962	N	PRO	I	222	-161.059	58.936	59.615	1	157.25	N
ATOM	7963	CA	PRO	I	222	-161.397	58.781	58.177	1	158.28	C
ATOM	7964	CB	PRO	I	222	-161.093	57.297	57.895	1	151.08	C
ATOM	7965	CG	PRO	I	222	-160.124	56.891	58.94	1	148.23	C
ATOM	7966	CD	PRO	I	222	-160.462	57.7	60.16	1	153.48	C
ATOM	7967	C	PRO	I	222	-162.862	59.106	57.796	1	162.49	C
ATOM	7968	O	PRO	I	222	-163.785	58.591	58.434	1	165.38	O
ATOM	7969	N	LYS	I	223	-163.049	59.945	56.765	1	158.09	N
ATOM	7970	CA	LYS	I	223	-164.378	60.323	56.224	1	153.88	C
ATOM	7971	CB	LYS	I	223	-165.186	59.074	55.83	1	144.71	C
ATOM	7972	C	LYS	I	223	-165.164	61.277	57.162	1	158.14	C
ATOM	7973	O	LYS	I	223	-164.537	62.104	57.833	1	176.14	O
ATOM	7974	N	SER	I	224	-166.506	61.187	57.185	1	151.38	N
ATOM	7975	CA	SER	I	224	-167.389	62.073	57.989	1	151.12	C
ATOM	7976	CB	SER	I	224	-167.131	61.951	59.508	1	160.74	C
ATOM	7977	OG	SER	I	224	-167.568	60.701	60.022	1	169.67	O
ATOM	7978	C	SER	I	224	-167.306	63.541	57.565	1	134.55	C
ATOM	7979	O	SER	I	224	-168.02	63.977	56.664	1	115.29	O
TER	7980		SER	I	224						
ATOM	7981	N	ILE	J	2	-103.291	74.216	66.604	1	98.75	N
ATOM	7982	CA	ILE	J	2	-103.862	72.86	66.255	1	102.16	C
ATOM	7983	CB	ILE	J	2	-103.629	71.746	67.352	1	109.84	C
ATOM	7984	CG1	ILE	J	2	-103.403	72.317	68.795	1	114.22	C
ATOM	7985	CD1	ILE	J	2	-102.002	72.782	69.187	1	105.14	C
ATOM	7986	CG2	ILE	J	2	-102.556	70.756	66.895	1	105.81	C
ATOM	7987	C	ILE	J	2	-105.347	72.935	65.893	1	97.68	C
ATOM	7988	O	ILE	J	2	-106.171	72.223	66.461	1	89.62	O
ATOM	7989	N	VAL	J	3	-105.68	73.796	64.935	1	104.01	N
ATOM	7990	CA	VAL	J	3	-107.042	73.86	64.398	1	112.68	C
ATOM	7991	CB	VAL	J	3	-107.547	75.316	64.181	1	111.05	C
ATOM	7992	CG1	VAL	J	3	-106.83	76.013	63.031	1	114.8	C
ATOM	7993	CG2	VAL	J	3	-109.061	75.337	63.944	1	111.63	C
ATOM	7994	C	VAL	J	3	-107.13	73.018	63.113	1	116.54	C
ATOM	7995	O	VAL	J	3	-106.174	72.946	62.328	1	110.99	O
ATOM	7996	N	LEU	J	4	-108.288	72.386	62.922	1	115.81	N
ATOM	7997	CA	LEU	J	4	-108.549	71.525	61.774	1	106	C
ATOM	7998	CB	LEU	J	4	-109.303	70.276	62.213	1	100.1	C
ATOM	7999	CG	LEU	J	4	-108.413	69.195	62.838	1	108.27	C
ATOM	8000	CD1	LEU	J	4	-107.362	69.735	63.81	1	109.16	C
ATOM	8001	CD2	LEU	J	4	-109.263	68.14	63.537	1	117.97	C
ATOM	8002	C	LEU	J	4	-109.33	72.301	60.729	1	104.94	C
ATOM	8003	O	LEU	J	4	-109.943	73.331	61.034	1	107.6	O
ATOM	8004	N	THR	J	5	-109.285	71.817	59.492	1	100.01	N
ATOM	8005	CA	THR	J	5	-109.879	72.529	58.369	1	103.13	C

ATOM	8006	CB	THR	J	5	-108.858	73.464	57.728	1	110.59	C
ATOM	8007	OG1	THR	J	5	-108.022	74.019	58.755	1	116.52	O
ATOM	8008	CG2	THR	J	5	-109.575	74.573	56.95	1	113.36	C
ATOM	8009	C	THR	J	5	-110.408	71.571	57.321	1	104.5	C
ATOM	8010	O	THR	J	5	-109.653	70.862	56.66	1	111.26	O
ATOM	8011	N	GLN	J	6	-111.72	71.584	57.156	1	106.27	N
ATOM	8012	CA	GLN	J	6	-112.408	70.527	56.458	1	110.05	C
ATOM	8013	CB	GLN	J	6	-113.515	69.969	57.359	1	116.2	C
ATOM	8014	CG	GLN	J	6	-113.597	68.451	57.397	1	120.95	C
ATOM	8015	CD	GLN	J	6	-114.61	67.95	58.412	1	125.94	C
ATOM	8016	OE1	GLN	J	6	-114.335	67.878	59.617	1	109.5	O
ATOM	8017	NE2	GLN	J	6	-115.796	67.599	57.926	1	132.31	N
ATOM	8018	C	GLN	J	6	-112.962	71.064	55.142	1	108.41	C
ATOM	8019	O	GLN	J	6	-113.713	72.035	55.096	1	113.36	O
ATOM	8020	N	SER	J	7	-112.551	70.432	54.064	1	108.78	N
ATOM	8021	CA	SER	J	7	-113.054	70.745	52.757	1	111.96	C
ATOM	8022	CB	SER	J	7	-111.881	71.071	51.844	1	128.84	C
ATOM	8023	OG	SER	J	7	-112.24	72.052	50.905	1	139.86	O
ATOM	8024	C	SER	J	7	-113.77	69.48	52.293	1	106.83	C
ATOM	8025	O	SER	J	7	-113.304	68.388	52.59	1	116.59	O
ATOM	8026	N	PRO	J	8	-114.899	69.582	51.603	1	95.81	N
ATOM	8027	CA	PRO	J	8	-115.577	70.833	51.308	1	104.79	C
ATOM	8028	CB	PRO	J	8	-116.525	70.445	50.173	1	96.24	C
ATOM	8029	CG	PRO	J	8	-115.926	69.218	49.588	1	92.95	C
ATOM	8030	CD	PRO	J	8	-115.385	68.487	50.756	1	86.99	C
ATOM	8031	C	PRO	J	8	-116.37	71.325	52.511	1	124.2	C
ATOM	8032	O	PRO	J	8	-116.13	70.877	53.642	1	132.2	O
ATOM	8033	N	ALA	J	9	-117.283	72.262	52.258	1	130.95	N
ATOM	8034	CA	ALA	J	9	-118.32	72.634	53.216	1	133.1	C
ATOM	8035	CB	ALA	J	9	-118.521	74.141	53.204	1	134.27	C
ATOM	8036	C	ALA	J	9	-119.631	71.898	52.895	1	126.76	C
ATOM	8037	O	ALA	J	9	-120.26	71.326	53.791	1	115.48	O
ATOM	8038	N	SER	J	10	-120.03	71.942	51.619	1	126.05	N
ATOM	8039	CA	SER	J	10	-121.189	71.208	51.089	1	128.62	C
ATOM	8040	CB	SER	J	10	-122.303	72.16	50.668	1	133.46	C
ATOM	8041	OG	SER	J	10	-122.798	72.875	51.784	1	156.02	O
ATOM	8042	C	SER	J	10	-120.777	70.394	49.883	1	131.4	C
ATOM	8043	O	SER	J	10	-119.821	70.73	49.182	1	152.14	O
ATOM	8044	N	LEU	J	11	-121.537	69.343	49.619	1	128.54	N
ATOM	8045	CA	LEU	J	11	-121.102	68.286	48.714	1	123.07	C
ATOM	8046	CB	LEU	J	11	-120.002	67.495	49.415	1	124.06	C
ATOM	8047	CG	LEU	J	11	-119.935	65.977	49.282	1	126.4	C
ATOM	8048	CD1	LEU	J	11	-119.465	65.576	47.892	1	126.05	C
ATOM	8049	CD2	LEU	J	11	-119.013	65.445	50.369	1	129.69	C

ATOM	8050	C	LEU	J	11	-122.276	67.38	48.379	1	120.63	C
ATOM	8051	O	LEU	J	11	-123.058	67.033	49.266	1	136.56	O
ATOM	8052	N	ALA	J	12	-122.401	66.975	47.121	1	107.51	N
ATOM	8053	CA	ALA	J	12	-123.554	66.173	46.732	1	105.14	C
ATOM	8054	CB	ALA	J	12	-124.758	67.07	46.541	1	101.52	C
ATOM	8055	C	ALA	J	12	-123.333	65.298	45.504	1	110.57	C
ATOM	8056	O	ALA	J	12	-122.874	65.771	44.454	1	104.33	O
ATOM	8057	N	VAL	J	13	-123.697	64.022	45.647	1	114.06	N
ATOM	8058	CA	VAL	J	13	-123.291	62.988	44.699	1	118.1	C
ATOM	8059	CB	VAL	J	13	-121.943	62.359	45.125	1	126.84	C
ATOM	8060	CG1	VAL	J	13	-121.98	61.878	46.582	1	126.9	C
ATOM	8061	CG2	VAL	J	13	-121.532	61.248	44.164	1	127.58	C
ATOM	8062	C	VAL	J	13	-124.337	61.893	44.552	1	108.91	C
ATOM	8063	O	VAL	J	13	-125.041	61.574	45.509	1	99.9	O
ATOM	8064	N	SER	J	14	-124.413	61.33	43.344	1	106.47	N
ATOM	8065	CA	SER	J	14	-125.319	60.237	43.002	1	105.08	C
ATOM	8066	CB	SER	J	14	-125.16	59.862	41.52	1	105.63	C
ATOM	8067	OG	SER	J	14	-124.66	60.934	40.737	1	109.45	O
ATOM	8068	C	SER	J	14	-125.07	58.982	43.84	1	114.67	C
ATOM	8069	O	SER	J	14	-124.05	58.844	44.501	1	117.49	O
ATOM	8070	N	LEU	J	15	-126.008	58.05	43.76	1	121.59	N
ATOM	8071	CA	LEU	J	15	-125.891	56.768	44.441	1	117.53	C
ATOM	8072	CB	LEU	J	15	-127.24	56.037	44.432	1	124.09	C
ATOM	8073	CG	LEU	J	15	-128.494	56.763	44.964	1	125.45	C
ATOM	8074	CD1	LEU	J	15	-129.718	56.375	44.13	1	124	C
ATOM	8075	CD2	LEU	J	15	-128.735	56.519	46.454	1	121.69	C
ATOM	8076	C	LEU	J	15	-124.852	55.921	43.713	1	115.21	C
ATOM	8077	O	LEU	J	15	-124.634	56.078	42.509	1	110.76	O
ATOM	8078	N	GLY	J	16	-124.213	55.02	44.445	1	126.09	N
ATOM	8079	CA	GLY	J	16	-123.244	54.101	43.847	1	132.25	C
ATOM	8080	C	GLY	J	16	-121.973	54.783	43.376	1	126.36	C
ATOM	8081	O	GLY	J	16	-121.308	54.297	42.458	1	120.41	O
ATOM	8082	N	GLN	J	17	-121.639	55.901	44.017	1	121.45	N
ATOM	8083	CA	GLN	J	17	-120.644	56.829	43.497	1	123.66	C
ATOM	8084	CB	GLN	J	17	-121.369	57.892	42.648	1	121.96	C
ATOM	8085	CG	GLN	J	17	-120.512	58.613	41.623	1	129.35	C
ATOM	8086	CD	GLN	J	17	-119.73	57.66	40.734	1	135.47	C
ATOM	8087	OE1	GLN	J	17	-118.491	57.695	40.701	1	147.89	O
ATOM	8088	NE2	GLN	J	17	-120.447	56.779	40.034	1	120.8	N
ATOM	8089	C	GLN	J	17	-119.829	57.451	44.638	1	116.53	C
ATOM	8090	O	GLN	J	17	-120.276	57.442	45.792	1	106.46	O
ATOM	8091	N	ARG	J	18	-118.639	57.969	44.312	1	110.63	N
ATOM	8092	CA	ARG	J	18	-117.663	58.427	45.33	1	116.33	C
ATOM	8093	CB	ARG	J	18	-116.302	58.707	44.664	1	115.71	C

ATOM	8094	CG	ARG	J	18	-115.231	59.343	45.564	1	109.11	C
ATOM	8095	CD	ARG	J	18	-113.961	58.523	45.593	1	104.63	C
ATOM	8096	NE	ARG	J	18	-113.294	58.56	44.302	1	97.69	N
ATOM	8097	CZ	ARG	J	18	-112.541	57.592	43.796	1	93.81	C
ATOM	8098	NH1	ARG	J	18	-111.993	57.772	42.603	1	97.94	N
ATOM	8099	NH2	ARG	J	18	-112.331	56.452	44.452	1	96.82	N
ATOM	8100	C	ARG	J	18	-118.075	59.642	46.193	1	113.47	C
ATOM	8101	O	ARG	J	18	-118.849	60.491	45.782	1	117.3	O
ATOM	8102	N	ALA	J	19	-117.552	59.688	47.412	1	104.71	N
ATOM	8103	CA	ALA	J	19	-117.48	60.918	48.18	1	104.96	C
ATOM	8104	CB	ALA	J	19	-118.464	60.865	49.33	1	108.77	C
ATOM	8105	C	ALA	J	19	-116.05	61.089	48.697	1	104.68	C
ATOM	8106	O	ALA	J	19	-115.408	60.102	49.034	1	109.21	O
ATOM	8107	N	THR	J	20	-115.567	62.335	48.755	1	98.99	N
ATOM	8108	CA	THR	J	20	-114.209	62.663	49.22	1	86.88	C
ATOM	8109	CB	THR	J	20	-113.253	62.907	48.028	1	90.51	C
ATOM	8110	OG1	THR	J	20	-113.281	61.791	47.13	1	97.57	O
ATOM	8111	CG2	THR	J	20	-111.823	63.142	48.516	1	93.24	C
ATOM	8112	C	THR	J	20	-114.23	63.945	50.03	1	76.68	C
ATOM	8113	O	THR	J	20	-114.455	64.998	49.464	1	77.69	O
ATOM	8114	N	ILE	J	21	-113.977	63.871	51.332	1	74.28	N
ATOM	8115	CA	ILE	J	21	-113.943	65.068	52.186	1	79.57	C
ATOM	8116	CB	ILE	J	21	-115.099	65.094	53.228	1	88.35	C
ATOM	8117	CG1	ILE	J	21	-115.058	63.9	54.197	1	92.67	C
ATOM	8118	CD1	ILE	J	21	-116.252	63.82	55.122	1	94.74	C
ATOM	8119	CG2	ILE	J	21	-116.446	65.129	52.517	1	91.55	C
ATOM	8120	C	ILE	J	21	-112.59	65.226	52.877	1	80.87	C
ATOM	8121	O	ILE	J	21	-112.175	64.364	53.641	1	85.18	O
ATOM	8122	N	SER	J	22	-111.903	66.33	52.6	1	83.47	N
ATOM	8123	CA	SER	J	22	-110.577	66.596	53.169	1	87.3	C
ATOM	8124	CB	SER	J	22	-109.883	67.754	52.432	1	89.97	C
ATOM	8125	OG	SER	J	22	-110.085	67.688	51.023	1	95.36	O
ATOM	8126	C	SER	J	22	-110.665	66.948	54.643	1	85.11	C
ATOM	8127	O	SER	J	22	-111.728	67.286	55.137	1	89.42	O
ATOM	8128	N	CYS	J	23	-109.543	66.843	55.338	1	87.74	N
ATOM	8129	CA	CYS	J	23	-109.367	67.537	56.598	1	92.08	C
ATOM	8130	CB	CYS	J	23	-109.979	66.78	57.759	1	101.95	C
ATOM	8131	SG	CYS	J	23	-109.938	67.788	59.25	1	126.36	S
ATOM	8132	C	CYS	J	23	-107.895	67.746	56.855	1	91.14	C
ATOM	8133	O	CYS	J	23	-107.168	66.775	57.001	1	97.29	O
ATOM	8134	N	ARG	J	24	-107.468	69.008	56.902	1	92.61	N
ATOM	8135	CA	ARG	J	24	-106.057	69.374	57.077	1	94.78	C
ATOM	8136	CB	ARG	J	24	-105.627	70.41	56.031	1	103.2	C
ATOM	8137	CG	ARG	J	24	-106.217	70.171	54.639	1	117.64	C

ATOM	8138	CD	ARG	J	24	-105.537	70.901	53.466	1	125.77	C
ATOM	8139	NE	ARG	J	24	-104.083	71.137	53.546	1	137.49	N
ATOM	8140	CZ	ARG	J	24	-103.129	70.224	53.779	1	151.68	C
ATOM	8141	NH1	ARG	J	24	-103.414	68.952	54.023	1	154.11	N
ATOM	8142	NH2	ARG	J	24	-101.847	70.597	53.808	1	156.7	N
ATOM	8143	C	ARG	J	24	-105.829	69.939	58.471	1	91.8	C
ATOM	8144	O	ARG	J	24	-106.696	70.609	59.019	1	97.02	O
ATOM	8145	N	ALA	J	25	-104.646	69.692	59.022	1	90.9	N
ATOM	8146	CA	ALA	J	25	-104.281	70.14	60.373	1	93.89	C
ATOM	8147	CB	ALA	J	25	-103.852	68.936	61.202	1	91.91	C
ATOM	8148	C	ALA	J	25	-103.18	71.24	60.395	1	95.7	C
ATOM	8149	O	ALA	J	25	-102.356	71.342	59.48	1	98.43	O
ATOM	8150	N	SER	J	26	-103.178	72.048	61.456	1	91.06	N
ATOM	8151	CA	SER	J	26	-102.248	73.17	61.6	1	89.78	C
ATOM	8152	CB	SER	J	26	-102.662	74.049	62.766	1	89.65	C
ATOM	8153	OG	SER	J	26	-104.024	74.375	62.646	1	96.27	O
ATOM	8154	C	SER	J	26	-100.823	72.72	61.825	1	94.84	C
ATOM	8155	O	SER	J	26	-99.876	73.33	61.33	1	108.03	O
ATOM	8156	N	GLU	J	27	-100.67	71.684	62.63	1	94.64	N
ATOM	8157	CA	GLU	J	27	-99.39	71.017	62.78	1	95.89	C
ATOM	8158	CB	GLU	J	27	-98.785	71.298	64.148	1	98.8	C
ATOM	8159	CG	GLU	J	27	-98.665	72.759	64.543	1	103.19	C
ATOM	8160	CD	GLU	J	27	-98.641	72.93	66.06	1	115.87	C
ATOM	8161	OE1	GLU	J	27	-99.716	72.852	66.687	1	125.51	O
ATOM	8162	OE2	GLU	J	27	-97.552	73.134	66.638	1	123.38	O
ATOM	8163	C	GLU	J	27	-99.634	69.522	62.631	1	93.7	C
ATOM	8164	O	GLU	J	27	-100.795	69.071	62.584	1	81.63	O
ATOM	8165	N	SER	J	28	-98.537	68.763	62.572	1	89.99	N
ATOM	8166	CA	SER	J	28	-98.611	67.316	62.456	1	89.21	C
ATOM	8167	CB	SER	J	28	-97.237	66.651	62.434	1	98.12	C
ATOM	8168	OG	SER	J	28	-97.335	65.257	62.756	1	95.8	O
ATOM	8169	C	SER	J	28	-99.377	66.757	63.622	1	93.01	C
ATOM	8170	O	SER	J	28	-99.329	67.297	64.727	1	98.62	O
ATOM	8171	N	VAL	J	29	-100.054	65.65	63.342	1	92.62	N
ATOM	8172	CA	VAL	J	29	-100.954	64.97	64.256	1	82.04	C
ATOM	8173	CB	VAL	J	29	-102.334	64.93	63.577	1	78.33	C
ATOM	8174	CG1	VAL	J	29	-103.291	63.965	64.243	1	82.84	C
ATOM	8175	CG2	VAL	J	29	-102.919	66.343	63.534	1	77.12	C
ATOM	8176	C	VAL	J	29	-100.432	63.568	64.571	1	84.65	C
ATOM	8177	O	VAL	J	29	-101.06	62.841	65.321	1	78.47	O
ATOM	8178	N	ASP	J	30	-99.267	63.207	64.019	1	93.16	N
ATOM	8179	CA	ASP	J	30	-98.727	61.847	64.121	1	94.78	C
ATOM	8180	CB	ASP	J	30	-97.863	61.505	62.896	1	100.7	C
ATOM	8181	CG	ASP	J	30	-98.656	61.42	61.615	1	101.26	C

ATOM	8182	OD1	ASP	J	30	-99.891	61.355	61.671	1	104.26	O
ATOM	8183	OD2	ASP	J	30	-98.038	61.423	60.531	1	104.86	O
ATOM	8184	C	ASP	J	30	-97.865	61.69	65.356	1	89.67	C
ATOM	8185	O	ASP	J	30	-97.471	62.668	65.982	1	93.16	O
ATOM	8186	N	THR	J	31	-97.569	60.444	65.688	1	80.97	N
ATOM	8187	CA	THR	J	31	-96.627	60.128	66.74	1	82.23	C
ATOM	8188	CB	THR	J	31	-97.271	60.275	68.124	1	81.85	C
ATOM	8189	OG1	THR	J	31	-97.871	61.564	68.239	1	77.51	O
ATOM	8190	CG2	THR	J	31	-96.237	60.08	69.232	1	85.55	C
ATOM	8191	C	THR	J	31	-96.192	58.683	66.584	1	87.88	C
ATOM	8192	O	THR	J	31	-96.994	57.775	66.822	1	95.04	O
ATOM	8193	N	TYR	J	32	-94.936	58.472	66.196	1	89.72	N
ATOM	8194	CA	TYR	J	32	-94.424	57.132	65.886	1	90.12	C
ATOM	8195	CB	TYR	J	32	-94.422	56.219	67.123	1	91.22	C
ATOM	8196	CG	TYR	J	32	-93.718	56.731	68.349	1	90.2	C
ATOM	8197	CD1	TYR	J	32	-92.628	57.571	68.26	1	92.73	C
ATOM	8198	CE1	TYR	J	32	-91.971	58.001	69.395	1	104.86	C
ATOM	8199	CZ	TYR	J	32	-92.392	57.577	70.644	1	108.79	C
ATOM	8200	OH	TYR	J	32	-91.733	57.993	71.774	1	114.43	O
ATOM	8201	CE2	TYR	J	32	-93.468	56.73	70.755	1	104.9	C
ATOM	8202	CD2	TYR	J	32	-94.115	56.306	69.611	1	98.95	C
ATOM	8203	C	TYR	J	32	-95.253	56.487	64.775	1	84.08	C
ATOM	8204	O	TYR	J	32	-95.686	55.337	64.875	1	77.91	O
ATOM	8205	N	GLY	J	33	-95.473	57.235	63.707	1	82.9	N
ATOM	8206	CA	GLY	J	33	-96.483	56.845	62.746	1	88.59	C
ATOM	8207	C	GLY	J	33	-97.785	57.212	63.402	1	93.88	C
ATOM	8208	O	GLY	J	33	-97.85	58.225	64.095	1	111.83	O
ATOM	8209	N	ASN	J	34	-98.813	56.404	63.188	1	91.36	N
ATOM	8210	CA	ASN	J	34	-100.127	56.591	63.832	1	91.3	C
ATOM	8211	CB	ASN	J	34	-100.111	55.964	65.213	1	90.69	C
ATOM	8212	CG	ASN	J	34	-99.92	54.469	65.138	1	96.43	C
ATOM	8213	OD1	ASN	J	34	-99.097	53.982	64.358	1	111.25	O
ATOM	8214	ND2	ASN	J	34	-100.688	53.731	65.913	1	98.63	N
ATOM	8215	C	ASN	J	34	-100.667	58.013	63.907	1	88.64	C
ATOM	8216	O	ASN	J	34	-100.195	58.841	64.689	1	81.13	O
ATOM	8217	N	SER	J	35	-101.677	58.27	63.09	1	91.51	N
ATOM	8218	CA	SER	J	35	-102.268	59.583	62.991	1	99.69	C
ATOM	8219	CB	SER	J	35	-102.646	59.871	61.542	1	106.26	C
ATOM	8220	OG	SER	J	35	-101.503	60.122	60.734	1	116.33	O
ATOM	8221	C	SER	J	35	-103.512	59.603	63.855	1	101.77	C
ATOM	8222	O	SER	J	35	-104.393	58.765	63.674	1	109.35	O
ATOM	8223	N	PHE	J	36	-103.597	60.566	64.773	1	95.02	N
ATOM	8224	CA	PHE	J	36	-104.77	60.711	65.651	1	90.83	C
ATOM	8225	CB	PHE	J	36	-104.323	61.112	67.052	1	89.55	C

ATOM	8226	CG	PHE	J	36	-103.297	60.177	67.582	1	89.41	C
ATOM	8227	CD1	PHE	J	36	-103.661	58.955	68.134	1	86.49	C
ATOM	8228	CE1	PHE	J	36	-102.695	58.063	68.563	1	83.08	C
ATOM	8229	CZ	PHE	J	36	-101.359	58.378	68.399	1	86.01	C
ATOM	8230	CE2	PHE	J	36	-100.993	59.567	67.817	1	92.32	C
ATOM	8231	CD2	PHE	J	36	-101.96	60.449	67.395	1	93.28	C
ATOM	8232	C	PHE	J	36	-105.813	61.623	65.026	1	87.25	C
ATOM	8233	O	PHE	J	36	-106.161	62.695	65.524	1	84.27	O
ATOM	8234	N	MET	J	37	-106.286	61.144	63.891	1	82.15	N
ATOM	8235	CA	MET	J	37	-107.377	61.714	63.196	1	87.4	C
ATOM	8236	CB	MET	J	37	-107.038	61.77	61.711	1	90.58	C
ATOM	8237	CG	MET	J	37	-108.01	62.555	60.871	1	97.28	C
ATOM	8238	SD	MET	J	37	-108.304	64.2	61.54	1	114.84	S
ATOM	8239	CE	MET	J	37	-106.687	64.961	61.624	1	110.79	C
ATOM	8240	C	MET	J	37	-108.485	60.716	63.497	1	93.52	C
ATOM	8241	O	MET	J	37	-108.2	59.529	63.712	1	93.84	O
ATOM	8242	N	HIS	J	38	-109.724	61.202	63.598	1	94.32	N
ATOM	8243	CA	HIS	J	38	-110.912	60.342	63.722	1	88.53	C
ATOM	8244	CB	HIS	J	38	-111.232	60.022	65.168	1	86.05	C
ATOM	8245	CG	HIS	J	38	-110.029	59.897	66.032	1	83.95	C
ATOM	8246	ND1	HIS	J	38	-109.381	58.702	66.228	1	87.8	N
ATOM	8247	CE1	HIS	J	38	-108.353	58.886	67.033	1	88.95	C
ATOM	8248	NE2	HIS	J	38	-108.299	60.165	67.346	1	89.23	N
ATOM	8249	CD2	HIS	J	38	-109.33	60.822	66.723	1	82.64	C
ATOM	8250	C	HIS	J	38	-112.114	61.028	63.108	1	90.36	C
ATOM	8251	O	HIS	J	38	-112.323	62.236	63.307	1	82.87	O
ATOM	8252	N	TRP	J	39	-112.912	60.236	62.394	1	93.71	N
ATOM	8253	CA	TRP	J	39	-113.976	60.755	61.55	1	99.61	C
ATOM	8254	CB	TRP	J	39	-113.792	60.282	60.122	1	99.36	C
ATOM	8255	CG	TRP	J	39	-112.641	60.878	59.427	1	95.43	C
ATOM	8256	CD1	TRP	J	39	-111.353	60.419	59.392	1	96.86	C
ATOM	8257	NE1	TRP	J	39	-110.579	61.251	58.633	1	99.35	N
ATOM	8258	CE2	TRP	J	39	-111.369	62.272	58.169	1	102.97	C
ATOM	8259	CD2	TRP	J	39	-112.67	62.058	58.656	1	94.18	C
ATOM	8260	CE3	TRP	J	39	-113.672	62.97	58.334	1	97.23	C
ATOM	8261	CZ3	TRP	J	39	-113.359	64.048	57.534	1	107.85	C
ATOM	8262	CH2	TRP	J	39	-112.059	64.239	57.056	1	112.52	C
ATOM	8263	CZ2	TRP	J	39	-111.049	63.366	57.364	1	114.03	C
ATOM	8264	C	TRP	J	39	-115.337	60.295	62.03	1	104.56	C
ATOM	8265	O	TRP	J	39	-115.548	59.101	62.263	1	110.72	O
ATOM	8266	N	TYR	J	40	-116.266	61.245	62.116	1	103.59	N
ATOM	8267	CA	TYR	J	40	-117.571	61.02	62.705	1	96.83	C
ATOM	8268	CB	TYR	J	40	-117.742	61.919	63.935	1	92.01	C
ATOM	8269	CG	TYR	J	40	-116.725	61.641	65.016	1	94.4	C

ATOM	8270	CD1	TYR	J	40	-116.633	60.377	65.581	1	99.35	C
ATOM	8271	CE1	TYR	J	40	-115.697	60.086	66.567	1	102	C
ATOM	8272	CZ	TYR	J	40	-114.832	61.069	67.024	1	102.63	C
ATOM	8273	OH	TYR	J	40	-113.918	60.745	68.013	1	94.95	O
ATOM	8274	CE2	TYR	J	40	-114.906	62.348	66.48	1	99.17	C
ATOM	8275	CD2	TYR	J	40	-115.843	62.627	65.475	1	97.8	C
ATOM	8276	C	TYR	J	40	-118.688	61.282	61.709	1	99.6	C
ATOM	8277	O	TYR	J	40	-118.612	62.224	60.913	1	97.96	O
ATOM	8278	N	GLN	J	41	-119.71	60.425	61.754	1	107.13	N
ATOM	8279	CA	GLN	J	41	-121.004	60.68	61.103	1	108.22	C
ATOM	8280	CB	GLN	J	41	-121.643	59.384	60.599	1	102.75	C
ATOM	8281	CG	GLN	J	41	-122.914	59.552	59.777	1	95.22	C
ATOM	8282	CD	GLN	J	41	-123.364	58.235	59.166	1	97.38	C
ATOM	8283	OE1	GLN	J	41	-123.774	57.326	59.884	1	103.01	O
ATOM	8284	NE2	GLN	J	41	-123.286	58.121	57.84	1	92.46	N
ATOM	8285	C	GLN	J	41	-121.929	61.308	62.115	1	110.44	C
ATOM	8286	O	GLN	J	41	-121.792	61.085	63.33	1	104.23	O
ATOM	8287	N	GLN	J	42	-122.873	62.092	61.61	1	112.84	N
ATOM	8288	CA	GLN	J	42	-123.905	62.662	62.453	1	119.57	C
ATOM	8289	CB	GLN	J	42	-123.352	63.812	63.288	1	111.47	C
ATOM	8290	CG	GLN	J	42	-124.169	64.095	64.529	1	108.67	C
ATOM	8291	CD	GLN	J	42	-124.213	65.564	64.847	1	109.04	C
ATOM	8292	OE1	GLN	J	42	-124.652	66.367	64.01	1	108.89	O
ATOM	8293	NE2	GLN	J	42	-123.761	65.936	66.057	1	99.96	N
ATOM	8294	C	GLN	J	42	-125.087	63.135	61.621	1	126.58	C
ATOM	8295	O	GLN	J	42	-124.938	63.941	60.695	1	123.93	O
ATOM	8296	N	LYS	J	43	-126.255	62.597	61.951	1	135.15	N
ATOM	8297	CA	LYS	J	43	-127.505	63.027	61.359	1	141.51	C
ATOM	8298	CB	LYS	J	43	-128.465	61.836	61.256	1	148.47	C
ATOM	8299	CG	LYS	J	43	-127.887	60.637	60.518	1	145.79	C
ATOM	8300	CD	LYS	J	43	-128.969	59.648	60.1	1	146.82	C
ATOM	8301	CE	LYS	J	43	-128.373	58.368	59.528	1	147.62	C
ATOM	8302	NZ	LYS	J	43	-127.793	58.569	58.171	1	143.42	N
ATOM	8303	C	LYS	J	43	-128.074	64.114	62.269	1	135.98	C
ATOM	8304	O	LYS	J	43	-127.612	64.261	63.415	1	127.12	O
ATOM	8305	N	PRO	J	44	-129.065	64.888	61.771	1	125.05	N
ATOM	8306	CA	PRO	J	44	-129.79	65.754	62.692	1	118.31	C
ATOM	8307	CB	PRO	J	44	-130.787	66.482	61.779	1	120.9	C
ATOM	8308	CG	PRO	J	44	-130.984	65.561	60.629	1	120.89	C
ATOM	8309	CD	PRO	J	44	-129.627	64.959	60.407	1	124.03	C
ATOM	8310	C	PRO	J	44	-130.519	64.874	63.693	1	116.49	C
ATOM	8311	O	PRO	J	44	-131.076	63.843	63.297	1	118.73	O
ATOM	8312	N	GLY	J	45	-130.484	65.25	64.97	1	114.2	N
ATOM	8313	CA	GLY	J	45	-131.176	64.499	66.026	1	115.01	C

ATOM	8314	C	GLY	J	45	-130.239	63.563	66.749	1	117.16	C
ATOM	8315	O	GLY	J	45	-129.951	63.766	67.929	1	116.17	O
ATOM	8316	N	GLN	J	46	-129.755	62.546	66.034	1	123.97	N
ATOM	8317	CA	GLN	J	46	-128.779	61.589	66.577	1	123.81	C
ATOM	8318	CB	GLN	J	46	-128.536	60.436	65.592	1	128.7	C
ATOM	8319	CG	GLN	J	46	-129.689	59.445	65.459	1	136.08	C
ATOM	8320	CD	GLN	J	46	-129.539	58.482	64.274	1	139.77	C
ATOM	8321	OE1	GLN	J	46	-128.783	58.745	63.331	1	146.17	O
ATOM	8322	NE2	GLN	J	46	-130.272	57.363	64.314	1	129.27	N
ATOM	8323	C	GLN	J	46	-127.426	62.251	66.9	1	118.25	C
ATOM	8324	O	GLN	J	46	-127.018	63.187	66.209	1	104.03	O
ATOM	8325	N	PRO	J	47	-126.72	61.744	67.935	1	119.91	N
ATOM	8326	CA	PRO	J	47	-125.36	62.164	68.295	1	121.1	C
ATOM	8327	CB	PRO	J	47	-125.176	61.542	69.68	1	121.13	C
ATOM	8328	CG	PRO	J	47	-125.948	60.281	69.596	1	127.54	C
ATOM	8329	CD	PRO	J	47	-127.159	60.602	68.762	1	124.63	C
ATOM	8330	C	PRO	J	47	-124.33	61.593	67.311	1	131.39	C
ATOM	8331	O	PRO	J	47	-124.693	60.78	66.452	1	139.03	O
ATOM	8332	N	PRO	J	48	-123.046	61.992	67.434	1	130.56	N
ATOM	8333	CA	PRO	J	48	-122.105	61.563	66.398	1	121.32	C
ATOM	8334	CB	PRO	J	48	-120.965	62.559	66.543	1	121.94	C
ATOM	8335	CG	PRO	J	48	-120.961	62.89	67.99	1	117.84	C
ATOM	8336	CD	PRO	J	48	-122.381	62.808	68.468	1	121.82	C
ATOM	8337	C	PRO	J	48	-121.603	60.136	66.589	1	120.39	C
ATOM	8338	O	PRO	J	48	-121.422	59.687	67.728	1	113.16	O
ATOM	8339	N	LYS	J	49	-121.373	59.455	65.465	1	118.07	N
ATOM	8340	CA	LYS	J	49	-120.942	58.053	65.424	1	119.8	C
ATOM	8341	CB	LYS	J	49	-121.849	57.286	64.449	1	121.05	C
ATOM	8342	CG	LYS	J	49	-122.348	55.931	64.936	1	125.76	C
ATOM	8343	CD	LYS	J	49	-122.655	55.016	63.759	1	132.54	C
ATOM	8344	CE	LYS	J	49	-123.75	54.018	64.076	1	144.32	C
ATOM	8345	NZ	LYS	J	49	-123.975	53.119	62.909	1	152.58	N
ATOM	8346	C	LYS	J	49	-119.502	57.976	64.908	1	117.25	C
ATOM	8347	O	LYS	J	49	-119.206	58.598	63.89	1	122.93	O
ATOM	8348	N	LEU	J	50	-118.616	57.228	65.581	1	108.1	N
ATOM	8349	CA	LEU	J	50	-117.291	56.895	65	1	106.5	C
ATOM	8350	CB	LEU	J	50	-116.433	56.001	65.906	1	107.88	C
ATOM	8351	CG	LEU	J	50	-115.118	56.528	66.499	1	115.52	C
ATOM	8352	CD1	LEU	J	50	-115.304	56.973	67.931	1	123.61	C
ATOM	8353	CD2	LEU	J	50	-114.022	55.48	66.489	1	114.9	C
ATOM	8354	C	LEU	J	50	-117.466	56.138	63.699	1	106.82	C
ATOM	8355	O	LEU	J	50	-118.141	55.124	63.676	1	118.76	O
ATOM	8356	N	LEU	J	51	-116.869	56.627	62.623	1	102.08	N
ATOM	8357	CA	LEU	J	51	-116.678	55.812	61.442	1	103.11	C

ATOM	8358	CB	LEU	J	51	-116.79	56.65	60.168	1	115.43	C
ATOM	8359	CG	LEU	J	51	-118.177	56.768	59.513	1	122.76	C
ATOM	8360	CD1	LEU	J	51	-119.351	56.453	60.438	1	124.91	C
ATOM	8361	CD2	LEU	J	51	-118.334	58.159	58.911	1	127.82	C
ATOM	8362	C	LEU	J	51	-115.32	55.157	61.556	1	105.28	C
ATOM	8363	O	LEU	J	51	-115.217	53.928	61.619	1	112.76	O
ATOM	8364	N	ILE	J	52	-114.284	55.985	61.625	1	101.16	N
ATOM	8365	CA	ILE	J	52	-112.913	55.505	61.557	1	97.76	C
ATOM	8366	CB	ILE	J	52	-112.331	55.68	60.144	1	104.9	C
ATOM	8367	CG1	ILE	J	52	-112.645	57.079	59.622	1	119.31	C
ATOM	8368	CD1	ILE	J	52	-112.045	57.42	58.278	1	138.41	C
ATOM	8369	CG2	ILE	J	52	-112.91	54.639	59.193	1	108.45	C
ATOM	8370	C	ILE	J	52	-112.015	56.195	62.569	1	95.74	C
ATOM	8371	O	ILE	J	52	-112.173	57.384	62.872	1	98.47	O
ATOM	8372	N	TYR	J	53	-111.079	55.423	63.098	1	90.04	N
ATOM	8373	CA	TYR	J	53	-110.146	55.916	64.096	1	91.23	C
ATOM	8374	CB	TYR	J	53	-110.391	55.269	65.46	1	92.4	C
ATOM	8375	CG	TYR	J	53	-110.237	53.765	65.493	1	89.44	C
ATOM	8376	CD1	TYR	J	53	-111.32	52.943	65.219	1	89.16	C
ATOM	8377	CE1	TYR	J	53	-111.198	51.571	65.251	1	93.98	C
ATOM	8378	CZ	TYR	J	53	-109.981	51.004	65.562	1	97.63	C
ATOM	8379	OH	TYR	J	53	-109.894	49.634	65.587	1	117.14	O
ATOM	8380	CE2	TYR	J	53	-108.881	51.797	65.837	1	88.44	C
ATOM	8381	CD2	TYR	J	53	-109.013	53.168	65.801	1	85.2	C
ATOM	8382	C	TYR	J	53	-108.729	55.633	63.66	1	95.21	C
ATOM	8383	O	TYR	J	53	-108.482	54.847	62.74	1	108.05	O
ATOM	8384	N	LEU	J	54	-107.791	56.256	64.356	1	88.03	N
ATOM	8385	CA	LEU	J	54	-106.414	56.26	63.944	1	81.63	C
ATOM	8386	CB	LEU	J	54	-105.733	54.968	64.427	1	81.98	C
ATOM	8387	CG	LEU	J	54	-104.924	55.032	65.753	1	85.53	C
ATOM	8388	CD1	LEU	J	54	-105.011	56.342	66.55	1	82.33	C
ATOM	8389	CD2	LEU	J	54	-105.253	53.846	66.663	1	89.21	C
ATOM	8390	C	LEU	J	54	-106.313	56.537	62.435	1	73.97	C
ATOM	8391	O	LEU	J	54	-105.576	55.893	61.694	1	70.07	O
ATOM	8392	N	ALA	J	55	-107.102	57.516	62.006	1	69.48	N
ATOM	8393	CA	ALA	J	55	-107.109	58.02	60.647	1	72.27	C
ATOM	8394	CB	ALA	J	55	-105.734	58.547	60.288	1	74.13	C
ATOM	8395	C	ALA	J	55	-107.615	57.076	59.563	1	74.26	C
ATOM	8396	O	ALA	J	55	-108.265	57.55	58.621	1	71.91	O
ATOM	8397	N	SER	J	56	-107.296	55.778	59.683	1	75.41	N
ATOM	8398	CA	SER	J	56	-107.611	54.77	58.669	1	78.57	C
ATOM	8399	CB	SER	J	56	-106.378	54.572	57.797	1	78.77	C
ATOM	8400	OG	SER	J	56	-105.405	53.811	58.497	1	81.61	O
ATOM	8401	C	SER	J	56	-108.089	53.381	59.158	1	82.69	C

ATOM	8402	O	SER	J	56	-108.194	52.479	58.332	1	95.75	O
ATOM	8403	N	ASN	J	57	-108.38	53.187	60.45	1	83.13	N
ATOM	8404	CA	ASN	J	57	-109.051	51.95	60.924	1	83.26	C
ATOM	8405	CB	ASN	J	57	-108.604	51.567	62.334	1	90.11	C
ATOM	8406	CG	ASN	J	57	-107.11	51.56	62.488	1	101.11	C
ATOM	8407	OD1	ASN	J	57	-106.482	52.611	62.423	1	109.73	O
ATOM	8408	ND2	ASN	J	57	-106.527	50.379	62.704	1	111.66	N
ATOM	8409	C	ASN	J	57	-110.574	52.114	60.957	1	80	C
ATOM	8410	O	ASN	J	57	-111.073	53.172	61.34	1	81.56	O
ATOM	8411	N	LEU	J	58	-111.301	51.058	60.602	1	73.8	N
ATOM	8412	CA	LEU	J	58	-112.767	51.059	60.662	1	74.17	C
ATOM	8413	CB	LEU	J	58	-113.324	50.06	59.674	1	77.17	C
ATOM	8414	CG	LEU	J	58	-113.558	50.701	58.322	1	86.89	C
ATOM	8415	CD1	LEU	J	58	-113.533	49.658	57.21	1	90.5	C
ATOM	8416	CD2	LEU	J	58	-114.87	51.482	58.35	1	91.15	C
ATOM	8417	C	LEU	J	58	-113.314	50.693	62.019	1	79.7	C
ATOM	8418	O	LEU	J	58	-112.983	49.625	62.542	1	81.99	O
ATOM	8419	N	GLU	J	59	-114.188	51.535	62.575	1	83.21	N
ATOM	8420	CA	GLU	J	59	-114.836	51.189	63.843	1	95.41	C
ATOM	8421	CB	GLU	J	59	-115.703	52.325	64.407	1	106.79	C
ATOM	8422	CG	GLU	J	59	-115.501	52.591	65.905	1	126.08	C
ATOM	8423	CD	GLU	J	59	-115.949	51.484	66.849	1	141.24	C
ATOM	8424	OE1	GLU	J	59	-116.931	50.783	66.541	1	155.04	O
ATOM	8425	OE2	GLU	J	59	-115.327	51.333	67.93	1	145.56	O
ATOM	8426	C	GLU	J	59	-115.682	49.95	63.606	1	96.49	C
ATOM	8427	O	GLU	J	59	-116.166	49.736	62.495	1	111.3	O
ATOM	8428	N	SER	J	60	-115.81	49.112	64.631	1	96.79	N
ATOM	8429	CA	SER	J	60	-116.708	47.955	64.589	1	92.86	C
ATOM	8430	CB	SER	J	60	-116.588	47.117	65.877	1	88.51	C
ATOM	8431	OG	SER	J	60	-117.042	45.784	65.705	1	80.99	O
ATOM	8432	C	SER	J	60	-118.146	48.461	64.385	1	96.02	C
ATOM	8433	O	SER	J	60	-118.568	49.421	65.03	1	84.53	O
ATOM	8434	N	GLY	J	61	-118.865	47.847	63.443	1	102.59	N
ATOM	8435	CA	GLY	J	61	-120.26	48.201	63.155	1	99.97	C
ATOM	8436	C	GLY	J	61	-120.437	48.971	61.867	1	96.85	C
ATOM	8437	O	GLY	J	61	-121.442	48.797	61.172	1	95.51	O
ATOM	8438	N	VAL	J	62	-119.443	49.8	61.548	1	98.41	N
ATOM	8439	CA	VAL	J	62	-119.45	50.683	60.374	1	100.53	C
ATOM	8440	CB	VAL	J	62	-118.515	51.881	60.627	1	107.45	C
ATOM	8441	CG1	VAL	J	62	-118.429	52.826	59.429	1	106.25	C
ATOM	8442	CG2	VAL	J	62	-118.989	52.616	61.878	1	115.52	C
ATOM	8443	C	VAL	J	62	-119	49.939	59.121	1	89.82	C
ATOM	8444	O	VAL	J	62	-118.021	49.205	59.178	1	91.38	O
ATOM	8445	N	PRO	J	63	-119.685	50.15	57.984	1	84.25	N

ATOM	8446	CA	PRO	J	63	-119.38	49.325	56.815	1	89.42	C
ATOM	8447	CB	PRO	J	63	-120.604	49.527	55.907	1	94.57	C
ATOM	8448	CG	PRO	J	63	-121.327	50.725	56.448	1	95.37	C
ATOM	8449	CD	PRO	J	63	-120.575	51.264	57.625	1	85.71	C
ATOM	8450	C	PRO	J	63	-118.108	49.762	56.091	1	89.62	C
ATOM	8451	O	PRO	J	63	-117.728	50.931	56.141	1	88.2	O
ATOM	8452	N	ALA	J	64	-117.487	48.839	55.374	1	86.58	N
ATOM	8453	CA	ALA	J	64	-116.23	49.129	54.694	1	97.86	C
ATOM	8454	CB	ALA	J	64	-115.604	47.848	54.139	1	103.62	C
ATOM	8455	C	ALA	J	64	-116.35	50.195	53.594	1	101.14	C
ATOM	8456	O	ALA	J	64	-115.343	50.588	53.002	1	111.63	O
ATOM	8457	N	ARG	J	65	-117.576	50.628	53.298	1	99.92	N
ATOM	8458	CA	ARG	J	65	-117.817	51.758	52.404	1	97.14	C
ATOM	8459	CB	ARG	J	65	-119.32	52.115	52.349	1	100.49	C
ATOM	8460	CG	ARG	J	65	-120.022	51.654	51.081	1	98.95	C
ATOM	8461	CD	ARG	J	65	-121.528	51.534	51.213	1	96.48	C
ATOM	8462	NE	ARG	J	65	-122.084	52.619	52.023	1	96.02	N
ATOM	8463	CZ	ARG	J	65	-122.778	52.472	53.154	1	102.55	C
ATOM	8464	NH1	ARG	J	65	-123.077	51.274	53.677	1	106.37	N
ATOM	8465	NH2	ARG	J	65	-123.203	53.551	53.774	1	105.51	N
ATOM	8466	C	ARG	J	65	-116.998	52.974	52.819	1	91.01	C
ATOM	8467	O	ARG	J	65	-116.422	53.685	52.008	1	81.36	O
ATOM	8468	N	PHE	J	66	-116.938	53.192	54.112	1	92.06	N
ATOM	8469	CA	PHE	J	66	-116.147	54.262	54.628	1	98.02	C
ATOM	8470	CB	PHE	J	66	-116.678	54.7	55.991	1	105.45	C
ATOM	8471	CG	PHE	J	66	-118.072	55.258	55.942	1	100.06	C
ATOM	8472	CD1	PHE	J	66	-119.173	54.423	56.018	1	107.67	C
ATOM	8473	CE1	PHE	J	66	-120.458	54.929	55.978	1	112.63	C
ATOM	8474	CZ	PHE	J	66	-120.649	56.291	55.865	1	114.67	C
ATOM	8475	CE2	PHE	J	66	-119.556	57.131	55.789	1	109.08	C
ATOM	8476	CD2	PHE	J	66	-118.279	56.613	55.826	1	101.19	C
ATOM	8477	C	PHE	J	66	-114.71	53.75	54.701	1	94.68	C
ATOM	8478	O	PHE	J	66	-114.467	52.574	55.003	1	88.92	O
ATOM	8479	N	SER	J	67	-113.781	54.643	54.376	1	88.74	N
ATOM	8480	CA	SER	J	67	-112.36	54.373	54.423	1	84.22	C
ATOM	8481	CB	SER	J	67	-111.872	53.927	53.039	1	84.62	C
ATOM	8482	OG	SER	J	67	-112.668	54.503	52.012	1	80.02	O
ATOM	8483	C	SER	J	67	-111.631	55.637	54.851	1	82.58	C
ATOM	8484	O	SER	J	67	-111.961	56.735	54.416	1	77.82	O
ATOM	8485	N	GLY	J	68	-110.632	55.474	55.705	1	85.1	N
ATOM	8486	CA	GLY	J	68	-109.765	56.575	56.08	1	85.32	C
ATOM	8487	C	GLY	J	68	-108.428	56.508	55.378	1	88.43	C
ATOM	8488	O	GLY	J	68	-107.956	55.432	54.987	1	95.29	O
ATOM	8489	N	SER	J	69	-107.811	57.669	55.226	1	84.2	N

ATOM	8490	CA	SER	J	69	-106.513	57.762	54.594	1	76.55	C
ATOM	8491	CB	SER	J	69	-106.686	57.717	53.099	1	80.94	C
ATOM	8492	OG	SER	J	69	-107.434	58.845	52.689	1	90.51	O
ATOM	8493	C	SER	J	69	-105.887	59.076	54.95	1	71.6	C
ATOM	8494	O	SER	J	69	-106.588	60.064	55.18	1	68.44	O
ATOM	8495	N	GLY	J	70	-104.565	59.089	54.979	1	74.71	N
ATOM	8496	CA	GLY	J	70	-103.823	60.309	55.245	1	80.66	C
ATOM	8497	C	GLY	J	70	-102.77	60.175	56.325	1	85.04	C
ATOM	8498	O	GLY	J	70	-102.591	59.11	56.941	1	81.32	O
ATOM	8499	N	SER	J	71	-102.093	61.296	56.559	1	90.45	N
ATOM	8500	CA	SER	J	71	-100.887	61.341	57.372	1	95.19	C
ATOM	8501	CB	SER	J	71	-99.743	60.691	56.591	1	101.46	C
ATOM	8502	OG	SER	J	71	-98.628	60.465	57.427	1	118.53	O
ATOM	8503	C	SER	J	71	-100.498	62.783	57.749	1	91.41	C
ATOM	8504	O	SER	J	71	-100.909	63.743	57.086	1	92.71	O
ATOM	8505	N	ARG	J	72	-99.667	62.899	58.784	1	85.02	N
ATOM	8506	CA	ARG	J	72	-99.149	64.179	59.325	1	90.59	C
ATOM	8507	CB	ARG	J	72	-97.796	64.619	58.687	1	106.89	C
ATOM	8508	CG	ARG	J	72	-97.303	63.834	57.475	1	119.08	C
ATOM	8509	CD	ARG	J	72	-96.393	64.64	56.551	1	125.15	C
ATOM	8510	NE	ARG	J	72	-96.482	64.14	55.171	1	133.69	N
ATOM	8511	CZ	ARG	J	72	-97.508	64.34	54.333	1	135.95	C
ATOM	8512	NH1	ARG	J	72	-98.585	65.044	54.699	1	139.97	N
ATOM	8513	NH2	ARG	J	72	-97.461	63.824	53.107	1	135.59	N
ATOM	8514	C	ARG	J	72	-100.141	65.351	59.392	1	81.97	C
ATOM	8515	O	ARG	J	72	-100.602	65.656	60.474	1	82.32	O
ATOM	8516	N	THR	J	73	-100.438	66.017	58.27	1	77.64	N
ATOM	8517	CA	THR	J	73	-101.421	67.122	58.248	1	77.16	C
ATOM	8518	CB	THR	J	73	-100.747	68.517	58.174	1	78.7	C
ATOM	8519	OG1	THR	J	73	-100.352	68.82	56.828	1	76.38	O
ATOM	8520	CG2	THR	J	73	-99.56	68.604	59.099	1	82.99	C
ATOM	8521	C	THR	J	73	-102.442	67.083	57.114	1	81.56	C
ATOM	8522	O	THR	J	73	-103.116	68.09	56.865	1	88.5	O
ATOM	8523	N	ASP	J	74	-102.552	65.96	56.415	1	84.02	N
ATOM	8524	CA	ASP	J	74	-103.464	65.86	55.289	1	91.35	C
ATOM	8525	CB	ASP	J	74	-102.696	65.783	53.969	1	103.61	C
ATOM	8526	CG	ASP	J	74	-103.567	66.111	52.76	1	114.07	C
ATOM	8527	OD1	ASP	J	74	-104.817	65.97	52.854	1	121.29	O
ATOM	8528	OD2	ASP	J	74	-102.996	66.523	51.719	1	109.89	O
ATOM	8529	C	ASP	J	74	-104.254	64.6	55.48	1	95.72	C
ATOM	8530	O	ASP	J	74	-103.667	63.529	55.649	1	100.58	O
ATOM	8531	N	PHE	J	75	-105.578	64.723	55.479	1	96.2	N
ATOM	8532	CA	PHE	J	75	-106.45	63.557	55.604	1	90.84	C
ATOM	8533	CB	PHE	J	75	-106.894	63.331	57.041	1	82.81	C

ATOM	8534	CG	PHE	J	75	-105.766	63.042	57.955	1	78.22	C
ATOM	8535	CD1	PHE	J	75	-105.341	61.75	58.158	1	79.86	C
ATOM	8536	CE1	PHE	J	75	-104.265	61.492	58.997	1	84.23	C
ATOM	8537	CZ	PHE	J	75	-103.6	62.538	59.625	1	83.34	C
ATOM	8538	CE2	PHE	J	75	-104.013	63.832	59.407	1	82.27	C
ATOM	8539	CD2	PHE	J	75	-105.085	64.077	58.568	1	78.21	C
ATOM	8540	C	PHE	J	75	-107.649	63.689	54.726	1	89.59	C
ATOM	8541	O	PHE	J	75	-108.008	64.787	54.29	1	87.88	O
ATOM	8542	N	THR	J	76	-108.241	62.531	54.465	1	89.05	N
ATOM	8543	CA	THR	J	76	-109.374	62.407	53.57	1	87.88	C
ATOM	8544	CB	THR	J	76	-108.968	62.484	52.063	1	86.01	C
ATOM	8545	OG1	THR	J	76	-109.703	61.52	51.306	1	76.95	O
ATOM	8546	CG2	THR	J	76	-107.459	62.246	51.836	1	89.1	C
ATOM	8547	C	THR	J	76	-110.153	61.135	53.914	1	85.69	C
ATOM	8548	O	THR	J	76	-109.574	60.096	54.248	1	85.96	O
ATOM	8549	N	LEU	J	77	-111.473	61.262	53.861	1	85.31	N
ATOM	8550	CA	LEU	J	77	-112.393	60.186	54.16	1	90.43	C
ATOM	8551	CB	LEU	J	77	-113.288	60.586	55.335	1	95.88	C
ATOM	8552	CG	LEU	J	77	-114.607	59.826	55.527	1	103.46	C
ATOM	8553	CD1	LEU	J	77	-114.432	58.315	55.537	1	103.55	C
ATOM	8554	CD2	LEU	J	77	-115.244	60.277	56.824	1	105.88	C
ATOM	8555	C	LEU	J	77	-113.207	59.904	52.896	1	86.04	C
ATOM	8556	O	LEU	J	77	-113.759	60.812	52.285	1	85.2	O
ATOM	8557	N	THR	J	78	-113.275	58.638	52.516	1	84.85	N
ATOM	8558	CA	THR	J	78	-113.845	58.236	51.251	1	84.64	C
ATOM	8559	CB	THR	J	78	-112.77	57.54	50.403	1	84.25	C
ATOM	8560	OG1	THR	J	78	-111.759	58.49	50.052	1	86.76	O
ATOM	8561	CG2	THR	J	78	-113.35	56.934	49.133	1	85.75	C
ATOM	8562	C	THR	J	78	-115.01	57.284	51.456	1	90.3	C
ATOM	8563	O	THR	J	78	-114.832	56.193	52.016	1	95.16	O
ATOM	8564	N	ILE	J	79	-116.184	57.687	50.965	1	89.89	N
ATOM	8565	CA	ILE	J	79	-117.363	56.824	50.946	1	87.93	C
ATOM	8566	CB	ILE	J	79	-118.635	57.613	51.218	1	91.64	C
ATOM	8567	CG1	ILE	J	79	-118.461	58.384	52.539	1	93.46	C
ATOM	8568	CD1	ILE	J	79	-119.697	59.107	53.035	1	93.74	C
ATOM	8569	CG2	ILE	J	79	-119.817	56.649	51.277	1	101.9	C
ATOM	8570	C	ILE	J	79	-117.44	56.077	49.616	1	85.93	C
ATOM	8571	O	ILE	J	79	-117.479	56.694	48.558	1	74.62	O
ATOM	8572	N	ASP	J	80	-117.52	54.746	49.71	1	96.4	N
ATOM	8573	CA	ASP	J	80	-116.949	53.821	48.708	1	109.84	C
ATOM	8574	CB	ASP	J	80	-116.804	52.404	49.332	1	122.76	C
ATOM	8575	CG	ASP	J	80	-115.912	51.432	48.54	1	137.45	C
ATOM	8576	OD1	ASP	J	80	-115.476	51.743	47.404	1	154.37	O
ATOM	8577	OD2	ASP	J	80	-115.643	50.33	49.103	1	121.68	O

ATOM	8578	C	ASP	J	80	-117.767	53.898	47.43	1	106.37	C
ATOM	8579	O	ASP	J	80	-117.275	54.494	46.451	1	97.83	O
ATOM	8580	N	PRO	J	81	-118.973	53.272	47.413	1	110.73	N
ATOM	8581	CA	PRO	J	81	-120.095	53.896	46.728	1	115.68	C
ATOM	8582	CB	PRO	J	81	-120.72	52.747	45.937	1	117.48	C
ATOM	8583	CG	PRO	J	81	-120.375	51.515	46.675	1	111.65	C
ATOM	8584	CD	PRO	J	81	-119.21	51.821	47.568	1	111.96	C
ATOM	8585	C	PRO	J	81	-121.064	54.402	47.772	1	109.69	C
ATOM	8586	O	PRO	J	81	-121.415	53.664	48.685	1	114.85	O
ATOM	8587	N	VAL	J	82	-121.47	55.657	47.643	1	111.24	N
ATOM	8588	CA	VAL	J	82	-122.381	56.292	48.601	1	111.83	C
ATOM	8589	CB	VAL	J	82	-122.341	57.847	48.429	1	108.19	C
ATOM	8590	CG1	VAL	J	82	-123.118	58.288	47.2	1	114.12	C
ATOM	8591	CG2	VAL	J	82	-122.836	58.576	49.669	1	101.16	C
ATOM	8592	C	VAL	J	82	-123.804	55.685	48.5	1	110.97	C
ATOM	8593	O	VAL	J	82	-124.202	55.154	47.455	1	105.49	O
ATOM	8594	N	GLU	J	83	-124.535	55.735	49.609	1	110.45	N
ATOM	8595	CA	GLU	J	83	-125.893	55.21	49.699	1	118.91	C
ATOM	8596	CB	GLU	J	83	-125.874	53.849	50.393	1	133.68	C
ATOM	8597	CG	GLU	J	83	-125.362	52.715	49.514	1	144.79	C
ATOM	8598	CD	GLU	J	83	-125.522	51.349	50.161	1	144.9	C
ATOM	8599	OE1	GLU	J	83	-124.761	51.048	51.103	1	138.47	O
ATOM	8600	OE2	GLU	J	83	-126.404	50.574	49.722	1	147.74	O
ATOM	8601	C	GLU	J	83	-126.79	56.175	50.47	1	123.09	C
ATOM	8602	O	GLU	J	83	-126.314	56.976	51.272	1	131.65	O
ATOM	8603	N	ALA	J	84	-128.093	56.071	50.235	1	124.84	N
ATOM	8604	CA	ALA	J	84	-129.098	56.976	50.821	1	127.18	C
ATOM	8605	CB	ALA	J	84	-130.491	56.398	50.633	1	140.02	C
ATOM	8606	C	ALA	J	84	-128.903	57.308	52.286	1	123.38	C
ATOM	8607	O	ALA	J	84	-129.115	58.456	52.687	1	126.54	O
ATOM	8608	N	ASP	J	85	-128.534	56.291	53.069	1	120.07	N
ATOM	8609	CA	ASP	J	85	-128.24	56.438	54.502	1	124.81	C
ATOM	8610	CB	ASP	J	85	-127.777	55.093	55.088	1	125.45	C
ATOM	8611	CG	ASP	J	85	-127.497	55.156	56.593	1	131.51	C
ATOM	8612	OD1	ASP	J	85	-128.065	56.017	57.304	1	129.5	O
ATOM	8613	OD2	ASP	J	85	-126.701	54.324	57.072	1	136.6	O
ATOM	8614	C	ASP	J	85	-127.183	57.505	54.772	1	125.85	C
ATOM	8615	O	ASP	J	85	-127.33	58.307	55.701	1	124.7	O
ATOM	8616	N	ASP	J	86	-126.15	57.522	53.928	1	120.05	N
ATOM	8617	CA	ASP	J	86	-124.952	58.342	54.13	1	110.13	C
ATOM	8618	CB	ASP	J	86	-123.912	58.052	53.04	1	112.92	C
ATOM	8619	CG	ASP	J	86	-123.469	56.592	53.031	1	117.4	C
ATOM	8620	OD1	ASP	J	86	-123.305	56.044	54.135	1	128.15	O
ATOM	8621	OD2	ASP	J	86	-123.3	55.966	51.947	1	104.18	O

ATOM	8622	C	ASP	J	86	-125.189	59.844	54.237	1	107.05	C
ATOM	8623	O	ASP	J	86	-124.358	60.531	54.821	1	107.73	O
ATOM	8624	N	ALA	J	87	-126.301	60.361	53.703	1	103.67	N
ATOM	8625	CA	ALA	J	87	-126.692	61.765	53.962	1	103.32	C
ATOM	8626	CB	ALA	J	87	-128.167	61.988	53.687	1	104.39	C
ATOM	8627	C	ALA	J	87	-126.397	62.125	55.405	1	97.12	C
ATOM	8628	O	ALA	J	87	-126.883	61.444	56.302	1	94.82	O
ATOM	8629	N	ALA	J	88	-125.574	63.153	55.617	1	98.92	N
ATOM	8630	CA	ALA	J	88	-125.182	63.59	56.968	1	106.4	C
ATOM	8631	CB	ALA	J	88	-124.608	62.421	57.767	1	112.3	C
ATOM	8632	C	ALA	J	88	-124.163	64.723	56.961	1	102.99	C
ATOM	8633	O	ALA	J	88	-123.43	64.925	55.994	1	106.37	O
ATOM	8634	N	THR	J	89	-124.119	65.454	58.061	1	99.89	N
ATOM	8635	CA	THR	J	89	-122.938	66.238	58.37	1	115.79	C
ATOM	8636	CB	THR	J	89	-123.211	67.35	59.432	1	127.23	C
ATOM	8637	OG1	THR	J	89	-121.988	68.019	59.768	1	129.15	O
ATOM	8638	CG2	THR	J	89	-123.86	66.819	60.722	1	129.07	C
ATOM	8639	C	THR	J	89	-121.863	65.216	58.803	1	121.69	C
ATOM	8640	O	THR	J	89	-122.198	64.219	59.451	1	127.62	O
ATOM	8641	N	TYR	J	90	-120.605	65.433	58.393	1	118.77	N
ATOM	8642	CA	TYR	J	90	-119.45	64.601	58.811	1	105.03	C
ATOM	8643	CB	TYR	J	90	-118.85	63.902	57.603	1	100.11	C
ATOM	8644	CG	TYR	J	90	-119.732	62.809	57.084	1	100.73	C
ATOM	8645	CD1	TYR	J	90	-119.826	61.598	57.766	1	99.19	C
ATOM	8646	CE1	TYR	J	90	-120.642	60.583	57.315	1	96.66	C
ATOM	8647	CZ	TYR	J	90	-121.384	60.769	56.164	1	104.04	C
ATOM	8648	OH	TYR	J	90	-122.193	59.748	55.72	1	118.92	O
ATOM	8649	CE2	TYR	J	90	-121.313	61.964	55.464	1	101.64	C
ATOM	8650	CD2	TYR	J	90	-120.492	62.979	55.929	1	98.93	C
ATOM	8651	C	TYR	J	90	-118.372	65.434	59.478	1	104.72	C
ATOM	8652	O	TYR	J	90	-118.182	66.586	59.096	1	104.99	O
ATOM	8653	N	TYR	J	91	-117.657	64.854	60.447	1	110.24	N
ATOM	8654	CA	TYR	J	91	-116.669	65.608	61.264	1	121.66	C
ATOM	8655	CB	TYR	J	91	-117.238	65.928	62.66	1	126.9	C
ATOM	8656	CG	TYR	J	91	-118.414	66.887	62.64	1	136.82	C
ATOM	8657	CD1	TYR	J	91	-119.705	66.429	62.387	1	132.06	C
ATOM	8658	CE1	TYR	J	91	-120.784	67.296	62.361	1	129.81	C
ATOM	8659	CZ	TYR	J	91	-120.593	68.648	62.589	1	141.63	C
ATOM	8660	OH	TYR	J	91	-121.676	69.498	62.559	1	143.41	O
ATOM	8661	CE2	TYR	J	91	-119.321	69.136	62.846	1	150.33	C
ATOM	8662	CD2	TYR	J	91	-118.239	68.257	62.869	1	150.67	C
ATOM	8663	C	TYR	J	91	-115.313	64.911	61.425	1	117.8	C
ATOM	8664	O	TYR	J	91	-115.248	63.702	61.623	1	112.22	O
ATOM	8665	N	CYS	J	92	-114.245	65.705	61.358	1	117.06	N

ATOM	8666	CA	CYS	J	92	-112.868	65.247	61.578	1	115.64	C
ATOM	8667	CB	CYS	J	92	-111.969	65.745	60.404	1	122.26	C
ATOM	8668	SG	CYS	J	92	-110.368	66.516	60.782	1	144.38	S
ATOM	8669	C	CYS	J	92	-112.41	65.672	63.011	1	97.71	C
ATOM	8670	O	CYS	J	92	-112.831	66.714	63.522	1	87.16	O
ATOM	8671	N	HIS	J	93	-111.588	64.851	63.663	1	82.64	N
ATOM	8672	CA	HIS	J	93	-111.239	65.07	65.073	1	88.44	C
ATOM	8673	CB	HIS	J	93	-112.267	64.34	65.96	1	99.99	C
ATOM	8674	CG	HIS	J	93	-111.809	64.039	67.363	1	102.7	C
ATOM	8675	ND1	HIS	J	93	-111.523	65.017	68.295	1	101.62	N
ATOM	8676	CE1	HIS	J	93	-111.161	64.446	69.432	1	104.62	C
ATOM	8677	NE2	HIS	J	93	-111.221	63.135	69.279	1	104.65	N
ATOM	8678	CD2	HIS	J	93	-111.639	62.855	68.001	1	102.4	C
ATOM	8679	C	HIS	J	93	-109.813	64.641	65.406	1	84.65	C
ATOM	8680	O	HIS	J	93	-109.376	63.579	65.001	1	86.78	O
ATOM	8681	N	GLN	J	94	-109.121	65.47	66.185	1	86.43	N
ATOM	8682	CA	GLN	J	94	-107.712	65.283	66.525	1	90.65	C
ATOM	8683	CB	GLN	J	94	-106.888	66.386	65.826	1	91.24	C
ATOM	8684	CG	GLN	J	94	-105.443	66.57	66.3	1	92.79	C
ATOM	8685	CD	GLN	J	94	-105.318	67.209	67.68	1	92.5	C
ATOM	8686	OE1	GLN	J	94	-104.581	66.717	68.541	1	78.47	O
ATOM	8687	NE2	GLN	J	94	-106.066	68.283	67.907	1	96.75	N
ATOM	8688	C	GLN	J	94	-107.5	65.28	68.059	1	92.29	C
ATOM	8689	O	GLN	J	94	-108.139	66.041	68.786	1	91.72	O
ATOM	8690	N	ASN	J	95	-106.595	64.427	68.534	1	90.03	N
ATOM	8691	CA	ASN	J	95	-106.231	64.378	69.956	1	97.28	C
ATOM	8692	CB	ASN	J	95	-107.223	63.496	70.717	1	98.03	C
ATOM	8693	CG	ASN	J	95	-107.532	62.216	69.98	1	96.38	C
ATOM	8694	OD1	ASN	J	95	-107.872	62.263	68.815	1	105.3	O
ATOM	8695	ND2	ASN	J	95	-107.414	61.077	70.642	1	92.51	N
ATOM	8696	C	ASN	J	95	-104.783	63.908	70.185	1	109.7	C
ATOM	8697	O	ASN	J	95	-104.487	63.152	71.13	1	121.18	O
ATOM	8698	N	ASN	J	96	-103.893	64.367	69.305	1	103.81	N
ATOM	8699	CA	ASN	J	96	-102.452	64.217	69.461	1	100.61	C
ATOM	8700	CB	ASN	J	96	-101.766	64.414	68.088	1	103.83	C
ATOM	8701	CG	ASN	J	96	-100.283	64.016	68.074	1	97.46	C
ATOM	8702	OD1	ASN	J	96	-99.947	62.846	68.141	1	91.66	O
ATOM	8703	ND2	ASN	J	96	-99.403	64.996	67.925	1	96.16	N
ATOM	8704	C	ASN	J	96	-101.94	65.24	70.475	1	104.12	C
ATOM	8705	O	ASN	J	96	-101.11	64.901	71.313	1	104.17	O
ATOM	8706	N	GLU	J	97	-102.473	66.47	70.405	1	112.94	N
ATOM	8707	CA	GLU	J	97	-101.955	67.67	71.102	1	124.27	C
ATOM	8708	CB	GLU	J	97	-101.284	68.614	70.083	1	133.84	C
ATOM	8709	CG	GLU	J	97	-99.754	68.556	70.024	1	140.36	C

ATOM	8710	CD	GLU	J	97	-99.039	69.597	70.895	1	155.7	C
ATOM	8711	OE1	GLU	J	97	-99.676	70.575	71.351	1	167.5	O
ATOM	8712	OE2	GLU	J	97	-97.815	69.442	71.122	1	158.44	O
ATOM	8713	C	GLU	J	97	-103.111	68.411	71.806	1	129.66	C
ATOM	8714	O	GLU	J	97	-104.02	68.909	71.13	1	141.57	O
ATOM	8715	N	ASP	J	98	-103.071	68.49	73.144	1	122.12	N
ATOM	8716	CA	ASP	J	98	-104.156	69.114	73.942	1	112.45	C
ATOM	8717	CB	ASP	J	98	-103.983	68.798	75.429	1	108.44	C
ATOM	8718	CG	ASP	J	98	-104.374	67.378	75.782	1	113.27	C
ATOM	8719	OD1	ASP	J	98	-105.436	66.924	75.29	1	117.96	O
ATOM	8720	OD2	ASP	J	98	-103.642	66.727	76.576	1	99.34	O
ATOM	8721	C	ASP	J	98	-104.192	70.639	73.78	1	116.98	C
ATOM	8722	O	ASP	J	98	-103.161	71.282	73.963	1	125.87	O
ATOM	8723	N	PRO	J	99	-105.346	71.245	73.491	1	119.07	N
ATOM	8724	CA	PRO	J	99	-106.67	70.634	73.515	1	117.47	C
ATOM	8725	CB	PRO	J	99	-107.562	71.847	73.757	1	124.51	C
ATOM	8726	CG	PRO	J	99	-106.881	72.941	72.972	1	127.42	C
ATOM	8727	CD	PRO	J	99	-105.404	72.602	72.913	1	122.81	C
ATOM	8728	C	PRO	J	99	-107.09	70.002	72.179	1	111.97	C
ATOM	8729	O	PRO	J	99	-106.631	70.45	71.122	1	118.5	O
ATOM	8730	N	PRO	J	100	-107.967	68.982	72.218	1	99.91	N
ATOM	8731	CA	PRO	J	100	-108.624	68.475	71.017	1	104.12	C
ATOM	8732	CB	PRO	J	100	-109.562	67.405	71.57	1	106.96	C
ATOM	8733	CG	PRO	J	100	-108.823	66.852	72.73	1	108.22	C
ATOM	8734	CD	PRO	J	100	-108.014	67.988	73.303	1	104.24	C
ATOM	8735	C	PRO	J	100	-109.434	69.511	70.249	1	107.09	C
ATOM	8736	O	PRO	J	100	-109.723	70.59	70.785	1	111.9	O
ATOM	8737	N	ALA	J	101	-109.794	69.169	69.009	1	102.61	N
ATOM	8738	CA	ALA	J	101	-110.595	70.052	68.157	1	99.96	C
ATOM	8739	CB	ALA	J	101	-109.724	71.164	67.595	1	108.18	C
ATOM	8740	C	ALA	J	101	-111.282	69.306	67.024	1	90.67	C
ATOM	8741	O	ALA	J	101	-110.85	68.232	66.634	1	87.15	O
ATOM	8742	N	PHE	J	102	-112.348	69.906	66.504	1	89.56	N
ATOM	8743	CA	PHE	J	102	-113.205	69.299	65.491	1	92.87	C
ATOM	8744	CB	PHE	J	102	-114.662	69.228	65.973	1	99.15	C
ATOM	8745	CG	PHE	J	102	-114.849	68.394	67.203	1	105.31	C
ATOM	8746	CD1	PHE	J	102	-114.949	67.009	67.113	1	106.48	C
ATOM	8747	CE1	PHE	J	102	-115.099	66.23	68.25	1	102.98	C
ATOM	8748	CZ	PHE	J	102	-115.143	66.837	69.493	1	107.43	C
ATOM	8749	CE2	PHE	J	102	-115.041	68.213	69.598	1	109.31	C
ATOM	8750	CD2	PHE	J	102	-114.898	68.986	68.457	1	111.04	C
ATOM	8751	C	PHE	J	102	-113.185	70.152	64.257	1	96.89	C
ATOM	8752	O	PHE	J	102	-112.967	71.358	64.335	1	106.84	O
ATOM	8753	N	GLY	J	103	-113.459	69.529	63.118	1	101.45	N

ATOM	8754	CA	GLY	J	103	-113.654	70.263	61.878	1	100.48	C
ATOM	8755	C	GLY	J	103	-114.943	71.061	61.872	1	99.81	C
ATOM	8756	O	GLY	J	103	-115.866	70.804	62.646	1	85.62	O
ATOM	8757	N	GLY	J	104	-115.004	72.034	60.969	1	115.2	N
ATOM	8758	CA	GLY	J	104	-116.231	72.792	60.722	1	124.96	C
ATOM	8759	C	GLY	J	104	-117.37	71.959	60.148	1	119.01	C
ATOM	8760	O	GLY	J	104	-118.486	72.466	59.978	1	112.2	O
ATOM	8761	N	GLY	J	105	-117.079	70.697	59.82	1	110.75	N
ATOM	8762	CA	GLY	J	105	-118.069	69.765	59.332	1	105.6	C
ATOM	8763	C	GLY	J	105	-118.28	69.904	57.837	1	101.64	C
ATOM	8764	O	GLY	J	105	-117.95	70.925	57.223	1	104.08	O
ATOM	8765	N	THR	J	106	-118.829	68.859	57.245	1	95.25	N
ATOM	8766	CA	THR	J	106	-119.115	68.864	55.83	1	98.51	C
ATOM	8767	CB	THR	J	106	-117.957	68.215	55.032	1	100.97	C
ATOM	8768	OG1	THR	J	106	-116.72	68.878	55.347	1	89.86	O
ATOM	8769	CG2	THR	J	106	-118.206	68.3	53.52	1	102.54	C
ATOM	8770	C	THR	J	106	-120.46	68.159	55.616	1	101.98	C
ATOM	8771	O	THR	J	106	-120.623	66.975	55.942	1	94.33	O
ATOM	8772	N	LYS	J	107	-121.425	68.92	55.102	1	106.41	N
ATOM	8773	CA	LYS	J	107	-122.744	68.403	54.757	1	107.27	C
ATOM	8774	CB	LYS	J	107	-123.749	69.563	54.653	1	123.51	C
ATOM	8775	CG	LYS	J	107	-125.2	69.179	54.349	1	136.75	C
ATOM	8776	CD	LYS	J	107	-125.785	68.134	55.297	1	148.18	C
ATOM	8777	CE	LYS	J	107	-125.667	68.525	56.767	1	154.06	C
ATOM	8778	NZ	LYS	J	107	-126.438	67.616	57.662	1	157.79	N
ATOM	8779	C	LYS	J	107	-122.676	67.632	53.439	1	93.81	C
ATOM	8780	O	LYS	J	107	-122.466	68.202	52.371	1	79.51	O
ATOM	8781	N	LEU	J	108	-122.812	66.322	53.532	1	96.66	N
ATOM	8782	CA	LEU	J	108	-123.041	65.497	52.359	1	106.37	C
ATOM	8783	CB	LEU	J	108	-122.295	64.161	52.451	1	106.81	C
ATOM	8784	CG	LEU	J	108	-122.523	63.156	51.304	1	103.55	C
ATOM	8785	CD1	LEU	J	108	-121.238	62.463	50.901	1	104.69	C
ATOM	8786	CD2	LEU	J	108	-123.554	62.102	51.665	1	110.37	C
ATOM	8787	C	LEU	J	108	-124.525	65.243	52.309	1	112.4	C
ATOM	8788	O	LEU	J	108	-125.113	64.808	53.302	1	117.9	O
ATOM	8789	N	GLU	J	109	-125.135	65.546	51.172	1	116.66	N
ATOM	8790	CA	GLU	J	109	-126.461	65.044	50.869	1	129.08	C
ATOM	8791	CB	GLU	J	109	-127.521	66.145	50.961	1	159.99	C
ATOM	8792	CG	GLU	J	109	-128.077	66.286	52.384	1	189.67	C
ATOM	8793	CD	GLU	J	109	-129.181	67.326	52.535	1	207.26	C
ATOM	8794	OE1	GLU	J	109	-129.218	68.294	51.743	1	224.08	O
ATOM	8795	OE2	GLU	J	109	-130.013	67.184	53.464	1	206.86	O
ATOM	8796	C	GLU	J	109	-126.361	64.422	49.508	1	122.24	C
ATOM	8797	O	GLU	J	109	-125.455	64.744	48.752	1	123.82	O

ATOM	8798	N	ILE	J	110	-127.293	63.527	49.21	1	121.48	N
ATOM	8799	CA	ILE	J	110	-127.109	62.534	48.148	1	124.8	C
ATOM	8800	CB	ILE	J	110	-127.181	61.081	48.713	1	126.66	C
ATOM	8801	CG1	ILE	J	110	-127.329	60.035	47.593	1	132.38	C
ATOM	8802	CD1	ILE	J	110	-126.852	58.654	47.985	1	137.52	C
ATOM	8803	CG2	ILE	J	110	-128.281	60.929	49.755	1	123.92	C
ATOM	8804	C	ILE	J	110	-128.074	62.81	46.995	1	126.08	C
ATOM	8805	O	ILE	J	110	-129.219	63.168	47.221	1	133.67	O
ATOM	8806	N	LYS	J	111	-127.574	62.655	45.768	1	136	N
ATOM	8807	CA	LYS	J	111	-128.297	62.987	44.532	1	140.62	C
ATOM	8808	CB	LYS	J	111	-127.32	63.554	43.478	1	135.49	C
ATOM	8809	CG	LYS	J	111	-127.916	63.83	42.1	1	130.37	C
ATOM	8810	CD	LYS	J	111	-126.971	64.571	41.174	1	127.63	C
ATOM	8811	CE	LYS	J	111	-127.567	64.679	39.775	1	127.03	C
ATOM	8812	NZ	LYS	J	111	-127.119	65.902	39.049	1	128.35	N
ATOM	8813	C	LYS	J	111	-129.041	61.771	43.971	1	151.59	C
ATOM	8814	O	LYS	J	111	-128.718	60.623	44.286	1	148.73	O
ATOM	8815	N	ARG	J	112	-130.049	62.059	43.147	1	168.65	N
ATOM	8816	CA	ARG	J	112	-130.844	61.057	42.443	1	171.59	C
ATOM	8817	CB	ARG	J	112	-131.839	60.44	43.431	1	177.42	C
ATOM	8818	CG	ARG	J	112	-132.692	61.469	44.16	1	178.59	C
ATOM	8819	CD	ARG	J	112	-134.073	60.935	44.452	1	176.45	C
ATOM	8820	NE	ARG	J	112	-134.778	60.639	43.209	1	171.75	N
ATOM	8821	CZ	ARG	J	112	-135.827	59.827	43.095	1	179.05	C
ATOM	8822	NH1	ARG	J	112	-136.349	59.204	44.153	1	174.17	N
ATOM	8823	NH2	ARG	J	112	-136.371	59.636	41.896	1	192.78	N
ATOM	8824	C	ARG	J	112	-131.544	61.715	41.226	1	162.01	C
ATOM	8825	O	ARG	J	112	-131.146	62.805	40.802	1	143.97	O
ATOM	8826	N	THR	J	113	-132.562	61.06	40.662	1	162.68	N
ATOM	8827	CA	THR	J	113	-133.306	61.606	39.52	1	170.47	C
ATOM	8828	CB	THR	J	113	-134.087	60.508	38.755	1	167.06	C
ATOM	8829	OG1	THR	J	113	-135.061	59.909	39.617	1	162.32	O
ATOM	8830	CG2	THR	J	113	-133.149	59.431	38.235	1	164.82	C
ATOM	8831	C	THR	J	113	-134.294	62.678	39.973	1	183.2	C
ATOM	8832	O	THR	J	113	-134.506	62.864	41.177	1	171.65	O
ATOM	8833	N	VAL	J	114	-134.891	63.369	38.997	1	193.13	N
ATOM	8834	CA	VAL	J	114	-135.926	64.378	39.25	1	190.07	C
ATOM	8835	CB	VAL	J	114	-136.103	65.345	38.047	1	188.9	C
ATOM	8836	CG1	VAL	J	114	-137.263	66.311	38.277	1	187.91	C
ATOM	8837	CG2	VAL	J	114	-134.817	66.121	37.784	1	190.85	C
ATOM	8838	C	VAL	J	114	-137.253	63.675	39.563	1	186.17	C
ATOM	8839	O	VAL	J	114	-137.928	63.183	38.653	1	200.21	O
ATOM	8840	N	ALA	J	115	-137.605	63.624	40.85	1	170.39	N
ATOM	8841	CA	ALA	J	115	-138.865	63.035	41.32	1	158.08	C

ATOM	8842	CB	ALA	J	115	-138.606	62.05	42.449	1	161.72	C
ATOM	8843	C	ALA	J	115	-139.834	64.129	41.78	1	153.14	C
ATOM	8844	O	ALA	J	115	-139.468	64.993	42.585	1	121.81	O
ATOM	8845	N	ALA	J	116	-141.066	64.07	41.272	1	155.59	N
ATOM	8846	CA	ALA	J	116	-142.103	65.058	41.58	1	150.7	C
ATOM	8847	CB	ALA	J	116	-143.037	65.223	40.392	1	152.66	C
ATOM	8848	C	ALA	J	116	-142.894	64.662	42.831	1	142.91	C
ATOM	8849	O	ALA	J	116	-143.049	63.47	43.116	1	134.37	O
ATOM	8850	N	PRO	J	117	-143.403	65.659	43.58	1	140.49	N
ATOM	8851	CA	PRO	J	117	-144.097	65.371	44.833	1	142.6	C
ATOM	8852	CB	PRO	J	117	-144.157	66.739	45.518	1	137.95	C
ATOM	8853	CG	PRO	J	117	-144.188	67.703	44.392	1	136.69	C
ATOM	8854	CD	PRO	J	117	-143.315	67.109	43.331	1	137.9	C
ATOM	8855	C	PRO	J	117	-145.504	64.817	44.653	1	142.7	C
ATOM	8856	O	PRO	J	117	-146.136	65.033	43.614	1	131.5	O
ATOM	8857	N	SER	J	118	-145.952	64.081	45.67	1	154.27	N
ATOM	8858	CA	SER	J	118	-147.344	63.676	45.822	1	161.49	C
ATOM	8859	CB	SER	J	118	-147.428	62.244	46.347	1	160.86	C
ATOM	8860	OG	SER	J	118	-146.774	61.345	45.463	1	157.63	O
ATOM	8861	C	SER	J	118	-148.027	64.656	46.785	1	168.78	C
ATOM	8862	O	SER	J	118	-147.6	64.809	47.94	1	165.16	O
ATOM	8863	N	VAL	J	119	-149.085	65.305	46.291	1	165.49	N
ATOM	8864	CA	VAL	J	119	-149.73	66.439	46.958	1	153.28	C
ATOM	8865	CB	VAL	J	119	-150.291	67.435	45.917	1	146.59	C
ATOM	8866	CG1	VAL	J	119	-150.942	68.628	46.607	1	153.05	C
ATOM	8867	CG2	VAL	J	119	-149.198	67.895	44.955	1	138.8	C
ATOM	8868	C	VAL	J	119	-150.863	65.957	47.874	1	153.83	C
ATOM	8869	O	VAL	J	119	-151.651	65.102	47.466	1	153.52	O
ATOM	8870	N	PHE	J	120	-150.943	66.506	49.095	1	162.04	N
ATOM	8871	CA	PHE	J	120	-151.986	66.131	50.085	1	163.08	C
ATOM	8872	CB	PHE	J	120	-151.49	65.027	51.031	1	165.52	C
ATOM	8873	CG	PHE	J	120	-151.267	63.694	50.365	1	166.22	C
ATOM	8874	CD1	PHE	J	120	-152.345	62.867	50.059	1	161.98	C
ATOM	8875	CE1	PHE	J	120	-152.144	61.633	49.461	1	161.7	C
ATOM	8876	CZ	PHE	J	120	-150.857	61.207	49.166	1	164.68	C
ATOM	8877	CE2	PHE	J	120	-149.77	62.014	49.47	1	163.65	C
ATOM	8878	CD2	PHE	J	120	-149.976	63.248	50.069	1	168.38	C
ATOM	8879	C	PHE	J	120	-152.471	67.324	50.927	1	158.71	C
ATOM	8880	O	PHE	J	120	-151.66	68.027	51.545	1	132.2	O
ATOM	8881	N	ILE	J	121	-153.801	67.49	50.983	1	162.6	N
ATOM	8882	CA	ILE	J	121	-154.469	68.669	51.576	1	160.54	C
ATOM	8883	CB	ILE	J	121	-155.37	69.375	50.524	1	161.42	C
ATOM	8884	CG1	ILE	J	121	-155.697	70.817	50.954	1	163.57	C
ATOM	8885	CD1	ILE	J	121	-154.653	71.841	50.549	1	156.39	C

ATOM	8886	CG2	ILE	J	121	-156.643	68.581	50.208	1	159.13	C
ATOM	8887	C	ILE	J	121	-155.267	68.311	52.847	1	153.47	C
ATOM	8888	O	ILE	J	121	-156.129	67.431	52.823	1	153.75	O
ATOM	8889	N	PHE	J	122	-154.976	69.007	53.948	1	147.54	N
ATOM	8890	CA	PHE	J	122	-155.484	68.636	55.269	1	153.06	C
ATOM	8891	CB	PHE	J	122	-154.355	68.117	56.161	1	153.12	C
ATOM	8892	CG	PHE	J	122	-153.667	66.871	55.657	1	153.43	C
ATOM	8893	CD1	PHE	J	122	-152.531	66.946	54.841	1	150.5	C
ATOM	8894	CE1	PHE	J	122	-151.891	65.797	54.403	1	141.79	C
ATOM	8895	CZ	PHE	J	122	-152.365	64.556	54.796	1	143.47	C
ATOM	8896	CE2	PHE	J	122	-153.477	64.467	55.622	1	145.1	C
ATOM	8897	CD2	PHE	J	122	-154.116	65.616	56.051	1	150.42	C
ATOM	8898	C	PHE	J	122	-156.128	69.828	55.989	1	165.13	C
ATOM	8899	O	PHE	J	122	-155.407	70.744	56.417	1	165.95	O
ATOM	8900	N	PRO	J	123	-157.477	69.818	56.142	1	163.29	N
ATOM	8901	CA	PRO	J	123	-158.134	70.805	57.018	1	158.57	C
ATOM	8902	CB	PRO	J	123	-159.626	70.621	56.709	1	151.02	C
ATOM	8903	CG	PRO	J	123	-159.685	69.861	55.428	1	144.76	C
ATOM	8904	CD	PRO	J	123	-158.462	69.014	55.396	1	147.95	C
ATOM	8905	C	PRO	J	123	-157.853	70.573	58.518	1	164.15	C
ATOM	8906	O	PRO	J	123	-157.502	69.453	58.913	1	168.36	O
ATOM	8907	N	PRO	J	124	-158.021	71.619	59.354	1	164.2	N
ATOM	8908	CA	PRO	J	124	-157.73	71.537	60.786	1	165.56	C
ATOM	8909	CB	PRO	J	124	-157.737	72.999	61.224	1	153.89	C
ATOM	8910	CG	PRO	J	124	-158.688	73.659	60.303	1	155.78	C
ATOM	8911	CD	PRO	J	124	-158.686	72.887	59.014	1	153.25	C
ATOM	8912	C	PRO	J	124	-158.8	70.787	61.56	1	173.35	C
ATOM	8913	O	PRO	J	124	-159.794	70.326	60.986	1	170.16	O
ATOM	8914	N	SER	J	125	-158.591	70.687	62.868	1	180.43	N
ATOM	8915	CA	SER	J	125	-159.58	70.105	63.762	1	176.84	C
ATOM	8916	CB	SER	J	125	-158.927	69.628	65.058	1	182.86	C
ATOM	8917	OG	SER	J	125	-159.849	68.915	65.871	1	181.39	O
ATOM	8918	C	SER	J	125	-160.684	71.095	64.102	1	166.62	C
ATOM	8919	O	SER	J	125	-160.598	72.299	63.832	1	154.72	O
ATOM	8920	N	ASP	J	126	-161.713	70.541	64.722	1	160.92	N
ATOM	8921	CA	ASP	J	126	-162.891	71.272	65.155	1	167.41	C
ATOM	8922	CB	ASP	J	126	-164.129	70.414	64.871	1	159.33	C
ATOM	8923	CG	ASP	J	126	-164.097	69.787	63.464	1	155.93	C
ATOM	8924	OD1	ASP	J	126	-163.04	69.252	63.057	1	142.23	O
ATOM	8925	OD2	ASP	J	126	-165.124	69.832	62.758	1	159.42	O
ATOM	8926	C	ASP	J	126	-162.756	71.653	66.642	1	180.7	C
ATOM	8927	O	ASP	J	126	-163.282	72.681	67.084	1	183.95	O
ATOM	8928	N	GLU	J	127	-162.055	70.805	67.399	1	180.78	N
ATOM	8929	CA	GLU	J	127	-161.535	71.124	68.736	1	171.12	C

ATOM	8930	CB	GLU	J	127	-160.714	69.935	69.236	1	160.93	C
ATOM	8931	CG	GLU	J	127	-160.04	70.113	70.591	1	160.08	C
ATOM	8932	CD	GLU	J	127	-158.701	69.405	70.677	1	157.86	C
ATOM	8933	OE1	GLU	J	127	-158.511	68.361	70.01	1	155.26	O
ATOM	8934	OE2	GLU	J	127	-157.834	69.896	71.426	1	158.54	O
ATOM	8935	C	GLU	J	127	-160.644	72.37	68.717	1	175.68	C
ATOM	8936	O	GLU	J	127	-160.815	73.284	69.532	1	174.48	O
ATOM	8937	N	GLN	J	128	-159.673	72.356	67.802	1	176.57	N
ATOM	8938	CA	GLN	J	128	-158.744	73.468	67.579	1	176.78	C
ATOM	8939	CB	GLN	J	128	-157.81	73.161	66.395	1	174.23	C
ATOM	8940	CG	GLN	J	128	-156.78	74.25	66.097	1	169.98	C
ATOM	8941	CD	GLN	J	128	-156.03	74.061	64.784	1	170.42	C
ATOM	8942	OE1	GLN	J	128	-156.399	73.253	63.923	1	154	O
ATOM	8943	NE2	GLN	J	128	-154.973	74.841	64.616	1	174.23	N
ATOM	8944	C	GLN	J	128	-159.493	74.755	67.281	1	186.73	C
ATOM	8945	O	GLN	J	128	-159.256	75.775	67.931	1	191.78	O
ATOM	8946	N	LEU	J	129	-160.392	74.679	66.294	1	185.58	N
ATOM	8947	CA	LEU	J	129	-161.113	75.836	65.725	1	180.16	C
ATOM	8948	CB	LEU	J	129	-162.398	75.358	65.02	1	172.43	C
ATOM	8949	CG	LEU	J	129	-162.256	75.117	63.507	1	168.2	C
ATOM	8950	CD1	LEU	J	129	-163.304	74.155	62.943	1	160.83	C
ATOM	8951	CD2	LEU	J	129	-162.303	76.451	62.777	1	174.82	C
ATOM	8952	C	LEU	J	129	-161.414	77.008	66.683	1	182.61	C
ATOM	8953	O	LEU	J	129	-161.332	78.172	66.27	1	172.04	O
ATOM	8954	N	LYS	J	130	-161.744	76.703	67.942	1	190.01	N
ATOM	8955	CA	LYS	J	130	-161.964	77.737	68.967	1	197.12	C
ATOM	8956	CB	LYS	J	130	-162.817	77.2	70.145	1	200.67	C
ATOM	8957	CG	LYS	J	130	-162.094	76.398	71.226	1	190.78	C
ATOM	8958	CD	LYS	J	130	-163.069	75.811	72.231	1	176.93	C
ATOM	8959	CE	LYS	J	130	-162.357	74.897	73.212	1	172.63	C
ATOM	8960	NZ	LYS	J	130	-163.322	74.15	74.062	1	168.41	N
ATOM	8961	C	LYS	J	130	-160.663	78.376	69.474	1	190.25	C
ATOM	8962	O	LYS	J	130	-160.545	79.602	69.492	1	189.9	O
ATOM	8963	N	SER	J	131	-159.696	77.548	69.869	1	191.77	N
ATOM	8964	CA	SER	J	131	-158.508	78.013	70.595	1	204.29	C
ATOM	8965	CB	SER	J	131	-158.006	76.913	71.544	1	192.22	C
ATOM	8966	OG	SER	J	131	-159.02	76.494	72.446	1	168.72	O
ATOM	8967	C	SER	J	131	-157.382	78.452	69.638	1	217.98	C
ATOM	8968	O	SER	J	131	-157.007	77.702	68.731	1	232.77	O
ATOM	8969	N	GLY	J	132	-156.857	79.665	69.843	1	212.9	N
ATOM	8970	CA	GLY	J	132	-155.752	80.203	69.039	1	199.05	C
ATOM	8971	C	GLY	J	132	-156.13	80.499	67.593	1	202.66	C
ATOM	8972	O	GLY	J	132	-156.717	81.545	67.301	1	218.75	O
ATOM	8973	N	THR	J	133	-155.781	79.576	66.696	1	191.16	N

ATOM	8974	CA	THR	J	133	-156.086	79.675	65.26	1	182.83	C
ATOM	8975	CB	THR	J	133	-154.942	80.367	64.479	1	177	C
ATOM	8976	OG1	THR	J	133	-153.701	79.706	64.751	1	184.82	O
ATOM	8977	CG2	THR	J	133	-154.818	81.855	64.836	1	168.8	C
ATOM	8978	C	THR	J	133	-156.312	78.272	64.67	1	188	C
ATOM	8979	O	THR	J	133	-155.884	77.275	65.258	1	187.85	O
ATOM	8980	N	ALA	J	134	-156.977	78.213	63.513	1	193.36	N
ATOM	8981	CA	ALA	J	134	-157.253	76.957	62.789	1	187.95	C
ATOM	8982	CB	ALA	J	134	-158.679	76.971	62.267	1	175.68	C
ATOM	8983	C	ALA	J	134	-156.255	76.769	61.633	1	196.46	C
ATOM	8984	O	ALA	J	134	-156.128	77.657	60.784	1	198.61	O
ATOM	8985	N	SER	J	135	-155.567	75.618	61.595	1	193.55	N
ATOM	8986	CA	SER	J	135	-154.438	75.38	60.663	1	177.02	C
ATOM	8987	CB	SER	J	135	-153.175	75.026	61.444	1	157.9	C
ATOM	8988	OG	SER	J	135	-152.725	76.146	62.169	1	143.17	O
ATOM	8989	C	SER	J	135	-154.654	74.322	59.564	1	177.1	C
ATOM	8990	O	SER	J	135	-154.762	73.116	59.838	1	160.61	O
ATOM	8991	N	VAL	J	136	-154.683	74.8	58.319	1	176.64	N
ATOM	8992	CA	VAL	J	136	-154.633	73.945	57.133	1	174.77	C
ATOM	8993	CB	VAL	J	136	-154.989	74.733	55.842	1	162.64	C
ATOM	8994	CG1	VAL	J	136	-154.756	73.902	54.578	1	149.86	C
ATOM	8995	CG2	VAL	J	136	-156.428	75.216	55.898	1	166.6	C
ATOM	8996	C	VAL	J	136	-153.212	73.422	57.006	1	188.3	C
ATOM	8997	O	VAL	J	136	-152.26	74.098	57.412	1	202.32	O
ATOM	8998	N	VAL	J	137	-153.073	72.22	56.454	1	183.63	N
ATOM	8999	CA	VAL	J	137	-151.769	71.705	56.046	1	177.63	C
ATOM	9000	CB	VAL	J	137	-151.19	70.687	57.065	1	173.96	C
ATOM	9001	CG1	VAL	J	137	-149.797	70.229	56.641	1	173.89	C
ATOM	9002	CG2	VAL	J	137	-151.145	71.283	58.468	1	164.91	C
ATOM	9003	C	VAL	J	137	-151.893	71.078	54.657	1	170.35	C
ATOM	9004	O	VAL	J	137	-152.593	70.095	54.475	1	152.02	O
ATOM	9005	N	CYS	J	138	-151.277	71.718	53.67	1	178.56	N
ATOM	9006	CA	CYS	J	138	-150.915	71.075	52.404	1	188.14	C
ATOM	9007	CB	CYS	J	138	-150.65	72.122	51.319	1	199.68	C
ATOM	9008	SG	CYS	J	138	-150.357	71.467	49.658	1	199.78	S
ATOM	9009	C	CYS	J	138	-149.668	70.229	52.61	1	179.2	C
ATOM	9010	O	CYS	J	138	-148.992	70.344	53.636	1	172.77	O
ATOM	9011	N	LEU	J	139	-149.36	69.376	51.638	1	173.84	N
ATOM	9012	CA	LEU	J	139	-148.204	68.49	51.762	1	174.6	C
ATOM	9013	CB	LEU	J	139	-148.559	67.283	52.65	1	186.17	C
ATOM	9014	CG	LEU	J	139	-147.417	66.558	53.384	1	189.88	C
ATOM	9015	CD1	LEU	J	139	-147.014	67.278	54.668	1	188.45	C
ATOM	9016	CD2	LEU	J	139	-147.804	65.117	53.69	1	188.31	C
ATOM	9017	C	LEU	J	139	-147.676	68.009	50.41	1	154.62	C

ATOM	9018	O	LEU	J	139	-148.43	67.49	49.599	1	135.18	O
ATOM	9019	N	LEU	J	140	-146.385	68.229	50.173	1	145.53	N
ATOM	9020	CA	LEU	J	140	-145.626	67.463	49.19	1	137.35	C
ATOM	9021	CB	LEU	J	140	-144.433	68.249	48.629	1	130.16	C
ATOM	9022	CG	LEU	J	140	-144.57	69.369	47.592	1	122.24	C
ATOM	9023	CD1	LEU	J	140	-145.23	70.616	48.156	1	118.53	C
ATOM	9024	CD2	LEU	J	140	-143.198	69.727	47.038	1	118.63	C
ATOM	9025	C	LEU	J	140	-145.072	66.246	49.916	1	147.23	C
ATOM	9026	O	LEU	J	140	-144.801	66.29	51.128	1	134.74	O
ATOM	9027	N	ASN	J	141	-144.867	65.172	49.165	1	157.16	N
ATOM	9028	CA	ASN	J	141	-144.241	63.977	49.707	1	163.08	C
ATOM	9029	CB	ASN	J	141	-145.322	62.992	50.198	1	170.83	C
ATOM	9030	CG	ASN	J	141	-145.024	62.413	51.587	1	170.62	C
ATOM	9031	OD1	ASN	J	141	-144.572	63.12	52.496	1	159.29	O
ATOM	9032	ND2	ASN	J	141	-145.315	61.125	51.762	1	164.37	N
ATOM	9033	C	ASN	J	141	-143.333	63.34	48.654	1	155.68	C
ATOM	9034	O	ASN	J	141	-143.796	62.993	47.568	1	146.61	O
ATOM	9035	N	ASN	J	142	-142.039	63.239	48.977	1	155.19	N
ATOM	9036	CA	ASN	J	142	-141.059	62.434	48.221	1	148.75	C
ATOM	9037	CB	ASN	J	142	-141.457	60.945	48.234	1	150	C
ATOM	9038	CG	ASN	J	142	-141.664	60.411	49.653	1	147.33	C
ATOM	9039	OD1	ASN	J	142	-140.713	60.28	50.425	1	148.65	O
ATOM	9040	ND2	ASN	J	142	-142.911	60.117	50.004	1	137.03	N
ATOM	9041	C	ASN	J	142	-140.769	62.964	46.808	1	134.89	C
ATOM	9042	O	ASN	J	142	-141.146	62.363	45.799	1	127.62	O
ATOM	9043	N	PHE	J	143	-140.066	64.094	46.778	1	132.99	N
ATOM	9044	CA	PHE	J	143	-139.737	64.818	45.553	1	129.68	C
ATOM	9045	CB	PHE	J	143	-140.594	66.086	45.442	1	119.7	C
ATOM	9046	CG	PHE	J	143	-140.283	67.121	46.492	1	125.17	C
ATOM	9047	CD1	PHE	J	143	-140.807	67.019	47.777	1	128.74	C
ATOM	9048	CE1	PHE	J	143	-140.489	67.96	48.755	1	128.63	C
ATOM	9049	CZ	PHE	J	143	-139.647	69.019	48.453	1	129.94	C
ATOM	9050	CE2	PHE	J	143	-139.113	69.13	47.176	1	131.19	C
ATOM	9051	CD2	PHE	J	143	-139.431	68.184	46.208	1	131.41	C
ATOM	9052	C	PHE	J	143	-138.245	65.191	45.541	1	146.66	C
ATOM	9053	O	PHE	J	143	-137.672	65.566	46.58	1	151.26	O
ATOM	9054	N	TYR	J	144	-137.621	65.059	44.37	1	152.32	N
ATOM	9055	CA	TYR	J	144	-136.267	65.569	44.108	1	154.16	C
ATOM	9056	CB	TYR	J	144	-135.265	64.41	43.948	1	156.32	C
ATOM	9057	CG	TYR	J	144	-133.837	64.795	44.299	1	156.38	C
ATOM	9058	CD1	TYR	J	144	-133.488	65.119	45.621	1	159.66	C
ATOM	9059	CE1	TYR	J	144	-132.193	65.495	45.954	1	157.22	C
ATOM	9060	CZ	TYR	J	144	-131.216	65.546	44.964	1	150.17	C
ATOM	9061	OH	TYR	J	144	-129.932	65.918	45.311	1	134.85	O

ATOM	9062	CE2	TYR	J	144	-131.536	65.23	43.645	1	142.86	C
ATOM	9063	CD2	TYR	J	144	-132.837	64.859	43.318	1	143.29	C
ATOM	9064	C	TYR	J	144	-136.352	66.444	42.839	1	142.8	C
ATOM	9065	O	TYR	J	144	-136.95	65.993	41.856	1	127.53	O
ATOM	9066	N	PRO	J	145	-135.786	67.666	42.816	1	128.64	N
ATOM	9067	CA	PRO	J	145	-134.894	68.259	43.855	1	123.26	C
ATOM	9068	CB	PRO	J	145	-134.21	69.395	43.077	1	133.29	C
ATOM	9069	CG	PRO	J	145	-134.17	68.918	41.663	1	134.25	C
ATOM	9070	CD	PRO	J	145	-135.451	68.161	41.459	1	128.31	C
ATOM	9071	C	PRO	J	145	-135.525	68.788	45.185	1	114.89	C
ATOM	9072	O	PRO	J	145	-136.444	68.171	45.709	1	109.32	O
ATOM	9073	N	ARG	J	146	-134.996	69.878	45.753	1	113.5	N
ATOM	9074	CA	ARG	J	146	-135.458	70.408	47.046	1	116.97	C
ATOM	9075	CB	ARG	J	146	-134.247	70.632	47.948	1	120.53	C
ATOM	9076	CG	ARG	J	146	-134.602	70.908	49.406	1	129.31	C
ATOM	9077	CD	ARG	J	146	-133.988	72.193	49.949	1	141.19	C
ATOM	9078	NE	ARG	J	146	-132.81	71.9	50.768	1	150.89	N
ATOM	9079	CZ	ARG	J	146	-132.83	71.549	52.058	1	150.12	C
ATOM	9080	NH1	ARG	J	146	-133.976	71.445	52.736	1	150.71	N
ATOM	9081	NH2	ARG	J	146	-131.682	71.296	52.684	1	149.57	N
ATOM	9082	C	ARG	J	146	-136.231	71.725	46.927	1	131.25	C
ATOM	9083	O	ARG	J	146	-136.378	72.463	47.915	1	116.92	O
ATOM	9084	N	GLU	J	147	-136.723	72.023	45.723	1	159.67	N
ATOM	9085	CA	GLU	J	147	-137.287	73.341	45.409	1	173.75	C
ATOM	9086	CB	GLU	J	147	-136.262	74.197	44.65	1	180.93	C
ATOM	9087	CG	GLU	J	147	-134.935	74.435	45.386	1	194.6	C
ATOM	9088	CD	GLU	J	147	-133.904	73.31	45.242	1	198.51	C
ATOM	9089	OE1	GLU	J	147	-134.131	72.359	44.462	1	195.37	O
ATOM	9090	OE2	GLU	J	147	-132.854	73.369	45.926	1	193.51	O
ATOM	9091	C	GLU	J	147	-138.566	73.199	44.582	1	170.03	C
ATOM	9092	O	GLU	J	147	-138.608	72.444	43.615	1	171.05	O
ATOM	9093	N	ALA	J	148	-139.607	73.919	44.983	1	159.44	N
ATOM	9094	CA	ALA	J	148	-140.873	73.95	44.251	1	143.2	C
ATOM	9095	CB	ALA	J	148	-141.591	72.625	44.39	1	125.61	C
ATOM	9096	C	ALA	J	148	-141.731	75.08	44.802	1	145.79	C
ATOM	9097	O	ALA	J	148	-141.726	75.327	46.011	1	166.2	O
ATOM	9098	N	LYS	J	149	-142.453	75.776	43.932	1	137.03	N
ATOM	9099	CA	LYS	J	149	-143.297	76.881	44.376	1	148.59	C
ATOM	9100	CB	LYS	J	149	-143.712	77.752	43.192	1	157.83	C
ATOM	9101	CG	LYS	J	149	-144.434	79.033	43.588	1	160.96	C
ATOM	9102	CD	LYS	J	149	-145.374	79.526	42.502	1	159.33	C
ATOM	9103	CE	LYS	J	149	-146.226	80.663	43.035	1	159.42	C
ATOM	9104	NZ	LYS	J	149	-147.298	81.074	42.09	1	162.72	N
ATOM	9105	C	LYS	J	149	-144.541	76.329	45.067	1	156.18	C

ATOM	9106	O	LYS	J	149	-145.221	75.461	44.514	1	155.29	O
ATOM	9107	N	VAL	J	150	-144.833	76.833	46.268	1	164.37	N
ATOM	9108	CA	VAL	J	150	-146.063	76.467	46.985	1	168.9	C
ATOM	9109	CB	VAL	J	150	-145.812	75.342	48.025	1	153.09	C
ATOM	9110	CG1	VAL	J	150	-146.91	75.28	49.089	1	152.2	C
ATOM	9111	CG2	VAL	J	150	-145.69	73.997	47.319	1	136.23	C
ATOM	9112	C	VAL	J	150	-146.736	77.698	47.607	1	178.56	C
ATOM	9113	O	VAL	J	150	-146.102	78.475	48.33	1	168.33	O
ATOM	9114	N	GLN	J	151	-148.035	77.831	47.332	1	181.85	N
ATOM	9115	CA	GLN	J	151	-148.814	79.014	47.692	1	183.94	C
ATOM	9116	CB	GLN	J	151	-148.731	80.073	46.575	1	191.21	C
ATOM	9117	CG	GLN	J	151	-147.65	81.129	46.783	1	199.81	C
ATOM	9118	CD	GLN	J	151	-147.681	82.246	45.742	1	198.66	C
ATOM	9119	OE1	GLN	J	151	-148.374	82.152	44.727	1	190.28	O
ATOM	9120	NE2	GLN	J	151	-146.937	83.323	46.002	1	196.16	N
ATOM	9121	C	GLN	J	151	-150.271	78.658	47.971	1	176.26	C
ATOM	9122	O	GLN	J	151	-150.703	77.52	47.775	1	158.97	O
ATOM	9123	N	TRP	J	152	-151.001	79.664	48.445	1	185.17	N
ATOM	9124	CA	TRP	J	152	-152.425	79.578	48.739	1	192.01	C
ATOM	9125	CB	TRP	J	152	-152.672	79.967	50.194	1	199.55	C
ATOM	9126	CG	TRP	J	152	-151.873	79.219	51.176	1	192.15	C
ATOM	9127	CD1	TRP	J	152	-150.915	79.723	52.006	1	195.39	C
ATOM	9128	NE1	TRP	J	152	-150.4	78.725	52.79	1	203.17	N
ATOM	9129	CE2	TRP	J	152	-151.018	77.546	52.466	1	188.78	C
ATOM	9130	CD2	TRP	J	152	-151.958	77.824	51.452	1	180.43	C
ATOM	9131	CE3	TRP	J	152	-152.734	76.777	50.94	1	163.08	C
ATOM	9132	CZ3	TRP	J	152	-152.55	75.504	51.451	1	164.32	C
ATOM	9133	CH2	TRP	J	152	-151.604	75.262	52.464	1	167.23	C
ATOM	9134	CZ2	TRP	J	152	-150.836	76.269	52.984	1	176.38	C
ATOM	9135	C	TRP	J	152	-153.207	80.562	47.88	1	189.07	C
ATOM	9136	O	TRP	J	152	-152.709	81.649	47.59	1	180.86	O
ATOM	9137	N	LYS	J	153	-154.437	80.191	47.515	1	188.28	N
ATOM	9138	CA	LYS	J	153	-155.401	81.124	46.918	1	191.31	C
ATOM	9139	CB	LYS	J	153	-155.301	81.089	45.383	1	179.69	C
ATOM	9140	CG	LYS	J	153	-154.099	81.826	44.781	1	172.62	C
ATOM	9141	CD	LYS	J	153	-153.89	83.26	45.289	1	163.35	C
ATOM	9142	CE	LYS	J	153	-153.059	84.095	44.331	1	158.39	C
ATOM	9143	NZ	LYS	J	153	-153.782	84.436	43.077	1	159.53	N
ATOM	9144	C	LYS	J	153	-156.852	80.865	47.411	1	206.41	C
ATOM	9145	O	LYS	J	153	-157.612	80.109	46.788	1	200.74	O
ATOM	9146	N	VAL	J	154	-157.203	81.496	48.544	1	219.19	N
ATOM	9147	CA	VAL	J	154	-158.575	81.474	49.119	1	204.17	C
ATOM	9148	CB	VAL	J	154	-158.604	81.834	50.649	1	190.66	C
ATOM	9149	CG1	VAL	J	154	-157.799	80.82	51.448	1	183.14	C

ATOM	9150	CG2	VAL	J	154	-158.111	83.253	50.957	1	184.9	C
ATOM	9151	C	VAL	J	154	-159.55	82.351	48.303	1	204.27	C
ATOM	9152	O	VAL	J	154	-159.793	83.515	48.64	1	205.22	O
ATOM	9153	N	ASP	J	155	-160.118	81.763	47.242	1	198.29	N
ATOM	9154	CA	ASP	J	155	-160.752	82.513	46.136	1	189.23	C
ATOM	9155	CB	ASP	J	155	-162.112	83.116	46.537	1	177.28	C
ATOM	9156	CG	ASP	J	155	-163.232	82.098	46.559	1	171.75	C
ATOM	9157	OD1	ASP	J	155	-163.396	81.315	45.592	1	146.28	O
ATOM	9158	OD2	ASP	J	155	-163.978	82.115	47.553	1	176.79	O
ATOM	9159	C	ASP	J	155	-159.794	83.606	45.648	1	193.06	C
ATOM	9160	O	ASP	J	155	-160.158	84.78	45.558	1	206.91	O
ATOM	9161	N	ASN	J	156	-158.563	83.195	45.354	1	187.54	N
ATOM	9162	CA	ASN	J	156	-157.465	84.1	44.983	1	192.06	C
ATOM	9163	CB	ASN	J	156	-157.675	84.669	43.563	1	183.31	C
ATOM	9164	CG	ASN	J	156	-157.503	83.618	42.471	1	168.5	C
ATOM	9165	OD1	ASN	J	156	-156.686	83.785	41.563	1	155.71	O
ATOM	9166	ND2	ASN	J	156	-158.271	82.531	42.553	1	158.31	N
ATOM	9167	C	ASN	J	156	-157.146	85.215	46.017	1	203.22	C
ATOM	9168	O	ASN	J	156	-157.413	86.397	45.775	1	218.84	O
ATOM	9169	N	ALA	J	157	-156.585	84.816	47.165	1	204.67	N
ATOM	9170	CA	ALA	J	157	-156.121	85.747	48.218	1	207.84	C
ATOM	9171	CB	ALA	J	157	-157.258	86.09	49.178	1	194.87	C
ATOM	9172	C	ALA	J	157	-154.917	85.164	48.984	1	218.02	C
ATOM	9173	O	ALA	J	157	-155.032	84.115	49.623	1	212.66	O
ATOM	9174	N	LEU	J	158	-153.786	85.874	48.942	1	227.63	N
ATOM	9175	CA	LEU	J	158	-152.479	85.34	49.357	1	220.36	C
ATOM	9176	CB	LEU	J	158	-151.448	85.628	48.263	1	235.28	C
ATOM	9177	CG	LEU	J	158	-150.419	84.521	47.97	1	252.84	C
ATOM	9178	CD1	LEU	J	158	-150.331	84.31	46.464	1	263.33	C
ATOM	9179	CD2	LEU	J	158	-149.038	84.772	48.587	1	249.27	C
ATOM	9180	C	LEU	J	158	-151.983	85.886	50.699	1	200.1	C
ATOM	9181	O	LEU	J	158	-152.404	86.953	51.145	1	187.18	O
ATOM	9182	N	GLN	J	159	-151.059	85.142	51.305	1	188.68	N
ATOM	9183	CA	GLN	J	159	-150.672	85.301	52.711	1	175.33	C
ATOM	9184	CB	GLN	J	159	-150.851	83.968	53.465	1	161.97	C
ATOM	9185	CG	GLN	J	159	-151.869	82.988	52.869	1	160.03	C
ATOM	9186	CD	GLN	J	159	-153.275	83.556	52.731	1	168.33	C
ATOM	9187	OE1	GLN	J	159	-153.659	84.484	53.447	1	176.52	O
ATOM	9188	NE2	GLN	J	159	-154.054	82.995	51.803	1	157.76	N
ATOM	9189	C	GLN	J	159	-149.216	85.776	52.813	1	176.23	C
ATOM	9190	O	GLN	J	159	-148.386	85.414	51.974	1	175.15	O
ATOM	9191	N	SER	J	160	-148.922	86.587	53.835	1	178.17	N
ATOM	9192	CA	SER	J	160	-147.555	87.086	54.112	1	175.89	C
ATOM	9193	CB	SER	J	160	-147.113	88.14	53.09	1	188.87	C

ATOM	9194	OG	SER	J	160	-145.875	88.738	53.476	1	176.14	O
ATOM	9195	C	SER	J	160	-147.42	87.687	55.507	1	159.41	C
ATOM	9196	O	SER	J	160	-148.397	88.14	56.101	1	150.06	O
ATOM	9197	N	GLY	J	161	-146.184	87.715	55.998	1	154.5	N
ATOM	9198	CA	GLY	J	161	-145.904	88.004	57.407	1	157.37	C
ATOM	9199	C	GLY	J	161	-146.383	86.903	58.349	1	157.7	C
ATOM	9200	O	GLY	J	161	-146.498	87.132	59.557	1	129.68	O
ATOM	9201	N	ASN	J	162	-146.617	85.704	57.798	1	174.85	N
ATOM	9202	CA	ASN	J	162	-147.352	84.631	58.484	1	175.52	C
ATOM	9203	CB	ASN	J	162	-148.877	84.899	58.441	1	174.63	C
ATOM	9204	CG	ASN	J	162	-149.492	84.709	57.05	1	175.68	C
ATOM	9205	OD1	ASN	J	162	-148.862	84.974	56.02	1	152.93	O
ATOM	9206	ND2	ASN	J	162	-150.728	84.228	57.019	1	184.4	N
ATOM	9207	C	ASN	J	162	-147.047	83.207	57.982	1	177.44	C
ATOM	9208	O	ASN	J	162	-146.582	82.374	58.764	1	163.36	O
ATOM	9209	N	SER	J	163	-147.27	82.948	56.685	1	188.82	N
ATOM	9210	CA	SER	J	163	-147.455	81.581	56.168	1	186.31	C
ATOM	9211	CB	SER	J	163	-148.234	81.582	54.846	1	179.69	C
ATOM	9212	OG	SER	J	163	-147.546	82.308	53.845	1	182.98	O
ATOM	9213	C	SER	J	163	-146.128	80.862	55.99	1	178.74	C
ATOM	9214	O	SER	J	163	-145.223	81.372	55.319	1	165.16	O
ATOM	9215	N	GLN	J	164	-146.048	79.665	56.576	1	172.26	N
ATOM	9216	CA	GLN	J	164	-144.79	78.955	56.788	1	175.2	C
ATOM	9217	CB	GLN	J	164	-144.472	78.931	58.281	1	171.98	C
ATOM	9218	CG	GLN	J	164	-143.898	80.239	58.807	1	164.1	C
ATOM	9219	CD	GLN	J	164	-143.998	80.363	60.313	1	147.47	C
ATOM	9220	OE1	GLN	J	164	-144.348	81.426	60.829	1	141.05	O
ATOM	9221	NE2	GLN	J	164	-143.687	79.277	61.031	1	130.8	N
ATOM	9222	C	GLN	J	164	-144.827	77.53	56.246	1	172.8	C
ATOM	9223	O	GLN	J	164	-145.857	76.865	56.311	1	175.89	O
ATOM	9224	N	GLU	J	165	-143.68	77.079	55.733	1	170.22	N
ATOM	9225	CA	GLU	J	165	-143.516	75.78	55.063	1	160.93	C
ATOM	9226	CB	GLU	J	165	-143.461	76.01	53.546	1	157.89	C
ATOM	9227	CG	GLU	J	165	-144.796	76.446	52.923	1	154.53	C
ATOM	9228	CD	GLU	J	165	-144.703	77.692	52.038	1	149.59	C
ATOM	9229	OE1	GLU	J	165	-144.477	78.797	52.577	1	142.16	O
ATOM	9230	OE2	GLU	J	165	-144.893	77.58	50.805	1	140.33	O
ATOM	9231	C	GLU	J	165	-142.211	75.153	55.57	1	145.74	C
ATOM	9232	O	GLU	J	165	-141.214	75.863	55.668	1	154.49	O
ATOM	9233	N	SER	J	166	-142.209	73.856	55.906	1	131.57	N
ATOM	9234	CA	SER	J	166	-141.037	73.23	56.577	1	130.67	C
ATOM	9235	CB	SER	J	166	-141.301	72.997	58.077	1	125.14	C
ATOM	9236	OG	SER	J	166	-140.08	72.968	58.813	1	107.22	O
ATOM	9237	C	SER	J	166	-140.54	71.948	55.896	1	131.91	C

ATOM	9238	O	SER	J	166	-141.132	71.498	54.92	1	126.95	O
ATOM	9239	N	VAL	J	167	-139.473	71.362	56.455	1	137.21	N
ATOM	9240	CA	VAL	J	167	-138.488	70.558	55.701	1	135.88	C
ATOM	9241	CB	VAL	J	167	-137.225	71.421	55.432	1	129.34	C
ATOM	9242	CG1	VAL	J	167	-137.491	72.417	54.313	1	126.8	C
ATOM	9243	CG2	VAL	J	167	-136.754	72.158	56.695	1	120.9	C
ATOM	9244	C	VAL	J	167	-138.011	69.236	56.353	1	145.29	C
ATOM	9245	O	VAL	J	167	-137.547	69.23	57.506	1	131.84	O
ATOM	9246	N	THR	J	168	-138.092	68.125	55.606	1	156.73	N
ATOM	9247	CA	THR	J	168	-137.452	66.867	56.039	1	161.34	C
ATOM	9248	CB	THR	J	168	-137.964	65.586	55.32	1	149.75	C
ATOM	9249	OG1	THR	J	168	-137.671	65.628	53.916	1	127.13	O
ATOM	9250	CG2	THR	J	168	-139.445	65.39	55.542	1	150.46	C
ATOM	9251	C	THR	J	168	-135.955	66.963	55.797	1	168.55	C
ATOM	9252	O	THR	J	168	-135.513	66.921	54.647	1	174.79	O
ATOM	9253	N	GLU	J	169	-135.183	67.094	56.875	1	165.69	N
ATOM	9254	CA	GLU	J	169	-133.725	67.014	56.778	1	156.96	C
ATOM	9255	CB	GLU	J	169	-133.04	67.173	58.151	1	156.73	C
ATOM	9256	CG	GLU	J	169	-133.488	68.348	59.025	1	148.34	C
ATOM	9257	CD	GLU	J	169	-133.779	69.617	58.244	1	144.65	C
ATOM	9258	OE1	GLU	J	169	-132.939	70.006	57.404	1	142.46	O
ATOM	9259	OE2	GLU	J	169	-134.846	70.228	58.472	1	136.7	O
ATOM	9260	C	GLU	J	169	-133.46	65.633	56.177	1	146.31	C
ATOM	9261	O	GLU	J	169	-133.728	64.624	56.825	1	147.9	O
ATOM	9262	N	GLN	J	170	-132.953	65.621	54.941	1	130.93	N
ATOM	9263	CA	GLN	J	170	-133.135	64.518	53.962	1	130.13	C
ATOM	9264	CB	GLN	J	170	-131.924	64.425	53.016	1	129.41	C
ATOM	9265	CG	GLN	J	170	-132.148	63.499	51.815	1	126.09	C
ATOM	9266	CD	GLN	J	170	-131.089	63.639	50.741	1	117.57	C
ATOM	9267	OE1	GLN	J	170	-129.942	63.979	51.026	1	114.43	O
ATOM	9268	NE2	GLN	J	170	-131.468	63.37	49.498	1	108.75	N
ATOM	9269	C	GLN	J	170	-133.46	63.11	54.476	1	134.45	C
ATOM	9270	O	GLN	J	170	-132.938	62.667	55.502	1	125.14	O
ATOM	9271	N	ASP	J	171	-134.285	62.398	53.705	1	147.86	N
ATOM	9272	CA	ASP	J	171	-134.716	61.035	54.038	1	153.44	C
ATOM	9273	CB	ASP	J	171	-135.74	60.545	53.009	1	151.59	C
ATOM	9274	CG	ASP	J	171	-136.373	59.236	53.408	1	154.84	C
ATOM	9275	OD1	ASP	J	171	-135.667	58.206	53.37	1	151.94	O
ATOM	9276	OD2	ASP	J	171	-137.571	59.232	53.759	1	164.19	O
ATOM	9277	C	ASP	J	171	-133.563	60.018	54.144	1	153.1	C
ATOM	9278	O	ASP	J	171	-132.73	59.909	53.235	1	151.79	O
ATOM	9279	N	SER	J	172	-133.582	59.227	55.225	1	147.41	N
ATOM	9280	CA	SER	J	172	-132.502	58.273	55.551	1	136.81	C
ATOM	9281	CB	SER	J	172	-132.627	57.803	57.015	1	123.83	C

ATOM	9282	OG	SER	J	172	-132.375	58.852	57.926	1	111.3	O
ATOM	9283	C	SER	J	172	-132.41	57.028	54.651	1	133.94	C
ATOM	9284	O	SER	J	172	-131.608	56.141	54.933	1	139.89	O
ATOM	9285	N	LYS	J	173	-133.197	56.959	53.578	1	124.46	N
ATOM	9286	CA	LYS	J	173	-133.296	55.729	52.779	1	126.19	C
ATOM	9287	CB	LYS	J	173	-133.926	54.609	53.627	1	136.56	C
ATOM	9288	CG	LYS	J	173	-135.142	55.023	54.462	1	142.8	C
ATOM	9289	CD	LYS	J	173	-135.308	54.178	55.724	1	139.33	C
ATOM	9290	CE	LYS	J	173	-135.375	52.682	55.44	1	133.56	C
ATOM	9291	NZ	LYS	J	173	-136.389	52.35	54.403	1	139.01	N
ATOM	9292	C	LYS	J	173	-134.02	55.83	51.42	1	129.5	C
ATOM	9293	O	LYS	J	173	-134	54.856	50.665	1	121.99	O
ATOM	9294	N	ASP	J	174	-134.69	56.956	51.138	1	139.01	N
ATOM	9295	CA	ASP	J	174	-135.162	57.323	49.784	1	143.74	C
ATOM	9296	CB	ASP	J	174	-136.554	57.983	49.832	1	147.27	C
ATOM	9297	CG	ASP	J	174	-137.586	57.165	50.592	1	151.84	C
ATOM	9298	OD1	ASP	J	174	-137.503	55.918	50.591	1	159.84	O
ATOM	9299	OD2	ASP	J	174	-138.494	57.784	51.187	1	146.34	O
ATOM	9300	C	ASP	J	174	-134.216	58.321	49.095	1	142.4	C
ATOM	9301	O	ASP	J	174	-134.021	58.253	47.878	1	124.05	O
ATOM	9302	N	SER	J	175	-133.651	59.247	49.88	1	148.84	N
ATOM	9303	CA	SER	J	175	-132.93	60.424	49.369	1	144.16	C
ATOM	9304	CB	SER	J	175	-131.661	60.013	48.631	1	145.89	C
ATOM	9305	OG	SER	J	175	-130.85	59.282	49.523	1	146	O
ATOM	9306	C	SER	J	175	-133.837	61.338	48.533	1	137.21	C
ATOM	9307	O	SER	J	175	-133.509	61.752	47.413	1	110.85	O
ATOM	9308	N	THR	J	176	-135.001	61.613	49.12	1	141.46	N
ATOM	9309	CA	THR	J	176	-135.926	62.629	48.654	1	140.11	C
ATOM	9310	CB	THR	J	176	-137.169	62.035	47.95	1	141.52	C
ATOM	9311	OG1	THR	J	176	-137.779	61.048	48.792	1	155.77	O
ATOM	9312	CG2	THR	J	176	-136.8	61.407	46.62	1	139.59	C
ATOM	9313	C	THR	J	176	-136.392	63.428	49.861	1	134.74	C
ATOM	9314	O	THR	J	176	-136.201	63.027	51.025	1	112.39	O
ATOM	9315	N	TYR	J	177	-137.008	64.561	49.544	1	140.3	N
ATOM	9316	CA	TYR	J	177	-137.535	65.493	50.521	1	146.12	C
ATOM	9317	CB	TYR	J	177	-137.13	66.919	50.137	1	148.1	C
ATOM	9318	CG	TYR	J	177	-135.728	67.323	50.565	1	148.65	C
ATOM	9319	CD1	TYR	J	177	-134.611	67.083	49.743	1	146.78	C
ATOM	9320	CE1	TYR	J	177	-133.331	67.472	50.139	1	141.86	C
ATOM	9321	CZ	TYR	J	177	-133.16	68.115	51.372	1	144.92	C
ATOM	9322	OH	TYR	J	177	-131.915	68.514	51.8	1	137.46	O
ATOM	9323	CE2	TYR	J	177	-134.252	68.37	52.187	1	145.58	C
ATOM	9324	CD2	TYR	J	177	-135.521	67.979	51.784	1	144.28	C
ATOM	9325	C	TYR	J	177	-139.057	65.382	50.587	1	147.64	C

ATOM	9326	O	TYR	J	177	-139.692	64.818	49.699	1	135.58	O
ATOM	9327	N	SER	J	178	-139.625	65.909	51.666	1	155.86	N
ATOM	9328	CA	SER	J	178	-141.075	66.07	51.806	1	152.9	C
ATOM	9329	CB	SER	J	178	-141.705	64.827	52.436	1	154.61	C
ATOM	9330	OG	SER	J	178	-141.373	63.654	51.702	1	139.37	O
ATOM	9331	C	SER	J	178	-141.345	67.335	52.631	1	152.75	C
ATOM	9332	O	SER	J	178	-140.529	67.708	53.488	1	128.31	O
ATOM	9333	N	LEU	J	179	-142.489	67.975	52.37	1	158.94	N
ATOM	9334	CA	LEU	J	179	-142.714	69.39	52.729	1	158.93	C
ATOM	9335	CB	LEU	J	179	-142.478	70.25	51.481	1	165.06	C
ATOM	9336	CG	LEU	J	179	-142.466	71.782	51.573	1	165.11	C
ATOM	9337	CD1	LEU	J	179	-141.398	72.348	50.643	1	161.59	C
ATOM	9338	CD2	LEU	J	179	-143.827	72.398	51.258	1	163.74	C
ATOM	9339	C	LEU	J	179	-144.098	69.683	53.329	1	145.75	C
ATOM	9340	O	LEU	J	179	-145.093	69.084	52.935	1	125.44	O
ATOM	9341	N	SER	J	180	-144.134	70.638	54.262	1	151.45	N
ATOM	9342	CA	SER	J	180	-145.301	70.912	55.113	1	164.06	C
ATOM	9343	CB	SER	J	180	-144.834	70.952	56.575	1	160.22	C
ATOM	9344	OG	SER	J	180	-143.946	72.03	56.804	1	150.15	O
ATOM	9345	C	SER	J	180	-146.018	72.225	54.728	1	181.94	C
ATOM	9346	O	SER	J	180	-145.696	72.832	53.705	1	204.89	O
ATOM	9347	N	SER	J	181	-146.998	72.646	55.535	1	176.09	N
ATOM	9348	CA	SER	J	181	-147.715	73.915	55.326	1	155.69	C
ATOM	9349	CB	SER	J	181	-148.782	73.745	54.252	1	154.31	C
ATOM	9350	OG	SER	J	181	-148.313	74.156	52.983	1	152.82	O
ATOM	9351	C	SER	J	181	-148.335	74.414	56.633	1	149.46	C
ATOM	9352	O	SER	J	181	-149.462	74.044	56.983	1	110.91	O
ATOM	9353	N	THR	J	182	-147.575	75.27	57.324	1	166.98	N
ATOM	9354	CA	THR	J	182	-147.861	75.754	58.686	1	172.29	C
ATOM	9355	CB	THR	J	182	-146.53	75.967	59.468	1	169.63	C
ATOM	9356	OG1	THR	J	182	-145.609	74.902	59.178	1	164.61	O
ATOM	9357	CG2	THR	J	182	-146.766	76.038	60.974	1	166.7	C
ATOM	9358	C	THR	J	182	-148.686	77.058	58.67	1	171	C
ATOM	9359	O	THR	J	182	-148.331	78.044	59.331	1	155.34	O
ATOM	9360	N	LEU	J	183	-149.807	77.022	57.937	1	176.42	N
ATOM	9361	CA	LEU	J	183	-150.663	78.195	57.677	1	169.93	C
ATOM	9362	CB	LEU	J	183	-151.344	78.056	56.299	1	151.85	C
ATOM	9363	CG	LEU	J	183	-152.317	79.167	55.87	1	138.07	C
ATOM	9364	CD1	LEU	J	183	-151.555	80.464	55.633	1	135.8	C
ATOM	9365	CD2	LEU	J	183	-153.16	78.779	54.653	1	123.43	C
ATOM	9366	C	LEU	J	183	-151.732	78.4	58.773	1	173.23	C
ATOM	9367	O	LEU	J	183	-152.642	77.576	58.922	1	161.06	O
ATOM	9368	N	THR	J	184	-151.628	79.517	59.501	1	170	N
ATOM	9369	CA	THR	J	184	-152.52	79.832	60.621	1	176.26	C

ATOM	9370	CB	THR	J	184	-151.716	80.227	61.88	1	167.93	C
ATOM	9371	OG1	THR	J	184	-150.747	81.228	61.548	1	165.27	O
ATOM	9372	CG2	THR	J	184	-151.012	79.033	62.455	1	164.47	C
ATOM	9373	C	THR	J	184	-153.467	80.989	60.29	1	194.88	C
ATOM	9374	O	THR	J	184	-153.005	82.084	59.961	1	200.1	O
ATOM	9375	N	LEU	J	185	-154.778	80.728	60.372	1	209.76	N
ATOM	9376	CA	LEU	J	185	-155.833	81.762	60.344	1	209.84	C
ATOM	9377	CB	LEU	J	185	-156.728	81.619	59.103	1	197.62	C
ATOM	9378	CG	LEU	J	185	-156.156	81.284	57.721	1	186.59	C
ATOM	9379	CD1	LEU	J	185	-157.284	81.331	56.698	1	171.5	C
ATOM	9380	CD2	LEU	J	185	-155.016	82.214	57.323	1	188.1	C
ATOM	9381	C	LEU	J	185	-156.718	81.622	61.594	1	224.5	C
ATOM	9382	O	LEU	J	185	-157.012	80.497	62.008	1	247.62	O
ATOM	9383	N	SER	J	186	-157.176	82.743	62.164	1	225.85	N
ATOM	9384	CA	SER	J	186	-158.037	82.716	63.372	1	216.73	C
ATOM	9385	CB	SER	J	186	-158.165	84.113	64.02	1	216.25	C
ATOM	9386	OG	SER	J	186	-159.332	84.805	63.596	1	210.95	O
ATOM	9387	C	SER	J	186	-159.42	82.103	63.081	1	204.94	C
ATOM	9388	O	SER	J	186	-159.685	81.661	61.964	1	182.23	O
ATOM	9389	N	LYS	J	187	-160.292	82.067	64.085	1	198.02	N
ATOM	9390	CA	LYS	J	187	-161.586	81.396	63.952	1	186.7	C
ATOM	9391	CB	LYS	J	187	-162.333	81.394	65.291	1	194.01	C
ATOM	9392	CG	LYS	J	187	-163.612	80.572	65.276	1	196.92	C
ATOM	9393	CD	LYS	J	187	-164.494	80.833	66.489	1	195.46	C
ATOM	9394	CE	LYS	J	187	-165.964	80.627	66.149	1	191.9	C
ATOM	9395	NZ	LYS	J	187	-166.232	79.347	65.43	1	192.13	N
ATOM	9396	C	LYS	J	187	-162.449	81.992	62.823	1	172.1	C
ATOM	9397	O	LYS	J	187	-162.631	81.341	61.799	1	168.88	O
ATOM	9398	N	ALA	J	188	-162.944	83.221	62.993	1	159.78	N
ATOM	9399	CA	ALA	J	188	-163.771	83.887	61.967	1	155.34	C
ATOM	9400	CB	ALA	J	188	-164.526	85.061	62.567	1	153.08	C
ATOM	9401	C	ALA	J	188	-162.965	84.362	60.757	1	166.61	C
ATOM	9402	O	ALA	J	188	-163.554	84.809	59.762	1	141.12	O
ATOM	9403	N	ASP	J	189	-161.63	84.311	60.879	1	188.95	N
ATOM	9404	CA	ASP	J	189	-160.689	84.497	59.762	1	195.52	C
ATOM	9405	CB	ASP	J	189	-159.37	85.11	60.26	1	188.32	C
ATOM	9406	CG	ASP	J	189	-159.542	86.522	60.806	1	180.59	C
ATOM	9407	OD1	ASP	J	189	-160.13	87.369	60.098	1	173.23	O
ATOM	9408	OD2	ASP	J	189	-159.075	86.791	61.935	1	167.2	O
ATOM	9409	C	ASP	J	189	-160.389	83.204	58.98	1	204.82	C
ATOM	9410	O	ASP	J	189	-160.05	83.277	57.799	1	204.88	O
ATOM	9411	N	TYR	J	190	-160.481	82.038	59.629	1	209.24	N
ATOM	9412	CA	TYR	J	190	-160.461	80.752	58.918	1	212.65	C
ATOM	9413	CB	TYR	J	190	-159.985	79.581	59.802	1	220.12	C

ATOM	9414	CG	TYR	J	190	-160.036	78.225	59.098	1	222.4	C
ATOM	9415	CD1	TYR	J	190	-159.466	78.047	57.829	1	217.41	C
ATOM	9416	CE1	TYR	J	190	-159.516	76.821	57.181	1	198.04	C
ATOM	9417	CZ	TYR	J	190	-160.132	75.748	57.797	1	186.94	C
ATOM	9418	OH	TYR	J	190	-160.171	74.551	57.132	1	165.42	O
ATOM	9419	CE2	TYR	J	190	-160.708	75.893	59.053	1	193.06	C
ATOM	9420	CD2	TYR	J	190	-160.659	77.127	59.692	1	202.85	C
ATOM	9421	C	TYR	J	190	-161.871	80.491	58.412	1	201.97	C
ATOM	9422	O	TYR	J	190	-162.097	80.375	57.197	1	185.39	O
ATOM	9423	N	GLU	J	191	-162.817	80.419	59.351	1	187.5	N
ATOM	9424	CA	GLU	J	191	-164.227	80.3	59.013	1	174.99	C
ATOM	9425	CB	GLU	J	191	-165.091	79.933	60.238	1	163.65	C
ATOM	9426	CG	GLU	J	191	-164.842	78.516	60.762	1	162.24	C
ATOM	9427	CD	GLU	J	191	-165.733	78.107	61.939	1	158.38	C
ATOM	9428	OE1	GLU	J	191	-166.25	78.993	62.658	1	147.58	O
ATOM	9429	OE2	GLU	J	191	-165.905	76.884	62.165	1	146.55	O
ATOM	9430	C	GLU	J	191	-164.684	81.599	58.345	1	175.41	C
ATOM	9431	O	GLU	J	191	-165.145	82.536	59.008	1	161.36	O
ATOM	9432	N	LYS	J	192	-164.481	81.644	57.025	1	172.17	N
ATOM	9433	CA	LYS	J	192	-165.085	82.656	56.16	1	173.79	C
ATOM	9434	CB	LYS	J	192	-164.484	84.053	56.386	1	168.79	C
ATOM	9435	CG	LYS	J	192	-162.97	84.127	56.432	1	164.3	C
ATOM	9436	CD	LYS	J	192	-162.508	85.561	56.641	1	158	C
ATOM	9437	CE	LYS	J	192	-161.097	85.793	56.123	1	148.17	C
ATOM	9438	NZ	LYS	J	192	-160.296	86.687	57.003	1	146.99	N
ATOM	9439	C	LYS	J	192	-165.067	82.264	54.669	1	174.55	C
ATOM	9440	O	LYS	J	192	-166.127	82.202	54.042	1	171.3	O
ATOM	9441	N	HIS	J	193	-163.887	81.977	54.116	1	174	N
ATOM	9442	CA	HIS	J	193	-163.749	81.68	52.677	1	175.85	C
ATOM	9443	CB	HIS	J	193	-162.313	81.922	52.19	1	187.76	C
ATOM	9444	CG	HIS	J	193	-162.012	83.351	51.846	1	192.65	C
ATOM	9445	ND1	HIS	J	193	-161.541	84.26	52.771	1	190.96	N
ATOM	9446	CE1	HIS	J	193	-161.344	85.424	52.18	1	187.45	C
ATOM	9447	NE2	HIS	J	193	-161.664	85.303	50.903	1	190.16	N
ATOM	9448	CD2	HIS	J	193	-162.084	84.016	50.668	1	188.37	C
ATOM	9449	C	HIS	J	193	-164.168	80.241	52.379	1	168.57	C
ATOM	9450	O	HIS	J	193	-164.33	79.437	53.302	1	169.38	O
ATOM	9451	N	LYS	J	194	-164.326	79.929	51.089	1	166.21	N
ATOM	9452	CA	LYS	J	194	-164.844	78.618	50.636	1	175.23	C
ATOM	9453	CB	LYS	J	194	-165.986	78.777	49.594	1	180.11	C
ATOM	9454	CG	LYS	J	194	-165.651	79.469	48.265	1	179.01	C
ATOM	9455	CD	LYS	J	194	-166.688	80.496	47.813	1	173.23	C
ATOM	9456	CE	LYS	J	194	-166.794	81.669	48.785	1	170.02	C
ATOM	9457	NZ	LYS	J	194	-167.014	82.985	48.122	1	164.79	N

ATOM	9458	C	LYS	J	194	-163.753	77.637	50.156	1	180.01	C
ATOM	9459	O	LYS	J	194	-163.554	76.599	50.792	1	174.32	O
ATOM	9460	N	VAL	J	195	-163.03	77.982	49.083	1	185.06	N
ATOM	9461	CA	VAL	J	195	-162.068	77.082	48.428	1	173.51	C
ATOM	9462	CB	VAL	J	195	-162.129	77.187	46.878	1	167.3	C
ATOM	9463	CG1	VAL	J	195	-161.031	76.353	46.217	1	162.49	C
ATOM	9464	CG2	VAL	J	195	-163.493	76.757	46.357	1	162.72	C
ATOM	9465	C	VAL	J	195	-160.663	77.45	48.899	1	171.43	C
ATOM	9466	O	VAL	J	195	-160.187	78.551	48.617	1	166.58	O
ATOM	9467	N	TYR	J	196	-160.017	76.52	49.604	1	170.18	N
ATOM	9468	CA	TYR	J	196	-158.639	76.671	50.089	1	167.45	C
ATOM	9469	CB	TYR	J	196	-158.571	76.326	51.575	1	149.47	C
ATOM	9470	CG	TYR	J	196	-159.041	77.408	52.524	1	143.72	C
ATOM	9471	CD1	TYR	J	196	-160.368	77.845	52.531	1	141.21	C
ATOM	9472	CE1	TYR	J	196	-160.792	78.829	53.42	1	137.7	C
ATOM	9473	CZ	TYR	J	196	-159.889	79.374	54.327	1	131.72	C
ATOM	9474	OH	TYR	J	196	-160.283	80.339	55.217	1	135.35	O
ATOM	9475	CE2	TYR	J	196	-158.581	78.948	54.346	1	129.81	C
ATOM	9476	CD2	TYR	J	196	-158.163	77.972	53.453	1	138.68	C
ATOM	9477	C	TYR	J	196	-157.714	75.74	49.288	1	184.04	C
ATOM	9478	O	TYR	J	196	-157.522	74.576	49.656	1	182.82	O
ATOM	9479	N	ALA	J	197	-157.149	76.267	48.199	1	200.38	N
ATOM	9480	CA	ALA	J	197	-156.351	75.484	47.24	1	201.14	C
ATOM	9481	CB	ALA	J	197	-156.696	75.916	45.822	1	202.61	C
ATOM	9482	C	ALA	J	197	-154.838	75.603	47.476	1	203.02	C
ATOM	9483	O	ALA	J	197	-154.362	76.611	48.001	1	212.6	O
ATOM	9484	N	CYS	J	198	-154.095	74.571	47.071	1	188.35	N
ATOM	9485	CA	CYS	J	198	-152.643	74.519	47.24	1	189.81	C
ATOM	9486	CB	CYS	J	198	-152.244	73.219	47.96	1	210.72	C
ATOM	9487	SG	CYS	J	198	-150.505	73.133	48.479	1	254.34	S
ATOM	9488	C	CYS	J	198	-151.953	74.625	45.877	1	178.73	C
ATOM	9489	O	CYS	J	198	-151.942	73.665	45.108	1	162.97	O
ATOM	9490	N	GLU	J	199	-151.397	75.801	45.575	1	187.96	N
ATOM	9491	CA	GLU	J	199	-150.599	75.997	44.357	1	192.83	C
ATOM	9492	CB	GLU	J	199	-150.12	77.447	44.223	1	202.3	C
ATOM	9493	CG	GLU	J	199	-151.176	78.47	43.849	1	207.54	C
ATOM	9494	CD	GLU	J	199	-150.567	79.835	43.563	1	209.69	C
ATOM	9495	OE1	GLU	J	199	-149.715	79.932	42.653	1	201.93	O
ATOM	9496	OE2	GLU	J	199	-150.938	80.813	44.243	1	216.47	O
ATOM	9497	C	GLU	J	199	-149.365	75.122	44.425	1	186.94	C
ATOM	9498	O	GLU	J	199	-148.604	75.231	45.381	1	169.32	O
ATOM	9499	N	VAL	J	200	-149.172	74.257	43.43	1	193.15	N
ATOM	9500	CA	VAL	J	200	-147.977	73.408	43.365	1	209.07	C
ATOM	9501	CB	VAL	J	200	-148.289	71.905	43.572	1	213.6	C

ATOM	9502	CG1	VAL	J	200	-147.031	71.155	44	1	211.51	C
ATOM	9503	CG2	VAL	J	200	-149.412	71.71	44.587	1	212.5	C
ATOM	9504	C	VAL	J	200	-147.298	73.576	42.015	1	208.3	C
ATOM	9505	O	VAL	J	200	-147.936	73.428	40.979	1	203.57	O
ATOM	9506	N	THR	J	201	-146.009	73.908	42.039	1	209.13	N
ATOM	9507	CA	THR	J	201	-145.176	73.934	40.836	1	195.8	C
ATOM	9508	CB	THR	J	201	-145.1	75.354	40.176	1	202.86	C
ATOM	9509	OG1	THR	J	201	-143.818	75.957	40.4	1	217.41	O
ATOM	9510	CG2	THR	J	201	-146.222	76.321	40.672	1	189.96	C
ATOM	9511	C	THR	J	201	-143.786	73.396	41.234	1	168.45	C
ATOM	9512	O	THR	J	201	-143.055	74.038	41.991	1	152.04	O
ATOM	9513	N	HIS	J	202	-143.458	72.197	40.762	1	148.34	N
ATOM	9514	CA	HIS	J	202	-142.143	71.592	40.988	1	153.61	C
ATOM	9515	CB	HIS	J	202	-142.286	70.319	41.819	1	162.85	C
ATOM	9516	CG	HIS	J	202	-140.996	69.588	42.038	1	159.06	C
ATOM	9517	ND1	HIS	J	202	-140.562	68.601	41.184	1	153.45	N
ATOM	9518	CE1	HIS	J	202	-139.404	68.131	41.609	1	151.1	C
ATOM	9519	NE2	HIS	J	202	-139.065	68.785	42.704	1	149.32	N
ATOM	9520	CD2	HIS	J	202	-140.042	69.706	42.993	1	153.62	C
ATOM	9521	C	HIS	J	202	-141.48	71.263	39.662	1	148.18	C
ATOM	9522	O	HIS	J	202	-142.161	71.083	38.669	1	145.51	O
ATOM	9523	N	GLN	J	203	-140.149	71.183	39.67	1	145.72	N
ATOM	9524	CA	GLN	J	203	-139.336	70.84	38.487	1	156.54	C
ATOM	9525	CB	GLN	J	203	-137.909	70.422	38.909	1	162.01	C
ATOM	9526	CG	GLN	J	203	-136.924	71.563	39.162	1	157.94	C
ATOM	9527	CD	GLN	J	203	-137.083	72.223	40.526	1	147.54	C
ATOM	9528	OE1	GLN	J	203	-138.207	72.499	40.978	1	123.19	O
ATOM	9529	NE2	GLN	J	203	-135.954	72.491	41.185	1	136.07	N
ATOM	9530	C	GLN	J	203	-139.953	69.752	37.59	1	159	C
ATOM	9531	O	GLN	J	203	-140.414	70.053	36.489	1	161.54	O
ATOM	9532	N	GLY	J	204	-139.936	68.501	38.058	1	159.84	N
ATOM	9533	CA	GLY	J	204	-140.612	67.372	37.408	1	165.23	C
ATOM	9534	C	GLY	J	204	-142.039	67.624	36.954	1	182.55	C
ATOM	9535	O	GLY	J	204	-142.478	67.053	35.952	1	192.18	O
ATOM	9536	N	LEU	J	205	-142.76	68.47	37.692	1	198.15	N
ATOM	9537	CA	LEU	J	205	-144.061	68.986	37.252	1	207.91	C
ATOM	9538	CB	LEU	J	205	-144.915	69.428	38.452	1	197.68	C
ATOM	9539	CG	LEU	J	205	-145.047	68.505	39.663	1	184.98	C
ATOM	9540	CD1	LEU	J	205	-145.743	69.234	40.805	1	186.97	C
ATOM	9541	CD2	LEU	J	205	-145.802	67.245	39.272	1	179.94	C
ATOM	9542	C	LEU	J	205	-143.837	70.165	36.285	1	220	C
ATOM	9543	O	LEU	J	205	-144.061	71.33	36.645	1	224.97	O
ATOM	9544	N	SER	J	206	-143.41	69.853	35.055	1	215.59	N
ATOM	9545	CA	SER	J	206	-143.017	70.877	34.057	1	204.86	C

ATOM	9546	CB	SER	J	206	-142.412	70.229	32.801	1	184.51	C
ATOM	9547	OG	SER	J	206	-143.064	69.019	32.476	1	177.08	O
ATOM	9548	C	SER	J	206	-144.136	71.875	33.687	1	215.29	C
ATOM	9549	O	SER	J	206	-143.872	72.9	33.049	1	238.18	O
ATOM	9550	N	SER	J	207	-145.373	71.549	34.061	1	205.04	N
ATOM	9551	CA	SER	J	207	-146.412	72.547	34.325	1	199.44	C
ATOM	9552	CB	SER	J	207	-147.465	72.562	33.213	1	193.83	C
ATOM	9553	OG	SER	J	207	-147.909	71.255	32.904	1	189.8	O
ATOM	9554	C	SER	J	207	-147.038	72.222	35.694	1	196.99	C
ATOM	9555	O	SER	J	207	-147.087	71.05	36.086	1	205.14	O
ATOM	9556	N	PRO	J	208	-147.512	73.25	36.43	1	182.82	N
ATOM	9557	CA	PRO	J	208	-147.984	73.049	37.805	1	173.08	C
ATOM	9558	CB	PRO	J	208	-148.25	74.482	38.286	1	165.72	C
ATOM	9559	CG	PRO	J	208	-148.52	75.263	37.058	1	165.53	C
ATOM	9560	CD	PRO	J	208	-147.631	74.663	36.016	1	176.68	C
ATOM	9561	C	PRO	J	208	-149.247	72.179	37.953	1	173.3	C
ATOM	9562	O	PRO	J	208	-149.931	71.89	36.968	1	158.65	O
ATOM	9563	N	VAL	J	209	-149.507	71.736	39.186	1	180.13	N
ATOM	9564	CA	VAL	J	209	-150.773	71.087	39.567	1	183.19	C
ATOM	9565	CB	VAL	J	209	-150.633	69.545	39.731	1	175.24	C
ATOM	9566	CG1	VAL	J	209	-149.969	68.931	38.5	1	166.81	C
ATOM	9567	CG2	VAL	J	209	-149.881	69.171	41.007	1	165.95	C
ATOM	9568	C	VAL	J	209	-151.303	71.743	40.853	1	193.13	C
ATOM	9569	O	VAL	J	209	-150.544	72.371	41.59	1	193.28	O
ATOM	9570	N	THR	J	210	-152.605	71.615	41.105	1	195.44	N
ATOM	9571	CA	THR	J	210	-153.243	72.25	42.268	1	191.58	C
ATOM	9572	CB	THR	J	210	-153.779	73.663	41.906	1	196.91	C
ATOM	9573	OG1	THR	J	210	-152.681	74.548	41.637	1	194.87	O
ATOM	9574	CG2	THR	J	210	-154.613	74.263	43.034	1	199.81	C
ATOM	9575	C	THR	J	210	-154.365	71.355	42.807	1	184.15	C
ATOM	9576	O	THR	J	210	-155.155	70.821	42.025	1	183.25	O
ATOM	9577	N	LYS	J	211	-154.407	71.191	44.136	1	185.5	N
ATOM	9578	CA	LYS	J	211	-155.448	70.411	44.839	1	186.4	C
ATOM	9579	CB	LYS	J	211	-154.894	69.062	45.319	1	182.31	C
ATOM	9580	CG	LYS	J	211	-154.592	68.109	44.169	1	185.87	C
ATOM	9581	CD	LYS	J	211	-153.825	66.864	44.585	1	183.61	C
ATOM	9582	CE	LYS	J	211	-153	66.331	43.414	1	186.4	C
ATOM	9583	NZ	LYS	J	211	-152.319	65.035	43.692	1	185.25	N
ATOM	9584	C	LYS	J	211	-156.007	71.22	46.014	1	189.82	C
ATOM	9585	O	LYS	J	211	-155.246	71.902	46.714	1	181.04	O
ATOM	9586	N	SER	J	212	-157.327	71.122	46.224	1	197.13	N
ATOM	9587	CA	SER	J	212	-158.076	72.012	47.137	1	196.04	C
ATOM	9588	CB	SER	J	212	-158.769	73.116	46.322	1	190.29	C
ATOM	9589	OG	SER	J	212	-159.779	72.59	45.474	1	187.51	O

ATOM	9590	C	SER	J	212	-159.119	71.299	48.023	1	189.73	C
ATOM	9591	O	SER	J	212	-159.53	70.167	47.737	1	181.31	O
ATOM	9592	N	PHE	J	213	-159.523	71.987	49.098	1	178.92	N
ATOM	9593	CA	PHE	J	213	-160.606	71.551	49.995	1	169.98	C
ATOM	9594	CB	PHE	J	213	-160.04	71.069	51.351	1	166.29	C
ATOM	9595	CG	PHE	J	213	-159.751	72.174	52.352	1	158.45	C
ATOM	9596	CD1	PHE	J	213	-160.741	72.624	53.224	1	155.87	C
ATOM	9597	CE1	PHE	J	213	-160.482	73.628	54.146	1	148.08	C
ATOM	9598	CZ	PHE	J	213	-159.221	74.184	54.218	1	147.03	C
ATOM	9599	CE2	PHE	J	213	-158.222	73.734	53.373	1	152.62	C
ATOM	9600	CD2	PHE	J	213	-158.488	72.739	52.445	1	157.46	C
ATOM	9601	C	PHE	J	213	-161.639	72.678	50.184	1	177.18	C
ATOM	9602	O	PHE	J	213	-161.266	73.852	50.285	1	201.04	O
ATOM	9603	N	ASN	J	214	-162.926	72.315	50.236	1	171.92	N
ATOM	9604	CA	ASN	J	214	-164.023	73.275	50.488	1	166.3	C
ATOM	9605	CB	ASN	J	214	-165.243	72.987	49.593	1	164.52	C
ATOM	9606	CG	ASN	J	214	-165.377	73.974	48.448	1	158.78	C
ATOM	9607	OD1	ASN	J	214	-165.442	75.192	48.657	1	146.62	O
ATOM	9608	ND2	ASN	J	214	-165.438	73.451	47.229	1	160.32	N
ATOM	9609	C	ASN	J	214	-164.445	73.305	51.964	1	159.47	C
ATOM	9610	O	ASN	J	214	-165.003	72.327	52.486	1	145.16	O
ATOM	9611	N	ARG	J	215	-164.217	74.45	52.608	1	154.03	N
ATOM	9612	CA	ARG	J	215	-164.312	74.561	54.063	1	154.57	C
ATOM	9613	CB	ARG	J	215	-163.791	75.932	54.532	1	150.28	C
ATOM	9614	CG	ARG	J	215	-162.988	75.887	55.821	1	159.33	C
ATOM	9615	CD	ARG	J	215	-163.242	77.103	56.696	1	174.81	C
ATOM	9616	NE	ARG	J	215	-164.485	76.965	57.467	1	181.31	N
ATOM	9617	CZ	ARG	J	215	-165.656	77.553	57.196	1	181.79	C
ATOM	9618	NH1	ARG	J	215	-165.812	78.381	56.156	1	183.87	N
ATOM	9619	NH2	ARG	J	215	-166.693	77.326	57.999	1	175.54	N
ATOM	9620	C	ARG	J	215	-165.753	74.296	54.554	1	161.83	C
ATOM	9621	O	ARG	J	215	-166.631	75.151	54.424	1	160.97	O
ATOM	9622	N	GLY	J	216	-165.98	73.082	55.069	1	170.72	N
ATOM	9623	CA	GLY	J	216	-167.267	72.656	55.648	1	162.89	C
ATOM	9624	C	GLY	J	216	-167.116	72.363	57.13	1	158.77	C
ATOM	9625	O	GLY	J	216	-166.522	71.348	57.506	1	147.38	O
ATOM	9626	N	GLU	J	217	-167.68	73.253	57.952	1	162.1	N
ATOM	9627	CA	GLU	J	217	-167.427	73.347	59.405	1	169.21	C
ATOM	9628	CB	GLU	J	217	-167.718	72.031	60.156	1	179.48	C
ATOM	9629	CG	GLU	J	217	-169.069	71.389	59.833	1	181.25	C
ATOM	9630	CD	GLU	J	217	-169.561	70.426	60.913	1	173.85	C
ATOM	9631	OE1	GLU	J	217	-169.66	70.84	62.091	1	161.41	O
ATOM	9632	OE2	GLU	J	217	-169.868	69.256	60.585	1	163.56	O
ATOM	9633	C	GLU	J	217	-166.004	73.835	59.699	1	160.73	C

ATOM	9634	O	GLU	J	217	-165.75	75.042	59.779	1	132.64	O
TER	9635		GLU	J	217						
ATOM	9636	N	GLN	R	1	-97.581	104.134	31.464	1	164.33	N
ATOM	9637	CA	GLN	R	1	-96.78	104.193	32.732	1	167.2	C
ATOM	9638	CB	GLN	R	1	-97.321	105.278	33.691	1	158.16	C
ATOM	9639	CG	GLN	R	1	-96.269	105.85	34.645	1	155.37	C
ATOM	9640	CD	GLN	R	1	-96.49	107.317	34.997	1	145.61	C
ATOM	9641	OE1	GLN	R	1	-95.562	108.142	34.926	1	126.48	O
ATOM	9642	NE2	GLN	R	1	-97.718	107.649	35.379	1	142.53	N
ATOM	9643	C	GLN	R	1	-96.749	102.806	33.405	1	176.01	C
ATOM	9644	O	GLN	R	1	-97.801	102.255	33.761	1	165.47	O
ATOM	9645	N	VAL	R	2	-95.537	102.269	33.584	1	182.98	N
ATOM	9646	CA	VAL	R	2	-95.314	100.843	33.896	1	180.98	C
ATOM	9647	CB	VAL	R	2	-94.146	100.294	33.043	1	170.6	C
ATOM	9648	CG1	VAL	R	2	-94.042	98.771	33.158	1	166.63	C
ATOM	9649	CG2	VAL	R	2	-94.282	100.731	31.588	1	170.78	C
ATOM	9650	C	VAL	R	2	-95.046	100.589	35.399	1	183.48	C
ATOM	9651	O	VAL	R	2	-94.147	101.2	35.986	1	167.67	O
ATOM	9652	N	GLN	R	3	-95.813	99.657	35.987	1	179.48	N
ATOM	9653	CA	GLN	R	3	-95.871	99.417	37.453	1	161.25	C
ATOM	9654	CB	GLN	R	3	-97.227	99.878	38.048	1	157.34	C
ATOM	9655	CG	GLN	R	3	-98.172	100.656	37.138	1	150.64	C
ATOM	9656	CD	GLN	R	3	-99.574	100.732	37.717	1	147.37	C
ATOM	9657	OE1	GLN	R	3	-99.999	101.782	38.196	1	153.85	O
ATOM	9658	NE2	GLN	R	3	-100.291	99.608	37.697	1	141.15	N
ATOM	9659	C	GLN	R	3	-95.669	97.916	37.756	1	145.65	C
ATOM	9660	O	GLN	R	3	-95.215	97.186	36.88	1	157.13	O
ATOM	9661	N	LEU	R	4	-95.977	97.485	38.991	1	129.11	N
ATOM	9662	CA	LEU	R	4	-96.125	96.057	39.35	1	126.08	C
ATOM	9663	CB	LEU	R	4	-94.757	95.439	39.699	1	124.67	C
ATOM	9664	CG	LEU	R	4	-94.052	94.611	38.608	1	126.74	C
ATOM	9665	CD1	LEU	R	4	-92.559	94.441	38.879	1	116.74	C
ATOM	9666	CD2	LEU	R	4	-94.72	93.253	38.439	1	125.76	C
ATOM	9667	C	LEU	R	4	-97.106	95.87	40.524	1	134.95	C
ATOM	9668	O	LEU	R	4	-96.698	95.938	41.681	1	143.5	O
ATOM	9669	N	LYS	R	5	-98.387	95.625	40.224	1	140.46	N
ATOM	9670	CA	LYS	R	5	-99.468	95.569	41.245	1	143.45	C
ATOM	9671	CB	LYS	R	5	-100.761	96.149	40.649	1	154.62	C
ATOM	9672	CG	LYS	R	5	-101.763	96.725	41.654	1	163.53	C
ATOM	9673	CD	LYS	R	5	-101.702	98.25	41.765	1	163.94	C
ATOM	9674	CE	LYS	R	5	-103.051	98.853	42.14	1	159.08	C
ATOM	9675	NZ	LYS	R	5	-103.586	98.338	43.43	1	158.39	N
ATOM	9676	C	LYS	R	5	-99.702	94.119	41.706	1	134.52	C
ATOM	9677	O	LYS	R	5	-99.721	93.221	40.88	1	138.01	O

ATOM	9678	N	GLU	R	6	-99.915	93.875	43	1	128.49	N
ATOM	9679	CA	GLU	R	6	-99.845	92.483	43.516	1	126.15	C
ATOM	9680	CB	GLU	R	6	-98.565	92.291	44.343	1	121.7	C
ATOM	9681	CG	GLU	R	6	-98.403	93.169	45.572	1	120.6	C
ATOM	9682	CD	GLU	R	6	-96.965	93.219	46.042	1	127.48	C
ATOM	9683	OE1	GLU	R	6	-96.549	94.28	46.551	1	139.69	O
ATOM	9684	OE2	GLU	R	6	-96.247	92.206	45.884	1	124.05	O
ATOM	9685	C	GLU	R	6	-101.058	91.889	44.25	1	130.19	C
ATOM	9686	O	GLU	R	6	-100.973	91.566	45.441	1	121.93	O
ATOM	9687	N	SER	R	7	-102.166	91.718	43.521	1	133.72	N
ATOM	9688	CA	SER	R	7	-103.315	90.902	43.977	1	146.61	C
ATOM	9689	CB	SER	R	7	-102.852	89.471	44.285	1	150.17	C
ATOM	9690	OG	SER	R	7	-103.927	88.62	44.663	1	141.88	O
ATOM	9691	C	SER	R	7	-104.06	91.379	45.217	1	159.3	C
ATOM	9692	O	SER	R	7	-103.78	92.439	45.772	1	167.32	O
ATOM	9693	N	GLY	R	8	-105.032	90.557	45.621	1	170.5	N
ATOM	9694	CA	GLY	R	8	-105.509	90.498	46.996	1	166.51	C
ATOM	9695	C	GLY	R	8	-104.524	89.695	47.849	1	162.27	C
ATOM	9696	O	GLY	R	8	-103.596	89.073	47.307	1	131.35	O
ATOM	9697	N	PRO	R	9	-104.704	89.706	49.189	1	174.2	N
ATOM	9698	CA	PRO	R	9	-103.704	89.096	50.074	1	167.27	C
ATOM	9699	CB	PRO	R	9	-103.265	90.318	50.915	1	179.51	C
ATOM	9700	CG	PRO	R	9	-104.448	91.279	50.88	1	180.94	C
ATOM	9701	CD	PRO	R	9	-105.494	90.683	49.963	1	179.92	C
ATOM	9702	C	PRO	R	9	-104.209	87.92	50.966	1	138.22	C
ATOM	9703	O	PRO	R	9	-104.036	86.738	50.598	1	95.26	O
ATOM	9704	N	GLY	R	10	-104.831	88.268	52.104	1	123.73	N
ATOM	9705	CA	GLY	R	10	-105.23	87.348	53.156	1	107.62	C
ATOM	9706	C	GLY	R	10	-104.221	87.23	54.29	1	101.43	C
ATOM	9707	O	GLY	R	10	-103.066	87.659	54.182	1	100.66	O
ATOM	9708	N	LEU	R	11	-104.704	86.697	55.406	1	96.68	N
ATOM	9709	CA	LEU	R	11	-103.916	85.841	56.28	1	95.9	C
ATOM	9710	CB	LEU	R	11	-104.191	86.146	57.761	1	102.71	C
ATOM	9711	CG	LEU	R	11	-105.518	85.806	58.501	1	96.4	C
ATOM	9712	CD1	LEU	R	11	-105.765	84.319	58.722	1	93.57	C
ATOM	9713	CD2	LEU	R	11	-105.534	86.505	59.86	1	95.38	C
ATOM	9714	C	LEU	R	11	-104.405	84.442	55.953	1	98.51	C
ATOM	9715	O	LEU	R	11	-105.441	84.286	55.3	1	107.69	O
ATOM	9716	N	VAL	R	12	-103.707	83.421	56.424	1	95.81	N
ATOM	9717	CA	VAL	R	12	-104.27	82.072	56.382	1	97.68	C
ATOM	9718	CB	VAL	R	12	-104.285	81.502	54.954	1	99.39	C
ATOM	9719	CG1	VAL	R	12	-102.91	81.621	54.293	1	98.37	C
ATOM	9720	CG2	VAL	R	12	-104.809	80.068	54.956	1	102.16	C
ATOM	9721	C	VAL	R	12	-103.515	81.129	57.291	1	101.6	C

ATOM	9722	O	VAL	R	12	-102.302	81.081	57.265	1	108.56	O
ATOM	9723	N	ALA	R	13	-104.242	80.343	58.067	1	104.22	N
ATOM	9724	CA	ALA	R	13	-103.608	79.452	59.022	1	108.78	C
ATOM	9725	CB	ALA	R	13	-104.66	78.789	59.902	1	118.73	C
ATOM	9726	C	ALA	R	13	-102.798	78.393	58.293	1	102.63	C
ATOM	9727	O	ALA	R	13	-103.068	78.114	57.137	1	87.83	O
ATOM	9728	N	PRO	R	14	-101.804	77.797	58.973	1	117.09	N
ATOM	9729	CA	PRO	R	14	-101.143	76.593	58.458	1	131.39	C
ATOM	9730	CB	PRO	R	14	-99.965	76.424	59.423	1	130.44	C
ATOM	9731	CG	PRO	R	14	-100.47	76.97	60.71	1	123.34	C
ATOM	9732	CD	PRO	R	14	-101.307	78.152	60.317	1	120.88	C
ATOM	9733	C	PRO	R	14	-102.101	75.387	58.553	1	142.38	C
ATOM	9734	O	PRO	R	14	-103.204	75.553	59.074	1	170.91	O
ATOM	9735	N	SER	R	15	-101.742	74.185	58.094	1	130.66	N
ATOM	9736	CA	SER	R	15	-100.526	73.863	57.376	1	112.32	C
ATOM	9737	CB	SER	R	15	-99.841	72.649	58.024	1	107.03	C
ATOM	9738	OG	SER	R	15	-98.563	72.392	57.478	1	101.34	O
ATOM	9739	C	SER	R	15	-101.02	73.546	55.987	1	110.95	C
ATOM	9740	O	SER	R	15	-101.085	72.377	55.595	1	115.26	O
ATOM	9741	N	GLN	R	16	-101.393	74.6	55.258	1	106.55	N
ATOM	9742	CA	GLN	R	16	-102.123	74.447	53.997	1	107.48	C
ATOM	9743	CB	GLN	R	16	-103.618	74.689	54.237	1	111.06	C
ATOM	9744	CG	GLN	R	16	-104.004	76.026	54.839	1	115.85	C
ATOM	9745	CD	GLN	R	16	-105.47	76.06	55.268	1	129.14	C
ATOM	9746	OE1	GLN	R	16	-106.048	75.038	55.65	1	124.23	O
ATOM	9747	NE2	GLN	R	16	-106.077	77.239	55.208	1	137.26	N
ATOM	9748	C	GLN	R	16	-101.524	75.221	52.813	1	107.25	C
ATOM	9749	O	GLN	R	16	-100.299	75.271	52.682	1	101.41	O
ATOM	9750	N	SER	R	17	-102.365	75.78	51.94	1	112.96	N
ATOM	9751	CA	SER	R	17	-101.941	76.282	50.628	1	113.71	C
ATOM	9752	CB	SER	R	17	-102.784	75.631	49.522	1	111.02	C
ATOM	9753	OG	SER	R	17	-104.179	75.747	49.786	1	111.01	O
ATOM	9754	C	SER	R	17	-102.091	77.793	50.592	1	112.6	C
ATOM	9755	O	SER	R	17	-102.617	78.391	51.534	1	125.64	O
ATOM	9756	N	LEU	R	18	-101.622	78.404	49.51	1	99.58	N
ATOM	9757	CA	LEU	R	18	-101.611	79.856	49.381	1	97.61	C
ATOM	9758	CB	LEU	R	18	-100.556	80.46	50.317	1	93.35	C
ATOM	9759	CG	LEU	R	18	-99.707	81.673	49.908	1	93.64	C
ATOM	9760	CD1	LEU	R	18	-100.501	82.859	49.372	1	92.25	C
ATOM	9761	CD2	LEU	R	18	-98.895	82.106	51.113	1	97.96	C
ATOM	9762	C	LEU	R	18	-101.301	80.223	47.953	1	99.31	C
ATOM	9763	O	LEU	R	18	-100.453	79.586	47.338	1	110.21	O
ATOM	9764	N	SER	R	19	-101.973	81.252	47.44	1	96.01	N
ATOM	9765	CA	SER	R	19	-101.72	81.756	46.097	1	95.69	C

ATOM	9766	CB	SER	R	19	-102.719	81.138	45.116	1	91.7	C
ATOM	9767	OG	SER	R	19	-102.952	81.998	44.02	1	88.34	O
ATOM	9768	C	SER	R	19	-101.806	83.274	46.025	1	99.68	C
ATOM	9769	O	SER	R	19	-102.902	83.816	46.091	1	107.04	O
ATOM	9770	N	ILE	R	20	-100.661	83.945	45.86	1	104.55	N
ATOM	9771	CA	ILE	R	20	-100.616	85.402	45.586	1	103.66	C
ATOM	9772	CB	ILE	R	20	-99.339	86.092	46.153	1	103.37	C
ATOM	9773	CG1	ILE	R	20	-99.044	85.646	47.597	1	106.2	C
ATOM	9774	CD1	ILE	R	20	-97.701	86.101	48.145	1	109.14	C
ATOM	9775	CG2	ILE	R	20	-99.492	87.61	46.158	1	106.08	C
ATOM	9776	C	ILE	R	20	-100.722	85.535	44.055	1	100.68	C
ATOM	9777	O	ILE	R	20	-100.597	84.518	43.364	1	99.83	O
ATOM	9778	N	THR	R	21	-100.968	86.746	43.53	1	93.08	N
ATOM	9779	CA	THR	R	21	-101.363	86.939	42.118	1	94.83	C
ATOM	9780	CB	THR	R	21	-102.907	86.763	41.955	1	94.52	C
ATOM	9781	OG1	THR	R	21	-103.304	85.448	42.377	1	93.63	O
ATOM	9782	CG2	THR	R	21	-103.378	86.988	40.52	1	95.4	C
ATOM	9783	C	THR	R	21	-100.905	88.302	41.572	1	101.31	C
ATOM	9784	O	THR	R	21	-101.716	89.202	41.333	1	113.46	O
ATOM	9785	N	CYS	R	22	-99.607	88.433	41.325	1	111.08	N
ATOM	9786	CA	CYS	R	22	-99.011	89.734	40.956	1	113.83	C
ATOM	9787	CB	CYS	R	22	-97.492	89.75	41.185	1	111.89	C
ATOM	9788	SG	CYS	R	22	-96.602	91.231	40.624	1	104.79	S
ATOM	9789	C	CYS	R	22	-99.352	90.169	39.525	1	107.89	C
ATOM	9790	O	CYS	R	22	-98.691	89.791	38.56	1	97.53	O
ATOM	9791	N	THR	R	23	-100.399	90.975	39.423	1	110.55	N
ATOM	9792	CA	THR	R	23	-100.825	91.549	38.15	1	110.51	C
ATOM	9793	CB	THR	R	23	-102.366	91.806	38.151	1	107.36	C
ATOM	9794	OG1	THR	R	23	-102.758	92.476	36.95	1	106.3	O
ATOM	9795	CG2	THR	R	23	-102.83	92.618	39.377	1	108.65	C
ATOM	9796	C	THR	R	23	-99.924	92.756	37.771	1	109.27	C
ATOM	9797	O	THR	R	23	-99.314	93.394	38.628	1	101.26	O
ATOM	9798	N	VAL	R	24	-99.781	93.031	36.48	1	113.52	N
ATOM	9799	CA	VAL	R	24	-98.82	94.048	36.051	1	119.51	C
ATOM	9800	CB	VAL	R	24	-97.419	93.44	35.889	1	117.21	C
ATOM	9801	CG1	VAL	R	24	-97.399	92.38	34.79	1	117.32	C
ATOM	9802	CG2	VAL	R	24	-96.403	94.541	35.623	1	121.65	C
ATOM	9803	C	VAL	R	24	-99.192	94.81	34.775	1	129.85	C
ATOM	9804	O	VAL	R	24	-99.545	94.21	33.755	1	130.49	O
ATOM	9805	N	SER	R	25	-99.068	96.138	34.853	1	143.14	N
ATOM	9806	CA	SER	R	25	-99.401	97.055	33.76	1	152.61	C
ATOM	9807	CB	SER	R	25	-100.274	98.22	34.277	1	152.99	C
ATOM	9808	OG	SER	R	25	-101.337	97.774	35.117	1	136.11	O
ATOM	9809	C	SER	R	25	-98.117	97.609	33.111	1	152.07	C

ATOM	9810	O	SER	R	25	-97.147	97.941	33.804	1	139.76	O
ATOM	9811	N	GLY	R	26	-98.113	97.663	31.779	1	147.8	N
ATOM	9812	CA	GLY	R	26	-97.117	98.413	31.028	1	143.12	C
ATOM	9813	C	GLY	R	26	-95.974	97.681	30.346	1	138.93	C
ATOM	9814	O	GLY	R	26	-95.226	98.318	29.604	1	156.48	O
ATOM	9815	N	PHE	R	27	-95.805	96.376	30.566	1	127.09	N
ATOM	9816	CA	PHE	R	27	-94.704	95.658	29.888	1	124.22	C
ATOM	9817	CB	PHE	R	27	-93.363	95.819	30.656	1	131.62	C
ATOM	9818	CG	PHE	R	27	-93.169	94.932	31.878	1	138.41	C
ATOM	9819	CD1	PHE	R	27	-94.221	94.313	32.559	1	131.54	C
ATOM	9820	CE1	PHE	R	27	-93.967	93.532	33.681	1	130.59	C
ATOM	9821	CZ	PHE	R	27	-92.673	93.384	34.164	1	134.15	C
ATOM	9822	CE2	PHE	R	27	-91.621	94.011	33.519	1	140.52	C
ATOM	9823	CD2	PHE	R	27	-91.87	94.783	32.394	1	143.36	C
ATOM	9824	C	PHE	R	27	-95.012	94.239	29.408	1	112.06	C
ATOM	9825	O	PHE	R	27	-96.048	93.667	29.728	1	105.59	O
ATOM	9826	N	SER	R	28	-94.113	93.709	28.588	1	110.48	N
ATOM	9827	CA	SER	R	28	-94.421	92.562	27.744	1	121.51	C
ATOM	9828	CB	SER	R	28	-93.373	92.423	26.647	1	132.08	C
ATOM	9829	OG	SER	R	28	-93.282	93.623	25.9	1	139.33	O
ATOM	9830	C	SER	R	28	-94.536	91.262	28.51	1	126.37	C
ATOM	9831	O	SER	R	28	-95.397	90.439	28.179	1	126.18	O
ATOM	9832	N	LEU	R	29	-93.662	91.068	29.506	1	129.09	N
ATOM	9833	CA	LEU	R	29	-93.725	89.933	30.464	1	127.63	C
ATOM	9834	CB	LEU	R	29	-95.013	89.99	31.32	1	129.12	C
ATOM	9835	CG	LEU	R	29	-95.696	88.714	31.844	1	127.31	C
ATOM	9836	CD1	LEU	R	29	-96.227	88.918	33.256	1	118.51	C
ATOM	9837	CD2	LEU	R	29	-96.806	88.25	30.895	1	128.83	C
ATOM	9838	C	LEU	R	29	-93.495	88.561	29.816	1	120.9	C
ATOM	9839	O	LEU	R	29	-92.839	87.704	30.398	1	121.59	O
ATOM	9840	N	SER	R	30	-94.053	88.356	28.629	1	116.65	N
ATOM	9841	CA	SER	R	30	-93.514	87.399	27.678	1	121.06	C
ATOM	9842	CB	SER	R	30	-94.421	87.303	26.439	1	136.7	C
ATOM	9843	OG	SER	R	30	-95.05	88.543	26.136	1	148.41	O
ATOM	9844	C	SER	R	30	-92.083	87.733	27.241	1	111.59	C
ATOM	9845	O	SER	R	30	-91.455	86.897	26.598	1	107.47	O
ATOM	9846	N	ARG	R	31	-91.587	88.938	27.556	1	109.28	N
ATOM	9847	CA	ARG	R	31	-90.197	89.337	27.277	1	121.99	C
ATOM	9848	CB	ARG	R	31	-90.211	90.64	26.461	1	134.68	C
ATOM	9849	CG	ARG	R	31	-89.058	90.811	25.472	1	144.01	C
ATOM	9850	CD	ARG	R	31	-89.006	92.237	24.922	1	148.69	C
ATOM	9851	NE	ARG	R	31	-90.235	92.626	24.224	1	146.31	N
ATOM	9852	CZ	ARG	R	31	-90.563	92.292	22.974	1	145.69	C
ATOM	9853	NH1	ARG	R	31	-89.762	91.537	22.222	1	147.85	N

ATOM	9854	NH2	ARG	R	31	-91.72	92.716	22.468	1	151.49	N
ATOM	9855	C	ARG	R	31	-89.272	89.508	28.516	1	117.87	C
ATOM	9856	O	ARG	R	31	-88.052	89.646	28.343	1	112.24	O
ATOM	9857	N	TYR	R	32	-89.821	89.495	29.739	1	115.57	N
ATOM	9858	CA	TYR	R	32	-89.025	89.765	30.96	1	116.16	C
ATOM	9859	CB	TYR	R	32	-89.351	91.161	31.514	1	128.55	C
ATOM	9860	CG	TYR	R	32	-88.697	92.315	30.779	1	136.58	C
ATOM	9861	CD1	TYR	R	32	-87.316	92.35	30.579	1	133.87	C
ATOM	9862	CE1	TYR	R	32	-86.716	93.407	29.913	1	138.68	C
ATOM	9863	CZ	TYR	R	32	-87.497	94.456	29.448	1	145.53	C
ATOM	9864	OH	TYR	R	32	-86.911	95.511	28.786	1	161.73	O
ATOM	9865	CE2	TYR	R	32	-88.866	94.449	29.643	1	143.53	C
ATOM	9866	CD2	TYR	R	32	-89.457	93.389	30.31	1	140.1	C
ATOM	9867	C	TYR	R	32	-89.159	88.766	32.119	1	108.19	C
ATOM	9868	O	TYR	R	32	-90.238	88.23	32.409	1	104.92	O
ATOM	9869	N	SER	R	33	-88.038	88.569	32.806	1	102.64	N
ATOM	9870	CA	SER	R	33	-87.98	87.737	34.001	1	96.9	C
ATOM	9871	CB	SER	R	33	-86.537	87.33	34.339	1	96.91	C
ATOM	9872	OG	SER	R	33	-86.044	86.389	33.404	1	95.47	O
ATOM	9873	C	SER	R	33	-88.589	88.47	35.186	1	94.31	C
ATOM	9874	O	SER	R	33	-88.001	89.402	35.739	1	97.79	O
ATOM	9875	N	VAL	R	34	-89.783	88.033	35.545	1	89.21	N
ATOM	9876	CA	VAL	R	34	-90.422	88.355	36.818	1	89.74	C
ATOM	9877	CB	VAL	R	34	-91.828	87.751	36.78	1	95.05	C
ATOM	9878	CG1	VAL	R	34	-92.436	87.584	38.168	1	94.77	C
ATOM	9879	CG2	VAL	R	34	-92.703	88.575	35.844	1	98.09	C
ATOM	9880	C	VAL	R	34	-89.656	87.758	38.007	1	89.22	C
ATOM	9881	O	VAL	R	34	-88.912	86.817	37.82	1	86.77	O
ATOM	9882	N	HIS	R	35	-89.835	88.3	39.218	1	92.34	N
ATOM	9883	CA	HIS	R	35	-89.302	87.681	40.456	1	97.87	C
ATOM	9884	CB	HIS	R	35	-87.896	88.209	40.785	1	98.59	C
ATOM	9885	CG	HIS	R	35	-86.939	88.151	39.641	1	102.86	C
ATOM	9886	ND1	HIS	R	35	-85.957	87.193	39.535	1	112.83	N
ATOM	9887	CE1	HIS	R	35	-85.278	87.379	38.417	1	122.14	C
ATOM	9888	NE2	HIS	R	35	-85.789	88.423	37.79	1	121.98	N
ATOM	9889	CD2	HIS	R	35	-86.824	88.928	38.539	1	112.42	C
ATOM	9890	C	HIS	R	35	-90.2	87.95	41.673	1	101.33	C
ATOM	9891	O	HIS	R	35	-90.547	89.1	41.921	1	102.59	O
ATOM	9892	N	TRP	R	36	-90.558	86.897	42.426	1	103.75	N
ATOM	9893	CA	TRP	R	36	-91.154	87.024	43.782	1	97.23	C
ATOM	9894	CB	TRP	R	36	-92.097	85.87	44.082	1	91.14	C
ATOM	9895	CG	TRP	R	36	-93.327	85.801	43.283	1	90.33	C
ATOM	9896	CD1	TRP	R	36	-93.525	85.045	42.187	1	100.48	C
ATOM	9897	NE1	TRP	R	36	-94.811	85.194	41.724	1	102.73	N

ATOM	9898	CE2	TRP	R	36	-95.471	86.063	42.541	1	92.39	C
ATOM	9899	CD2	TRP	R	36	-94.569	86.457	43.549	1	88.74	C
ATOM	9900	CE3	TRP	R	36	-95.003	87.349	44.531	1	93.06	C
ATOM	9901	CZ3	TRP	R	36	-96.309	87.803	44.48	1	98.21	C
ATOM	9902	CH2	TRP	R	36	-97.183	87.387	43.457	1	97.55	C
ATOM	9903	CZ2	TRP	R	36	-96.777	86.518	42.483	1	92.79	C
ATOM	9904	C	TRP	R	36	-90.077	86.963	44.867	1	100.41	C
ATOM	9905	O	TRP	R	36	-89.258	86.045	44.866	1	104.28	O
ATOM	9906	N	VAL	R	37	-90.078	87.909	45.802	1	103.72	N
ATOM	9907	CA	VAL	R	37	-89.193	87.813	46.979	1	111.39	C
ATOM	9908	CB	VAL	R	37	-87.969	88.757	46.917	1	112.03	C
ATOM	9909	CG1	VAL	R	37	-87.253	88.596	45.586	1	120.63	C
ATOM	9910	CG2	VAL	R	37	-88.363	90.201	47.18	1	107.03	C
ATOM	9911	C	VAL	R	37	-89.969	88.072	48.251	1	110	C
ATOM	9912	O	VAL	R	37	-91.133	88.487	48.221	1	104.91	O
ATOM	9913	N	ARG	R	38	-89.297	87.839	49.369	1	102.25	N
ATOM	9914	CA	ARG	R	38	-89.967	87.759	50.627	1	101.14	C
ATOM	9915	CB	ARG	R	38	-90.127	86.292	50.981	1	103.53	C
ATOM	9916	CG	ARG	R	38	-91.022	86.044	52.175	1	105.62	C
ATOM	9917	CD	ARG	R	38	-91.38	84.582	52.356	1	98.3	C
ATOM	9918	NE	ARG	R	38	-90.259	83.751	52.784	1	92.23	N
ATOM	9919	CZ	ARG	R	38	-90.384	82.536	53.315	1	87.65	C
ATOM	9920	NH1	ARG	R	38	-91.587	81.978	53.502	1	81.58	N
ATOM	9921	NH2	ARG	R	38	-89.29	81.868	53.669	1	88.57	N
ATOM	9922	C	ARG	R	38	-89.184	88.466	51.702	1	108.33	C
ATOM	9923	O	ARG	R	38	-87.952	88.534	51.628	1	111.48	O
ATOM	9924	N	GLN	R	39	-89.924	89.007	52.677	1	113.7	N
ATOM	9925	CA	GLN	R	39	-89.382	89.455	53.959	1	111.06	C
ATOM	9926	CB	GLN	R	39	-89.207	90.967	53.987	1	115.67	C
ATOM	9927	CG	GLN	R	39	-88.626	91.466	55.303	1	115.87	C
ATOM	9928	CD	GLN	R	39	-87.801	92.712	55.125	1	114.03	C
ATOM	9929	OE1	GLN	R	39	-88.272	93.685	54.534	1	107.11	O
ATOM	9930	NE2	GLN	R	39	-86.563	92.693	55.629	1	109.48	N
ATOM	9931	C	GLN	R	39	-90.318	89.071	55.097	1	102.55	C
ATOM	9932	O	GLN	R	39	-91.467	89.51	55.104	1	89.3	O
ATOM	9933	N	PRO	R	40	-89.829	88.276	56.066	1	107.24	N
ATOM	9934	CA	PRO	R	40	-90.555	88.085	57.323	1	117.21	C
ATOM	9935	CB	PRO	R	40	-90.005	86.757	57.84	1	118.25	C
ATOM	9936	CG	PRO	R	40	-88.608	86.715	57.331	1	116.46	C
ATOM	9937	CD	PRO	R	40	-88.603	87.456	56.018	1	110.57	C
ATOM	9938	C	PRO	R	40	-90.282	89.208	58.335	1	122.68	C
ATOM	9939	O	PRO	R	40	-89.131	89.632	58.476	1	126.59	O
ATOM	9940	N	PRO	R	41	-91.334	89.7	59.026	1	123.03	N
ATOM	9941	CA	PRO	R	41	-91.125	90.613	60.137	1	122.42	C

ATOM	9942	CB	PRO	R	41	-92.501	90.677	60.794	1	131.19	C
ATOM	9943	CG	PRO	R	41	-93.446	90.504	59.66	1	130.26	C
ATOM	9944	CD	PRO	R	41	-92.762	89.603	58.675	1	128.21	C
ATOM	9945	C	PRO	R	41	-90.074	90.073	61.097	1	115.82	C
ATOM	9946	O	PRO	R	41	-90.203	88.952	61.612	1	104.31	O
ATOM	9947	N	GLY	R	42	-89.035	90.874	61.294	1	115.55	N
ATOM	9948	CA	GLY	R	42	-87.808	90.434	61.932	1	120.4	C
ATOM	9949	C	GLY	R	42	-86.681	90.505	60.922	1	118.14	C
ATOM	9950	O	GLY	R	42	-86.132	91.584	60.681	1	114.51	O
ATOM	9951	N	LYS	R	43	-86.388	89.365	60.294	1	119.1	N
ATOM	9952	CA	LYS	R	43	-85.162	89.175	59.491	1	128.96	C
ATOM	9953	CB	LYS	R	43	-84.893	87.662	59.311	1	131.18	C
ATOM	9954	CG	LYS	R	43	-83.427	87.26	59.157	1	138.9	C
ATOM	9955	CD	LYS	R	43	-83.116	85.865	59.713	1	146.14	C
ATOM	9956	CE	LYS	R	43	-82.818	85.851	61.214	1	145.5	C
ATOM	9957	NZ	LYS	R	43	-81.675	84.952	61.555	1	136.59	N
ATOM	9958	C	LYS	R	43	-85.184	89.931	58.131	1	130.1	C
ATOM	9959	O	LYS	R	43	-86.169	90.605	57.793	1	124.43	O
ATOM	9960	N	GLY	R	44	-84.084	89.849	57.379	1	122.69	N
ATOM	9961	CA	GLY	R	44	-83.941	90.568	56.117	1	123.3	C
ATOM	9962	C	GLY	R	44	-84.783	90.06	54.955	1	125.53	C
ATOM	9963	O	GLY	R	44	-85.889	89.545	55.15	1	122.35	O
ATOM	9964	N	LEU	R	45	-84.251	90.228	53.741	1	118.39	N
ATOM	9965	CA	LEU	R	45	-84.925	89.827	52.504	1	107.97	C
ATOM	9966	CB	LEU	R	45	-84.555	90.77	51.37	1	108.17	C
ATOM	9967	CG	LEU	R	45	-85.057	92.203	51.464	1	116.61	C
ATOM	9968	CD1	LEU	R	45	-84.318	93.102	50.473	1	120.57	C
ATOM	9969	CD2	LEU	R	45	-86.553	92.255	51.205	1	119.13	C
ATOM	9970	C	LEU	R	45	-84.534	88.422	52.085	1	112.92	C
ATOM	9971	O	LEU	R	45	-83.457	87.935	52.436	1	122.49	O
ATOM	9972	N	GLU	R	46	-85.404	87.792	51.301	1	111.58	N
ATOM	9973	CA	GLU	R	46	-85.205	86.419	50.844	1	110.33	C
ATOM	9974	CB	GLU	R	46	-86.001	85.458	51.731	1	117.3	C
ATOM	9975	CG	GLU	R	46	-85.458	85.28	53.145	1	117.91	C
ATOM	9976	CD	GLU	R	46	-86.323	84.376	54.015	1	117.45	C
ATOM	9977	OE1	GLU	R	46	-86.024	84.281	55.224	1	113.82	O
ATOM	9978	OE2	GLU	R	46	-87.293	83.762	53.503	1	113.26	O
ATOM	9979	C	GLU	R	46	-85.689	86.275	49.406	1	107.49	C
ATOM	9980	O	GLU	R	46	-86.81	86.708	49.096	1	102.86	O
ATOM	9981	N	TRP	R	47	-84.86	85.654	48.55	1	98.01	N
ATOM	9982	CA	TRP	R	47	-85.246	85.36	47.163	1	89.65	C
ATOM	9983	CB	TRP	R	47	-84.039	85.225	46.253	1	87.67	C
ATOM	9984	CG	TRP	R	47	-84.469	85.208	44.814	1	89.17	C
ATOM	9985	CD1	TRP	R	47	-84.969	86.256	44.126	1	88.61	C

ATOM	9986	NE1	TRP	R	47	-85.255	85.893	42.845	1	88.87	N
ATOM	9987	CE2	TRP	R	47	-84.954	84.571	42.678	1	85.08	C
ATOM	9988	CD2	TRP	R	47	-84.459	84.099	43.901	1	89.71	C
ATOM	9989	CE3	TRP	R	47	-84.072	82.754	43.997	1	96.28	C
ATOM	9990	CZ3	TRP	R	47	-84.198	81.942	42.875	1	90.88	C
ATOM	9991	CH2	TRP	R	47	-84.689	82.458	41.672	1	92.54	C
ATOM	9992	CZ2	TRP	R	47	-85.072	83.765	41.559	1	87.25	C
ATOM	9993	C	TRP	R	47	-86.015	84.067	47.044	1	87.12	C
ATOM	9994	O	TRP	R	47	-85.467	83.014	47.355	1	82.82	O
ATOM	9995	N	LEU	R	48	-87.243	84.142	46.531	1	88.69	N
ATOM	9996	CA	LEU	R	48	-88.142	82.977	46.463	1	93.01	C
ATOM	9997	CB	LEU	R	48	-89.591	83.423	46.674	1	92.04	C
ATOM	9998	CG	LEU	R	48	-90.144	83.236	48.083	1	92.59	C
ATOM	9999	CD1	LEU	R	48	-89.192	83.686	49.188	1	89.97	C
ATOM	10000	CD2	LEU	R	48	-91.47	83.973	48.158	1	95.54	C
ATOM	10001	C	LEU	R	48	-88.033	82.181	45.165	1	96.4	C
ATOM	10002	O	LEU	R	48	-87.863	80.96	45.174	1	98.48	O
ATOM	10003	N	GLY	R	49	-88.161	82.88	44.052	1	101.76	N
ATOM	10004	CA	GLY	R	49	-88.06	82.252	42.751	1	106.24	C
ATOM	10005	C	GLY	R	49	-88.428	83.223	41.655	1	110.55	C
ATOM	10006	O	GLY	R	49	-88.618	84.416	41.909	1	115.87	O
ATOM	10007	N	MET	R	50	-88.552	82.703	40.437	1	108.86	N
ATOM	10008	CA	MET	R	50	-88.892	83.524	39.284	1	99.36	C
ATOM	10009	CB	MET	R	50	-87.677	84.358	38.906	1	98.6	C
ATOM	10010	CG	MET	R	50	-86.521	83.536	38.424	1	97.22	C
ATOM	10011	SD	MET	R	50	-86.725	83.234	36.673	1	107.73	S
ATOM	10012	CE	MET	R	50	-85.473	81.983	36.507	1	125.45	C
ATOM	10013	C	MET	R	50	-89.33	82.697	38.084	1	90.05	C
ATOM	10014	O	MET	R	50	-89.181	81.472	38.06	1	81.83	O
ATOM	10015	N	ILE	R	51	-89.81	83.403	37.067	1	84.6	N
ATOM	10016	CA	ILE	R	51	-90.296	82.782	35.847	1	85.32	C
ATOM	10017	CB	ILE	R	51	-91.831	82.668	35.87	1	83.49	C
ATOM	10018	CG1	ILE	R	51	-92.319	81.858	34.67	1	82.01	C
ATOM	10019	CD1	ILE	R	51	-93.793	81.517	34.724	1	83.19	C
ATOM	10020	CG2	ILE	R	51	-92.512	84.036	35.952	1	83.35	C
ATOM	10021	C	ILE	R	51	-89.815	83.514	34.589	1	92.31	C
ATOM	10022	O	ILE	R	51	-90.34	84.581	34.23	1	102.75	O
ATOM	10023	N	TRP	R	52	-88.819	82.924	33.921	1	92.13	N
ATOM	10024	CA	TRP	R	52	-88.323	83.409	32.626	1	94.39	C
ATOM	10025	CB	TRP	R	52	-87.498	82.337	31.923	1	94.48	C
ATOM	10026	CG	TRP	R	52	-86.172	82.041	32.515	1	92.18	C
ATOM	10027	CD1	TRP	R	52	-85.899	81.149	33.501	1	92.4	C
ATOM	10028	NE1	TRP	R	52	-84.55	81.122	33.759	1	93.51	N
ATOM	10029	CE2	TRP	R	52	-83.925	82.011	32.929	1	93.19	C

ATOM	10030	CD2	TRP	R	52	-84.919	82.591	32.11	1	93.29	C
ATOM	10031	CE3	TRP	R	52	-84.54	83.534	31.147	1	96.12	C
ATOM	10032	CZ3	TRP	R	52	-83.194	83.858	31.028	1	99.84	C
ATOM	10033	CH2	TRP	R	52	-82.224	83.251	31.852	1	102.93	C
ATOM	10034	CZ2	TRP	R	52	-82.572	82.325	32.804	1	97.52	C
ATOM	10035	C	TRP	R	52	-89.478	83.758	31.695	1	100.15	C
ATOM	10036	O	TRP	R	52	-90.465	83.013	31.615	1	102.09	O
ATOM	10037	N	GLY	R	53	-89.34	84.868	30.975	1	101.51	N
ATOM	10038	CA	GLY	R	53	-90.406	85.385	30.122	1	107.47	C
ATOM	10039	C	GLY	R	53	-91.129	84.315	29.322	1	113.28	C
ATOM	10040	O	GLY	R	53	-92.37	84.271	29.278	1	110.07	O
ATOM	10041	N	PHE	R	54	-90.325	83.44	28.72	1	116.01	N
ATOM	10042	CA	PHE	R	54	-90.813	82.361	27.856	1	111.76	C
ATOM	10043	CB	PHE	R	54	-89.68	81.829	26.975	1	103.88	C
ATOM	10044	CG	PHE	R	54	-88.564	81.176	27.734	1	100.85	C
ATOM	10045	CD1	PHE	R	54	-88.683	79.868	28.179	1	105.1	C
ATOM	10046	CE1	PHE	R	54	-87.647	79.252	28.865	1	107.79	C
ATOM	10047	CZ	PHE	R	54	-86.475	79.94	29.111	1	106.1	C
ATOM	10048	CE2	PHE	R	54	-86.336	81.248	28.669	1	107.04	C
ATOM	10049	CD2	PHE	R	54	-87.376	81.858	27.98	1	104.86	C
ATOM	10050	C	PHE	R	54	-91.509	81.193	28.565	1	110.49	C
ATOM	10051	O	PHE	R	54	-92.221	80.424	27.899	1	111.46	O
ATOM	10052	N	GLY	R	55	-91.273	81.02	29.87	1	100.42	N
ATOM	10053	CA	GLY	R	55	-92.052	80.065	30.662	1	96.15	C
ATOM	10054	C	GLY	R	55	-91.349	79.389	31.822	1	89.93	C
ATOM	10055	O	GLY	R	55	-91.865	79.389	32.933	1	82.15	O
ATOM	10056	N	SER	R	56	-90.201	78.771	31.559	1	87.34	N
ATOM	10057	CA	SER	R	56	-89.461	78.027	32.589	1	87.55	C
ATOM	10058	CB	SER	R	56	-88.067	77.664	32.104	1	87.91	C
ATOM	10059	OG	SER	R	56	-87.165	77.584	33.2	1	87.24	O
ATOM	10060	C	SER	R	56	-89.296	78.815	33.871	1	93.33	C
ATOM	10061	O	SER	R	56	-89.199	80.044	33.836	1	108.94	O
ATOM	10062	N	THR	R	57	-89.218	78.094	34.989	1	92.62	N
ATOM	10063	CA	THR	R	57	-89.123	78.699	36.323	1	88.23	C
ATOM	10064	CB	THR	R	57	-90.148	78.065	37.256	1	89.27	C
ATOM	10065	OG1	THR	R	57	-89.841	76.675	37.387	1	97.94	O
ATOM	10066	CG2	THR	R	57	-91.561	78.222	36.69	1	87.98	C
ATOM	10067	C	THR	R	57	-87.751	78.46	36.911	1	83.68	C
ATOM	10068	O	THR	R	57	-86.922	77.808	36.285	1	81.98	O
ATOM	10069	N	ASP	R	58	-87.507	79.01	38.098	1	89.15	N
ATOM	10070	CA	ASP	R	58	-86.305	78.673	38.892	1	94.52	C
ATOM	10071	CB	ASP	R	58	-85.011	79.198	38.246	1	97.95	C
ATOM	10072	CG	ASP	R	58	-83.871	78.221	38.376	1	106.45	C
ATOM	10073	OD1	ASP	R	58	-83.595	77.801	39.526	1	112.87	O

ATOM	10074	OD2	ASP	R	58	-83.278	77.854	37.329	1	108.25	O
ATOM	10075	C	ASP	R	58	-86.431	79.228	40.295	1	82.67	C
ATOM	10076	O	ASP	R	58	-86.714	80.408	40.454	1	76.64	O
ATOM	10077	N	TYR	R	59	-86.189	78.387	41.296	1	77.76	N
ATOM	10078	CA	TYR	R	59	-86.633	78.673	42.661	1	79.03	C
ATOM	10079	CB	TYR	R	59	-87.61	77.608	43.098	1	78.39	C
ATOM	10080	CG	TYR	R	59	-88.776	77.441	42.189	1	77.48	C
ATOM	10081	CD1	TYR	R	59	-89.604	78.505	41.904	1	74.76	C
ATOM	10082	CE1	TYR	R	59	-90.708	78.342	41.096	1	80.25	C
ATOM	10083	CZ	TYR	R	59	-91.001	77.093	40.553	1	82.91	C
ATOM	10084	OH	TYR	R	59	-92.1	76.913	39.737	1	80.91	O
ATOM	10085	CE2	TYR	R	59	-90.188	76.017	40.833	1	84.92	C
ATOM	10086	CD2	TYR	R	59	-89.085	76.195	41.652	1	84.34	C
ATOM	10087	C	TYR	R	59	-85.553	78.709	43.712	1	78.6	C
ATOM	10088	O	TYR	R	59	-84.425	78.282	43.484	1	88.02	O
ATOM	10089	N	ASN	R	60	-85.953	79.191	44.885	1	74.07	N
ATOM	10090	CA	ASN	R	60	-85.129	79.209	46.083	1	80.24	C
ATOM	10091	CB	ASN	R	60	-85.987	79.66	47.262	1	84.37	C
ATOM	10092	CG	ASN	R	60	-85.335	79.388	48.586	1	87.95	C
ATOM	10093	OD1	ASN	R	60	-85.709	78.447	49.276	1	91.11	O
ATOM	10094	ND2	ASN	R	60	-84.316	80.165	48.923	1	93.89	N
ATOM	10095	C	ASN	R	60	-84.574	77.838	46.389	1	81.67	C
ATOM	10096	O	ASN	R	60	-85.222	76.854	46.082	1	91.63	O
ATOM	10097	N	SER	R	61	-83.399	77.768	47.008	1	84.55	N
ATOM	10098	CA	SER	R	61	-82.8	76.469	47.34	1	93.43	C
ATOM	10099	CB	SER	R	61	-81.432	76.637	48.038	1	105.46	C
ATOM	10100	OG	SER	R	61	-80.394	77.013	47.127	1	112.47	O
ATOM	10101	C	SER	R	61	-83.75	75.607	48.19	1	88.86	C
ATOM	10102	O	SER	R	61	-84.191	74.549	47.742	1	82.22	O
ATOM	10103	N	ALA	R	62	-84.104	76.094	49.379	1	91.8	N
ATOM	10104	CA	ALA	R	62	-84.843	75.293	50.38	1	95.2	C
ATOM	10105	CB	ALA	R	62	-84.62	75.864	51.77	1	96.06	C
ATOM	10106	C	ALA	R	62	-86.348	75.161	50.109	1	95.3	C
ATOM	10107	O	ALA	R	62	-86.932	74.085	50.267	1	97.41	O
ATOM	10108	N	LEU	R	63	-86.969	76.26	49.711	1	89.78	N
ATOM	10109	CA	LEU	R	63	-88.378	76.249	49.348	1	91.34	C
ATOM	10110	CB	LEU	R	63	-88.938	77.673	49.303	1	90.74	C
ATOM	10111	CG	LEU	R	63	-89.298	78.284	50.651	1	90.79	C
ATOM	10112	CD1	LEU	R	63	-88.103	78.373	51.587	1	93.32	C
ATOM	10113	CD2	LEU	R	63	-89.901	79.661	50.425	1	90.26	C
ATOM	10114	C	LEU	R	63	-88.673	75.54	48.015	1	96.86	C
ATOM	10115	O	LEU	R	63	-89.85	75.366	47.692	1	106.54	O
ATOM	10116	N	LYS	R	64	-87.646	75.141	47.246	1	92.05	N
ATOM	10117	CA	LYS	R	64	-87.843	74.394	45.992	1	90.17	C

ATOM	10118	CB	LYS	R	64	-86.692	73.403	45.727	1	95.88	C
ATOM	10119	CG	LYS	R	64	-85.743	73.793	44.595	1	103.37	C
ATOM	10120	CD	LYS	R	64	-84.988	72.591	44.021	1	107.42	C
ATOM	10121	CE	LYS	R	64	-83.588	72.954	43.52	1	110.83	C
ATOM	10122	NZ	LYS	R	64	-82.981	71.899	42.652	1	109.59	N
ATOM	10123	C	LYS	R	64	-89.135	73.612	46.012	1	88.5	C
ATOM	10124	O	LYS	R	64	-90.031	73.868	45.204	1	82.54	O
ATOM	10125	N	SER	R	65	-89.221	72.713	46.996	1	87.71	N
ATOM	10126	CA	SER	R	65	-90.233	71.659	47.05	1	86.28	C
ATOM	10127	CB	SER	R	65	-89.864	70.619	48.121	1	87.63	C
ATOM	10128	OG	SER	R	65	-90.434	70.939	49.382	1	80.97	O
ATOM	10129	C	SER	R	65	-91.663	72.127	47.307	1	89.44	C
ATOM	10130	O	SER	R	65	-92.594	71.393	46.992	1	94.75	O
ATOM	10131	N	ARG	R	66	-91.843	73.314	47.885	1	94.41	N
ATOM	10132	CA	ARG	R	66	-93.177	73.798	48.27	1	102.99	C
ATOM	10133	CB	ARG	R	66	-93.145	74.284	49.713	1	108.29	C
ATOM	10134	CG	ARG	R	66	-92.641	73.249	50.703	1	116.68	C
ATOM	10135	CD	ARG	R	66	-92.064	73.922	51.924	1	121.06	C
ATOM	10136	NE	ARG	R	66	-93.027	74.848	52.497	1	118.42	N
ATOM	10137	CZ	ARG	R	66	-92.74	75.768	53.409	1	123.9	C
ATOM	10138	NH1	ARG	R	66	-91.506	75.914	53.892	1	121.54	N
ATOM	10139	NH2	ARG	R	66	-93.709	76.549	53.848	1	132.53	N
ATOM	10140	C	ARG	R	66	-93.704	74.934	47.408	1	107.39	C
ATOM	10141	O	ARG	R	66	-94.829	75.379	47.611	1	124.04	O
ATOM	10142	N	LEU	R	67	-92.915	75.377	46.433	1	105.94	N
ATOM	10143	CA	LEU	R	67	-93.115	76.662	45.773	1	101.48	C
ATOM	10144	CB	LEU	R	67	-91.845	77.459	46.001	1	111.33	C
ATOM	10145	CG	LEU	R	67	-91.932	78.976	45.938	1	124.64	C
ATOM	10146	CD1	LEU	R	67	-91.495	79.585	47.261	1	129.27	C
ATOM	10147	CD2	LEU	R	67	-91.095	79.516	44.783	1	134.8	C
ATOM	10148	C	LEU	R	67	-93.403	76.464	44.275	1	91.24	C
ATOM	10149	O	LEU	R	67	-92.777	75.607	43.654	1	89.1	O
ATOM	10150	N	SER	R	68	-94.345	77.231	43.705	1	85.31	N
ATOM	10151	CA	SER	R	68	-94.778	77.053	42.286	1	86.12	C
ATOM	10152	CB	SER	R	68	-95.916	76.023	42.185	1	85.95	C
ATOM	10153	OG	SER	R	68	-95.561	74.801	42.799	1	92.21	O
ATOM	10154	C	SER	R	68	-95.217	78.342	41.556	1	83.63	C
ATOM	10155	O	SER	R	68	-96.414	78.692	41.525	1	84.5	O
ATOM	10156	N	ILE	R	69	-94.25	79	40.915	1	75.29	N
ATOM	10157	CA	ILE	R	69	-94.483	80.259	40.202	1	75.5	C
ATOM	10158	CB	ILE	R	69	-93.205	81.099	40.088	1	77.06	C
ATOM	10159	CG1	ILE	R	69	-92.643	81.377	41.481	1	80.64	C
ATOM	10160	CD1	ILE	R	69	-91.222	81.877	41.488	1	79.97	C
ATOM	10161	CG2	ILE	R	69	-93.49	82.418	39.367	1	76.98	C

ATOM	10162	C	ILE	R	69	-94.996	79.972	38.807	1	74.71	C
ATOM	10163	O	ILE	R	69	-94.566	79.011	38.177	1	79.31	O
ATOM	10164	N	THR	R	70	-95.888	80.82	38.31	1	74.79	N
ATOM	10165	CA	THR	R	70	-96.661	80.48	37.118	1	82.46	C
ATOM	10166	CB	THR	R	70	-97.565	79.276	37.426	1	85.98	C
ATOM	10167	OG1	THR	R	70	-98.567	79.149	36.413	1	90.34	O
ATOM	10168	CG2	THR	R	70	-98.234	79.427	38.824	1	88.95	C
ATOM	10169	C	THR	R	70	-97.512	81.657	36.635	1	89.6	C
ATOM	10170	O	THR	R	70	-97.858	82.528	37.43	1	89.11	O
ATOM	10171	N	LYS	R	71	-97.858	81.676	35.343	1	99.32	N
ATOM	10172	CA	LYS	R	71	-98.484	82.87	34.734	1	100.34	C
ATOM	10173	CB	LYS	R	71	-97.388	83.844	34.265	1	96.69	C
ATOM	10174	CG	LYS	R	71	-96.523	83.392	33.098	1	93.67	C
ATOM	10175	CD	LYS	R	71	-95.331	84.324	32.946	1	97.57	C
ATOM	10176	CE	LYS	R	71	-94.314	83.85	31.91	1	103.84	C
ATOM	10177	NZ	LYS	R	71	-93.071	84.685	31.889	1	101.1	N
ATOM	10178	C	LYS	R	71	-99.506	82.669	33.596	1	104.19	C
ATOM	10179	O	LYS	R	71	-99.496	81.663	32.87	1	99.65	O
ATOM	10180	N	ASP	R	72	-100.4	83.654	33.503	1	108.62	N
ATOM	10181	CA	ASP	R	72	-101.242	83.902	32.346	1	116.51	C
ATOM	10182	CB	ASP	R	72	-102.655	84.299	32.79	1	125.78	C
ATOM	10183	CG	ASP	R	72	-103.687	84.199	31.676	1	134.11	C
ATOM	10184	OD1	ASP	R	72	-103.327	84.314	30.48	1	149.04	O
ATOM	10185	OD2	ASP	R	72	-104.881	84.025	32.013	1	132.27	O
ATOM	10186	C	ASP	R	72	-100.559	85.052	31.601	1	121.65	C
ATOM	10187	O	ASP	R	72	-100.309	86.124	32.164	1	120.21	O
ATOM	10188	N	ASN	R	73	-100.254	84.807	30.335	1	128.55	N
ATOM	10189	CA	ASN	R	73	-99.407	85.69	29.552	1	131.18	C
ATOM	10190	CB	ASN	R	73	-98.815	84.901	28.367	1	135.89	C
ATOM	10191	CG	ASN	R	73	-97.462	85.42	27.914	1	135.16	C
ATOM	10192	OD1	ASN	R	73	-97.224	85.556	26.71	1	137.86	O
ATOM	10193	ND2	ASN	R	73	-96.56	85.681	28.866	1	123.99	N
ATOM	10194	C	ASN	R	73	-100.209	86.894	29.072	1	130.02	C
ATOM	10195	O	ASN	R	73	-99.749	88.031	29.194	1	129.66	O
ATOM	10196	N	SER	R	74	-101.416	86.625	28.561	1	128.91	N
ATOM	10197	CA	SER	R	74	-102.278	87.633	27.93	1	127.44	C
ATOM	10198	CB	SER	R	74	-103.313	86.954	27.03	1	127.2	C
ATOM	10199	OG	SER	R	74	-102.671	86.145	26.058	1	135.13	O
ATOM	10200	C	SER	R	74	-102.989	88.502	28.955	1	120.14	C
ATOM	10201	O	SER	R	74	-102.916	89.729	28.899	1	121.02	O
ATOM	10202	N	LYS	R	75	-103.667	87.861	29.9	1	116.52	N
ATOM	10203	CA	LYS	R	75	-104.281	88.582	31.023	1	119.41	C
ATOM	10204	CB	LYS	R	75	-105.064	87.629	31.964	1	130.31	C
ATOM	10205	CG	LYS	R	75	-106.596	87.733	31.901	1	142.44	C

ATOM	10206	CD	LYS	R	75	-107.316	86.523	31.294	1	150.38	C
ATOM	10207	CE	LYS	R	75	-107.507	86.607	29.78	1	152.76	C
ATOM	10208	NZ	LYS	R	75	-106.308	86.261	28.957	1	147.5	N
ATOM	10209	C	LYS	R	75	-103.228	89.394	31.806	1	105.87	C
ATOM	10210	O	LYS	R	75	-103.567	90.344	32.493	1	104.74	O
ATOM	10211	N	SER	R	76	-101.965	88.99	31.711	1	99.51	N
ATOM	10212	CA	SER	R	76	-100.817	89.758	32.198	1	100.46	C
ATOM	10213	CB	SER	R	76	-100.764	91.173	31.601	1	98.4	C
ATOM	10214	OG	SER	R	76	-100.835	91.12	30.192	1	103.98	O
ATOM	10215	C	SER	R	76	-100.705	89.8	33.716	1	95.18	C
ATOM	10216	O	SER	R	76	-100.576	90.869	34.309	1	88.46	O
ATOM	10217	N	GLN	R	77	-100.742	88.62	34.33	1	96.22	N
ATOM	10218	CA	GLN	R	77	-100.341	88.461	35.727	1	106.29	C
ATOM	10219	CB	GLN	R	77	-101.536	88.574	36.702	1	114.49	C
ATOM	10220	CG	GLN	R	77	-102.649	87.537	36.578	1	117.86	C
ATOM	10221	CD	GLN	R	77	-103.788	87.962	35.662	1	118.92	C
ATOM	10222	OE1	GLN	R	77	-103.625	88.84	34.821	1	118.99	O
ATOM	10223	NE2	GLN	R	77	-104.952	87.33	35.822	1	116.84	N
ATOM	10224	C	GLN	R	77	-99.617	87.146	35.905	1	103.08	C
ATOM	10225	O	GLN	R	77	-99.654	86.295	35.027	1	106.45	O
ATOM	10226	N	PHE	R	78	-98.948	87.005	37.042	1	101.41	N
ATOM	10227	CA	PHE	R	78	-98.304	85.754	37.437	1	104.95	C
ATOM	10228	CB	PHE	R	78	-96.788	85.789	37.25	1	100.58	C
ATOM	10229	CG	PHE	R	78	-96.183	87.09	37.577	1	101.39	C
ATOM	10230	CD1	PHE	R	78	-96.139	88.083	36.614	1	109.1	C
ATOM	10231	CE1	PHE	R	78	-95.599	89.322	36.901	1	119.21	C
ATOM	10232	CZ	PHE	R	78	-95.079	89.572	38.166	1	118.13	C
ATOM	10233	CE2	PHE	R	78	-95.127	88.584	39.141	1	112.22	C
ATOM	10234	CD2	PHE	R	78	-95.685	87.347	38.843	1	104.98	C
ATOM	10235	C	PHE	R	78	-98.636	85.489	38.88	1	113.95	C
ATOM	10236	O	PHE	R	78	-99.114	86.371	39.59	1	123.28	O
ATOM	10237	N	PHE	R	79	-98.365	84.26	39.298	1	119.37	N
ATOM	10238	CA	PHE	R	79	-98.86	83.724	40.552	1	115.74	C
ATOM	10239	CB	PHE	R	79	-99.999	82.739	40.258	1	116.17	C
ATOM	10240	CG	PHE	R	79	-100.878	83.148	39.099	1	113.22	C
ATOM	10241	CD1	PHE	R	79	-101.767	84.195	39.227	1	109.91	C
ATOM	10242	CE1	PHE	R	79	-102.572	84.577	38.169	1	111.39	C
ATOM	10243	CZ	PHE	R	79	-102.497	83.912	36.965	1	115.67	C
ATOM	10244	CE2	PHE	R	79	-101.607	82.867	36.816	1	120.78	C
ATOM	10245	CD2	PHE	R	79	-100.8	82.494	37.876	1	119.83	C
ATOM	10246	C	PHE	R	79	-97.735	83.034	41.317	1	113.46	C
ATOM	10247	O	PHE	R	79	-96.757	82.589	40.718	1	114.84	O
ATOM	10248	N	LEU	R	80	-97.888	82.972	42.639	1	110.02	N
ATOM	10249	CA	LEU	R	80	-96.97	82.279	43.542	1	106.77	C

ATOM	10250	CB	LEU	R	80	-96.418	83.28	44.552	1	105.04	C
ATOM	10251	CG	LEU	R	80	-95.282	82.899	45.502	1	109.45	C
ATOM	10252	CD1	LEU	R	80	-94.878	84.132	46.304	1	111.58	C
ATOM	10253	CD2	LEU	R	80	-95.638	81.755	46.443	1	112.79	C
ATOM	10254	C	LEU	R	80	-97.797	81.25	44.274	1	105.23	C
ATOM	10255	O	LEU	R	80	-98.863	81.605	44.75	1	107.21	O
ATOM	10256	N	LYS	R	81	-97.329	80.002	44.372	1	105.65	N
ATOM	10257	CA	LYS	R	81	-97.961	79.005	45.264	1	115.96	C
ATOM	10258	CB	LYS	R	81	-98.617	77.861	44.484	1	125.48	C
ATOM	10259	CG	LYS	R	81	-100.127	77.948	44.445	1	140.78	C
ATOM	10260	CD	LYS	R	81	-100.666	77.587	43.078	1	169.03	C
ATOM	10261	CE	LYS	R	81	-100.454	78.712	42.055	1	189.64	C
ATOM	10262	NZ	LYS	R	81	-101.257	79.945	42.284	1	201.12	N
ATOM	10263	C	LYS	R	81	-97.021	78.42	46.295	1	119.21	C
ATOM	10264	O	LYS	R	81	-96.285	77.476	46.011	1	134.89	O
ATOM	10265	N	MET	R	82	-97.06	78.982	47.5	1	110.47	N
ATOM	10266	CA	MET	R	82	-96.49	78.323	48.656	1	99.74	C
ATOM	10267	CB	MET	R	82	-96.294	79.282	49.818	1	104.5	C
ATOM	10268	CG	MET	R	82	-95.171	80.279	49.605	1	109.97	C
ATOM	10269	SD	MET	R	82	-94.142	80.5	51.072	1	122.51	S
ATOM	10270	CE	MET	R	82	-93.265	78.936	51.118	1	127.89	C
ATOM	10271	C	MET	R	82	-97.441	77.218	49.052	1	96.45	C
ATOM	10272	O	MET	R	82	-98.622	77.24	48.692	1	93.95	O
ATOM	10273	N	ASN	R	83	-96.909	76.258	49.8	1	97.58	N
ATOM	10274	CA	ASN	R	83	-97.615	75.026	50.095	1	93.91	C
ATOM	10275	CB	ASN	R	83	-97.33	74.017	48.989	1	96.83	C
ATOM	10276	CG	ASN	R	83	-98.538	73.21	48.627	1	102.22	C
ATOM	10277	OD1	ASN	R	83	-99.668	73.724	48.614	1	98.54	O
ATOM	10278	ND2	ASN	R	83	-98.316	71.939	48.311	1	105.03	N
ATOM	10279	C	ASN	R	83	-97.209	74.445	51.428	1	91.07	C
ATOM	10280	O	ASN	R	83	-96.092	74.702	51.901	1	78.12	O
ATOM	10281	N	SER	R	84	-98.116	73.638	51.996	1	96.31	N
ATOM	10282	CA	SER	R	84	-98.033	73.144	53.386	1	98.38	C
ATOM	10283	CB	SER	R	84	-97.474	71.71	53.479	1	104.08	C
ATOM	10284	OG	SER	R	84	-96.419	71.471	52.562	1	116.43	O
ATOM	10285	C	SER	R	84	-97.293	74.155	54.271	1	91.5	C
ATOM	10286	O	SER	R	84	-96.201	73.904	54.822	1	77.88	O
ATOM	10287	N	LEU	R	85	-97.948	75.316	54.347	1	86.38	N
ATOM	10288	CA	LEU	R	85	-97.469	76.512	55.016	1	83.84	C
ATOM	10289	CB	LEU	R	85	-98.553	77.583	55.007	1	82.86	C
ATOM	10290	CG	LEU	R	85	-98.857	78.174	53.63	1	83.6	C
ATOM	10291	CD1	LEU	R	85	-100.245	78.793	53.608	1	84.17	C
ATOM	10292	CD2	LEU	R	85	-97.797	79.19	53.232	1	84.11	C
ATOM	10293	C	LEU	R	85	-97.106	76.25	56.452	1	87.36	C

ATOM	10294	O	LEU	R	85	-97.908	75.71	57.203	1	88.62	O
ATOM	10295	N	GLN	R	86	-95.902	76.656	56.826	1	91.8	N
ATOM	10296	CA	GLN	R	86	-95.465	76.58	58.209	1	99.57	C
ATOM	10297	CB	GLN	R	86	-94.017	76.077	58.348	1	110.04	C
ATOM	10298	CG	GLN	R	86	-93.05	76.436	57.227	1	115.38	C
ATOM	10299	CD	GLN	R	86	-91.655	75.882	57.454	1	122.85	C
ATOM	10300	OE1	GLN	R	86	-91.425	74.68	57.29	1	116.83	O
ATOM	10301	NE2	GLN	R	86	-90.709	76.759	57.813	1	124.07	N
ATOM	10302	C	GLN	R	86	-95.65	77.967	58.783	1	98.78	C
ATOM	10303	O	GLN	R	86	-95.765	78.933	58.031	1	91.82	O
ATOM	10304	N	THR	R	87	-95.753	78.039	60.109	1	103.11	N
ATOM	10305	CA	THR	R	87	-95.72	79.306	60.849	1	109.58	C
ATOM	10306	CB	THR	R	87	-95.376	79.1	62.348	1	117.11	C
ATOM	10307	OG1	THR	R	87	-95.079	80.371	62.948	1	124.53	O
ATOM	10308	CG2	THR	R	87	-94.162	78.159	62.568	1	116	C
ATOM	10309	C	THR	R	87	-94.736	80.331	60.267	1	114.06	C
ATOM	10310	O	THR	R	87	-95.111	81.483	60.055	1	107.27	O
ATOM	10311	N	ASP	R	88	-93.501	79.88	59.998	1	114.99	N
ATOM	10312	CA	ASP	R	88	-92.377	80.73	59.555	1	104.35	C
ATOM	10313	CB	ASP	R	88	-91.193	79.862	59.085	1	103.27	C
ATOM	10314	CG	ASP	R	88	-89.834	80.504	59.351	1	114.89	C
ATOM	10315	OD1	ASP	R	88	-89.735	81.747	59.496	1	117.6	O
ATOM	10316	OD2	ASP	R	88	-88.843	79.745	59.415	1	130.94	O
ATOM	10317	C	ASP	R	88	-92.787	81.677	58.436	1	101.49	C
ATOM	10318	O	ASP	R	88	-92.583	82.882	58.534	1	104.56	O
ATOM	10319	N	ASP	R	89	-93.447	81.122	57.421	1	103.06	N
ATOM	10320	CA	ASP	R	89	-93.835	81.839	56.189	1	100.88	C
ATOM	10321	CB	ASP	R	89	-94.614	80.9	55.262	1	106.61	C
ATOM	10322	CG	ASP	R	89	-93.813	79.677	54.856	1	112.45	C
ATOM	10323	OD1	ASP	R	89	-92.714	79.443	55.403	1	118.56	O
ATOM	10324	OD2	ASP	R	89	-94.294	78.931	53.99	1	112.5	O
ATOM	10325	C	ASP	R	89	-94.661	83.105	56.38	1	99.83	C
ATOM	10326	O	ASP	R	89	-95.014	83.759	55.393	1	92.91	O
ATOM	10327	N	THR	R	90	-95.029	83.402	57.631	1	105.89	N
ATOM	10328	CA	THR	R	90	-95.446	84.739	58.049	1	108.07	C
ATOM	10329	CB	THR	R	90	-95.451	84.871	59.584	1	112.45	C
ATOM	10330	OG1	THR	R	90	-96.079	83.723	60.164	1	122.76	O
ATOM	10331	CG2	THR	R	90	-96.19	86.134	60.024	1	115.07	C
ATOM	10332	C	THR	R	90	-94.466	85.757	57.496	1	106.07	C
ATOM	10333	O	THR	R	90	-93.275	85.725	57.839	1	97.82	O
ATOM	10334	N	ALA	R	91	-94.959	86.644	56.633	1	104.68	N
ATOM	10335	CA	ALA	R	91	-94.073	87.584	55.951	1	106.3	C
ATOM	10336	CB	ALA	R	91	-93.036	86.814	55.128	1	112.53	C
ATOM	10337	C	ALA	R	91	-94.777	88.618	55.07	1	101.63	C

ATOM	10338	O	ALA	R	91	-95.978	88.528	54.798	1	93.59	O
ATOM	10339	N	MET	R	92	-93.981	89.598	54.648	1	99.07	N
ATOM	10340	CA	MET	R	92	-94.348	90.576	53.638	1	103.57	C
ATOM	10341	CB	MET	R	92	-93.739	91.928	54.006	1	104.88	C
ATOM	10342	CG	MET	R	92	-93.91	93.014	52.957	1	106.2	C
ATOM	10343	SD	MET	R	92	-95.625	93.455	52.642	1	101.47	S
ATOM	10344	CE	MET	R	92	-95.837	94.786	53.824	1	107.03	C
ATOM	10345	C	MET	R	92	-93.805	90.118	52.287	1	108.01	C
ATOM	10346	O	MET	R	92	-92.583	90.031	52.124	1	112.29	O
ATOM	10347	N	TYR	R	93	-94.704	89.869	51.326	1	108.16	N
ATOM	10348	CA	TYR	R	93	-94.351	89.288	50.015	1	110.94	C
ATOM	10349	CB	TYR	R	93	-95.318	88.153	49.657	1	113.41	C
ATOM	10350	CG	TYR	R	93	-95.052	86.886	50.426	1	109.54	C
ATOM	10351	CD1	TYR	R	93	-95.339	86.811	51.783	1	109.15	C
ATOM	10352	CE1	TYR	R	93	-95.09	85.66	52.508	1	107.88	C
ATOM	10353	CZ	TYR	R	93	-94.549	84.565	51.881	1	103.82	C
ATOM	10354	OH	TYR	R	93	-94.295	83.433	52.621	1	101.01	O
ATOM	10355	CE2	TYR	R	93	-94.252	84.613	50.53	1	107.36	C
ATOM	10356	CD2	TYR	R	93	-94.502	85.769	49.809	1	105.64	C
ATOM	10357	C	TYR	R	93	-94.352	90.324	48.889	1	113.34	C
ATOM	10358	O	TYR	R	93	-95.386	90.935	48.61	1	116.76	O
ATOM	10359	N	TYR	R	94	-93.193	90.493	48.242	1	115.73	N
ATOM	10360	CA	TYR	R	94	-93.017	91.434	47.125	1	111.32	C
ATOM	10361	CB	TYR	R	94	-91.768	92.289	47.333	1	105.55	C
ATOM	10362	CG	TYR	R	94	-91.794	93.198	48.544	1	102.75	C
ATOM	10363	CD1	TYR	R	94	-92.792	94.163	48.703	1	105.51	C
ATOM	10364	CE1	TYR	R	94	-92.794	95.007	49.804	1	109.16	C
ATOM	10365	CZ	TYR	R	94	-91.787	94.895	50.762	1	111.25	C
ATOM	10366	OH	TYR	R	94	-91.774	95.728	51.865	1	121.68	O
ATOM	10367	CE2	TYR	R	94	-90.788	93.951	50.618	1	100.37	C
ATOM	10368	CD2	TYR	R	94	-90.793	93.119	49.515	1	97.32	C
ATOM	10369	C	TYR	R	94	-92.86	90.706	45.793	1	106.53	C
ATOM	10370	O	TYR	R	94	-92.196	89.661	45.722	1	97.75	O
ATOM	10371	N	CYS	R	95	-93.439	91.288	44.741	1	100.43	N
ATOM	10372	CA	CYS	R	95	-93.306	90.765	43.387	1	96.5	C
ATOM	10373	CB	CYS	R	95	-94.685	90.468	42.817	1	95.64	C
ATOM	10374	SG	CYS	R	95	-95.65	91.896	42.311	1	100.75	S
ATOM	10375	C	CYS	R	95	-92.504	91.707	42.473	1	92.84	C
ATOM	10376	O	CYS	R	95	-93.056	92.366	41.606	1	83.49	O
ATOM	10377	N	ALA	R	96	-91.183	91.722	42.656	1	98.63	N
ATOM	10378	CA	ALA	R	96	-90.273	92.586	41.879	1	95.01	C
ATOM	10379	CB	ALA	R	96	-88.875	92.6	42.495	1	92.63	C
ATOM	10380	C	ALA	R	96	-90.171	92.181	40.417	1	94.89	C
ATOM	10381	O	ALA	R	96	-90.745	91.175	39.994	1	99.01	O

ATOM	10382	N	ARG	R	97	-89.467	93.019	39.656	1	97.16	N
ATOM	10383	CA	ARG	R	97	-88.922	92.68	38.329	1	91.59	C
ATOM	10384	CB	ARG	R	97	-89.641	93.434	37.191	1	84.52	C
ATOM	10385	C	ARG	R	97	-87.443	93.04	38.335	1	83.66	C
ATOM	10386	O	ARG	R	97	-86.989	93.763	37.436	1	77.42	O
ATOM	10387	N	ILE	R	98	-86.713	92.553	39.356	1	78.99	N
ATOM	10388	CA	ILE	R	98	-85.256	92.726	39.446	1	85.01	C
ATOM	10389	CB	ILE	R	98	-84.61	91.836	40.532	1	72.48	C
ATOM	10390	C	ILE	R	98	-84.723	92.331	38.076	1	100.57	C
ATOM	10391	O	ILE	R	98	-85.082	91.261	37.588	1	126.99	O
ATOM	10392	N	HIS	R	99	-83.913	93.15	37.406	1	106.54	N
ATOM	10393	CA	HIS	R	99	-83.123	94.236	37.982	1	112.7	C
ATOM	10394	CB	HIS	R	99	-82.31	93.736	39.181	1	124.16	C
ATOM	10395	C	HIS	R	99	-82.163	94.789	36.929	1	115.87	C
ATOM	10396	O	HIS	R	99	-81.886	95.996	36.894	1	110.96	O
ATOM	10397	N	THR	R	100	-81.629	93.872	36.117	1	125.96	N
ATOM	10398	CA	THR	R	100	-80.848	94.157	34.901	1	125.61	C
ATOM	10399	CB	THR	R	100	-81.675	93.852	33.563	1	108.37	C
ATOM	10400	OG1	THR	R	100	-83.088	93.756	33.829	1	84.13	O
ATOM	10401	CG2	THR	R	100	-81.238	92.553	32.878	1	102.27	C
ATOM	10402	C	THR	R	100	-80.191	95.563	34.964	1	123.39	C
ATOM	10403	O	THR	R	100	-79.205	95.756	35.697	1	103.8	O
ATOM	10404	N	THR	R	101	-80.828	96.518	34.277	1	121.99	N
ATOM	10405	CA	THR	R	101	-80.329	97.841	33.931	1	121.23	C
ATOM	10406	CB	THR	R	101	-78.836	98.09	34.362	1	137.86	C
ATOM	10407	OG1	THR	R	101	-78.696	97.973	35.792	1	131.47	O
ATOM	10408	CG2	THR	R	101	-78.339	99.496	33.942	1	143.89	C
ATOM	10409	C	THR	R	101	-80.528	98.014	32.385	1	109.52	C
ATOM	10410	O	THR	R	101	-79.531	97.972	31.676	1	123.59	O
ATOM	10411	N	ALA	R	102	-81.73	98.147	31.79	1	93.73	N
ATOM	10412	CA	ALA	R	102	-83.11	97.894	32.286	1	100.2	C
ATOM	10413	CB	ALA	R	102	-83.485	96.433	32.065	1	100.01	C
ATOM	10414	C	ALA	R	102	-83.536	98.371	33.682	1	110.23	C
ATOM	10415	O	ALA	R	102	-82.778	99.04	34.363	1	127.31	O
ATOM	10416	N	GLY	R	103	-84.768	98.06	34.089	1	113.12	N
ATOM	10417	CA	GLY	R	103	-85.321	98.599	35.339	1	123.52	C
ATOM	10418	C	GLY	R	103	-84.974	97.833	36.611	1	131.96	C
ATOM	10419	O	GLY	R	103	-84.056	97.025	36.634	1	126.52	O
ATOM	10420	N	SER	R	104	-85.706	98.149	37.681	1	135.23	N
ATOM	10421	CA	SER	R	104	-85.82	97.299	38.879	1	118.53	C
ATOM	10422	CB	SER	R	104	-84.58	97.432	39.771	1	116.08	C
ATOM	10423	OG	SER	R	104	-84.748	96.759	41.007	1	117.83	O
ATOM	10424	C	SER	R	104	-87.108	97.679	39.636	1	105.71	C
ATOM	10425	O	SER	R	104	-87.056	98.196	40.741	1	97.67	O

ATOM	10426	N	TYR	R	105	-88.252	97.424	39.005	1	104.35	N
ATOM	10427	CA	TYR	R	105	-89.569	97.816	39.518	1	114.03	C
ATOM	10428	CB	TYR	R	105	-90.628	97.772	38.408	1	123.11	C
ATOM	10429	CG	TYR	R	105	-90.495	98.72	37.211	1	129.17	C
ATOM	10430	CD1	TYR	R	105	-89.26	99.301	36.828	1	118.15	C
ATOM	10431	CE1	TYR	R	105	-89.177	100.132	35.716	1	124.08	C
ATOM	10432	CZ	TYR	R	105	-90.329	100.382	34.955	1	137.03	C
ATOM	10433	OH	TYR	R	105	-90.279	101.206	33.842	1	139.37	O
ATOM	10434	CE2	TYR	R	105	-91.539	99.802	35.31	1	129.06	C
ATOM	10435	CD2	TYR	R	105	-91.622	98.982	36.414	1	126.88	C
ATOM	10436	C	TYR	R	105	-90.012	96.844	40.608	1	115.95	C
ATOM	10437	O	TYR	R	105	-89.579	95.696	40.622	1	122.85	O
ATOM	10438	N	TRP	R	106	-90.871	97.306	41.518	1	121.19	N
ATOM	10439	CA	TRP	R	106	-91.368	96.484	42.637	1	118.17	C
ATOM	10440	CB	TRP	R	106	-90.587	96.789	43.912	1	111.3	C
ATOM	10441	CG	TRP	R	106	-89.206	96.269	43.88	1	108.87	C
ATOM	10442	CD1	TRP	R	106	-88.197	96.701	43.095	1	109.34	C
ATOM	10443	NE1	TRP	R	106	-87.056	95.987	43.336	1	108.01	N
ATOM	10444	CE2	TRP	R	106	-87.317	95.073	44.316	1	102.88	C
ATOM	10445	CD2	TRP	R	106	-88.669	95.226	44.682	1	105.59	C
ATOM	10446	CE3	TRP	R	106	-89.197	94.404	45.676	1	110.07	C
ATOM	10447	CZ3	TRP	R	106	-88.369	93.464	46.265	1	113.4	C
ATOM	10448	CH2	TRP	R	106	-87.023	93.335	45.876	1	107.42	C
ATOM	10449	CZ2	TRP	R	106	-86.485	94.13	44.905	1	103.19	C
ATOM	10450	C	TRP	R	106	-92.848	96.696	42.914	1	122.7	C
ATOM	10451	O	TRP	R	106	-93.419	97.722	42.559	1	132.82	O
ATOM	10452	N	GLY	R	107	-93.464	95.706	43.552	1	122.95	N
ATOM	10453	CA	GLY	R	107	-94.749	95.905	44.197	1	121.03	C
ATOM	10454	C	GLY	R	107	-94.464	96.751	45.411	1	125.44	C
ATOM	10455	O	GLY	R	107	-93.302	96.913	45.789	1	118.76	O
ATOM	10456	N	GLN	R	108	-95.512	97.314	46.003	1	135.43	N
ATOM	10457	CA	GLN	R	108	-95.353	98.121	47.239	1	144.54	C
ATOM	10458	CB	GLN	R	108	-96.283	99.363	47.328	1	147.28	C
ATOM	10459	CG	GLN	R	108	-97.533	99.388	46.46	1	154.41	C
ATOM	10460	CD	GLN	R	108	-98.463	98.22	46.719	1	162.39	C
ATOM	10461	OE1	GLN	R	108	-98.203	97.096	46.275	1	153.26	O
ATOM	10462	NE2	GLN	R	108	-99.558	98.477	47.428	1	168.83	N
ATOM	10463	C	GLN	R	108	-95.43	97.256	48.499	1	134.33	C
ATOM	10464	O	GLN	R	108	-94.758	97.553	49.49	1	119.99	O
ATOM	10465	N	GLY	R	109	-96.228	96.188	48.445	1	130.28	N
ATOM	10466	CA	GLY	R	109	-96.301	95.211	49.528	1	129.37	C
ATOM	10467	C	GLY	R	109	-97.573	94.378	49.546	1	129.82	C
ATOM	10468	O	GLY	R	109	-98.594	94.757	48.96	1	127.76	O
ATOM	10469	N	THR	R	110	-97.473	93.215	50.19	1	123.71	N

ATOM	10470	CA	THR	R	110	-98.623	92.397	50.585	1	116.24	C
ATOM	10471	CB	THR	R	110	-99.095	91.452	49.464	1	112.26	C
ATOM	10472	OG1	THR	R	110	-99.875	92.194	48.522	1	124.57	O
ATOM	10473	CG2	THR	R	110	-99.946	90.288	50.016	1	104.33	C
ATOM	10474	C	THR	R	110	-98.216	91.563	51.785	1	120.53	C
ATOM	10475	O	THR	R	110	-97.325	90.714	51.672	1	127.14	O
ATOM	10476	N	LEU	R	111	-98.859	91.82	52.927	1	121.19	N
ATOM	10477	CA	LEU	R	111	-98.689	90.989	54.12	1	108.98	C
ATOM	10478	CB	LEU	R	111	-99.135	91.712	55.404	1	103.1	C
ATOM	10479	CG	LEU	R	111	-98.042	92.472	56.166	1	110.84	C
ATOM	10480	CD1	LEU	R	111	-98.629	93.385	57.238	1	110.9	C
ATOM	10481	CD2	LEU	R	111	-97.033	91.513	56.794	1	116.8	C
ATOM	10482	C	LEU	R	111	-99.438	89.664	53.964	1	111.12	C
ATOM	10483	O	LEU	R	111	-100.496	89.57	53.31	1	107.28	O
ATOM	10484	N	VAL	R	112	-98.837	88.638	54.549	1	112.1	N
ATOM	10485	CA	VAL	R	112	-99.436	87.328	54.668	1	117.27	C
ATOM	10486	CB	VAL	R	112	-99.007	86.399	53.501	1	125.63	C
ATOM	10487	CG1	VAL	R	112	-99.105	84.911	53.863	1	121.07	C
ATOM	10488	CG2	VAL	R	112	-99.835	86.716	52.256	1	130.21	C
ATOM	10489	C	VAL	R	112	-98.977	86.818	56.024	1	118.6	C
ATOM	10490	O	VAL	R	112	-97.772	86.624	56.264	1	116.43	O
ATOM	10491	N	THR	R	113	-99.95	86.657	56.912	1	109.38	N
ATOM	10492	CA	THR	R	113	-99.729	86.084	58.223	1	104.76	C
ATOM	10493	CB	THR	R	113	-100.46	86.913	59.289	1	113.77	C
ATOM	10494	OG1	THR	R	113	-101.559	87.589	58.666	1	130.43	O
ATOM	10495	CG2	THR	R	113	-99.533	87.964	59.905	1	114.09	C
ATOM	10496	C	THR	R	113	-100.293	84.677	58.164	1	92.01	C
ATOM	10497	O	THR	R	113	-101.361	84.469	57.583	1	86.25	O
ATOM	10498	N	VAL	R	114	-99.551	83.715	58.706	1	87.37	N
ATOM	10499	CA	VAL	R	114	-100.051	82.355	58.864	1	98.33	C
ATOM	10500	CB	VAL	R	114	-99.325	81.298	57.977	1	107.73	C
ATOM	10501	CG1	VAL	R	114	-99.373	81.703	56.505	1	111.63	C
ATOM	10502	CG2	VAL	R	114	-97.884	81.035	58.413	1	110.27	C
ATOM	10503	C	VAL	R	114	-99.989	81.993	60.333	1	107.04	C
ATOM	10504	O	VAL	R	114	-98.904	81.851	60.919	1	113.52	O
ATOM	10505	N	SER	R	115	-101.167	81.897	60.937	1	111.25	N
ATOM	10506	CA	SER	R	115	-101.275	81.51	62.337	1	116.64	C
ATOM	10507	CB	SER	R	115	-101.286	82.742	63.258	1	118.39	C
ATOM	10508	OG	SER	R	115	-100.423	82.578	64.376	1	116.75	O
ATOM	10509	C	SER	R	115	-102.551	80.709	62.478	1	113.93	C
ATOM	10510	O	SER	R	115	-103.585	81.069	61.901	1	120.09	O
ATOM	10511	N	ALA	R	116	-102.458	79.609	63.217	1	109.13	N
ATOM	10512	CA	ALA	R	116	-103.621	78.812	63.558	1	115.02	C
ATOM	10513	CB	ALA	R	116	-103.186	77.546	64.285	1	116.5	C

ATOM	10514	C	ALA	R	116	-104.597	79.633	64.418	1	120.97	C
ATOM	10515	O	ALA	R	116	-105.812	79.596	64.198	1	122.33	O
ATOM	10516	N	ALA	R	117	-104.041	80.4	65.361	1	126.35	N
ATOM	10517	CA	ALA	R	117	-104.816	81.178	66.333	1	119.5	C
ATOM	10518	CB	ALA	R	117	-103.891	81.936	67.279	1	117.98	C
ATOM	10519	C	ALA	R	117	-105.793	82.143	65.68	1	114.17	C
ATOM	10520	O	ALA	R	117	-105.536	82.693	64.605	1	92.09	O
ATOM	10521	N	SER	R	118	-106.907	82.339	66.378	1	127.72	N
ATOM	10522	CA	SER	R	118	-108.069	83.045	65.861	1	136.68	C
ATOM	10523	CB	SER	R	118	-109.332	82.336	66.356	1	140.94	C
ATOM	10524	OG	SER	R	118	-110.472	82.798	65.656	1	157.14	O
ATOM	10525	C	SER	R	118	-108.077	84.524	66.28	1	132.28	C
ATOM	10526	O	SER	R	118	-107.123	85.011	66.903	1	128.84	O
ATOM	10527	N	THR	R	119	-109.154	85.227	65.926	1	124.24	N
ATOM	10528	CA	THR	R	119	-109.32	86.635	66.28	1	126.62	C
ATOM	10529	CB	THR	R	119	-110.448	87.3	65.467	1	125.01	C
ATOM	10530	OG1	THR	R	119	-110.382	86.852	64.109	1	132.88	O
ATOM	10531	CG2	THR	R	119	-110.327	88.828	65.504	1	119.99	C
ATOM	10532	C	THR	R	119	-109.604	86.813	67.778	1	128.66	C
ATOM	10533	O	THR	R	119	-110.249	85.972	68.403	1	131.23	O
ATOM	10534	N	LYS	R	120	-109.111	87.916	68.334	1	134.28	N
ATOM	10535	CA	LYS	R	120	-109.247	88.231	69.758	1	135.68	C
ATOM	10536	CB	LYS	R	120	-108.455	87.224	70.61	1	134.49	C
ATOM	10537	CG	LYS	R	120	-108.293	87.574	72.088	1	134.74	C
ATOM	10538	CD	LYS	R	120	-108.217	86.32	72.957	1	134.35	C
ATOM	10539	CE	LYS	R	120	-107.459	86.527	74.265	1	132.39	C
ATOM	10540	NZ	LYS	R	120	-107.755	87.808	74.969	1	127.18	N
ATOM	10541	C	LYS	R	120	-108.756	89.665	70.004	1	145.28	C
ATOM	10542	O	LYS	R	120	-107.682	90.055	69.524	1	143.6	O
ATOM	10543	N	GLY	R	121	-109.547	90.441	70.745	1	146.08	N
ATOM	10544	CA	GLY	R	121	-109.16	91.796	71.135	1	139.44	C
ATOM	10545	C	GLY	R	121	-108.015	91.815	72.133	1	135.62	C
ATOM	10546	O	GLY	R	121	-107.576	90.763	72.588	1	137.69	O
ATOM	10547	N	PRO	R	122	-107.538	93.017	72.502	1	135.69	N
ATOM	10548	CA	PRO	R	122	-106.392	93.183	73.398	1	134.31	C
ATOM	10549	CB	PRO	R	122	-106.031	94.655	73.196	1	138.55	C
ATOM	10550	CG	PRO	R	122	-107.356	95.307	72.981	1	143.77	C
ATOM	10551	CD	PRO	R	122	-108.222	94.302	72.264	1	138.27	C
ATOM	10552	C	PRO	R	122	-106.778	92.921	74.849	1	134.73	C
ATOM	10553	O	PRO	R	122	-107.842	92.367	75.122	1	140.99	O
ATOM	10554	N	SER	R	123	-105.912	93.301	75.775	1	129.6	N
ATOM	10555	CA	SER	R	123	-106.292	93.368	77.181	1	131.97	C
ATOM	10556	CB	SER	R	123	-106.31	91.972	77.826	1	132.85	C
ATOM	10557	OG	SER	R	123	-107.524	91.285	77.561	1	126.04	O

ATOM	10558	C	SER	R	123	-105.327	94.294	77.907	1	124.6	C
ATOM	10559	O	SER	R	123	-104.204	93.896	78.207	1	123.17	O
ATOM	10560	N	VAL	R	124	-105.767	95.522	78.181	1	117.37	N
ATOM	10561	CA	VAL	R	124	-104.913	96.513	78.826	1	113.4	C
ATOM	10562	CB	VAL	R	124	-105.421	97.95	78.629	1	110.03	C
ATOM	10563	CG1	VAL	R	124	-104.451	98.938	79.28	1	111.33	C
ATOM	10564	CG2	VAL	R	124	-105.597	98.261	77.147	1	114.38	C
ATOM	10565	C	VAL	R	124	-104.853	96.229	80.317	1	118.39	C
ATOM	10566	O	VAL	R	124	-105.888	96.206	80.978	1	123	O
ATOM	10567	N	PHE	R	125	-103.645	96.011	80.833	1	126.67	N
ATOM	10568	CA	PHE	R	125	-103.417	95.859	82.27	1	141.29	C
ATOM	10569	CB	PHE	R	125	-102.885	94.454	82.602	1	146.76	C
ATOM	10570	CG	PHE	R	125	-103.737	93.33	82.054	1	149.86	C
ATOM	10571	CD1	PHE	R	125	-105.13	93.353	82.173	1	157.06	C
ATOM	10572	CE1	PHE	R	125	-105.912	92.323	81.658	1	161.15	C
ATOM	10573	CZ	PHE	R	125	-105.31	91.244	81.033	1	160.61	C
ATOM	10574	CE2	PHE	R	125	-103.93	91.208	80.904	1	159.6	C
ATOM	10575	CD2	PHE	R	125	-103.15	92.242	81.419	1	153.29	C
ATOM	10576	C	PHE	R	125	-102.454	96.976	82.707	1	146.04	C
ATOM	10577	O	PHE	R	125	-101.27	96.927	82.374	1	144.85	O
ATOM	10578	N	PRO	R	126	-102.972	98.007	83.419	1	148.51	N
ATOM	10579	CA	PRO	R	126	-102.206	99.197	83.826	1	145.09	C
ATOM	10580	CB	PRO	R	126	-103.174	99.913	84.766	1	160.16	C
ATOM	10581	CG	PRO	R	126	-104.516	99.59	84.211	1	157.71	C
ATOM	10582	CD	PRO	R	126	-104.409	98.173	83.733	1	152.01	C
ATOM	10583	C	PRO	R	126	-100.856	98.967	84.531	1	130.17	C
ATOM	10584	O	PRO	R	126	-100.71	98.042	85.33	1	113.66	O
ATOM	10585	N	LEU	R	127	-99.913	99.865	84.251	1	128.7	N
ATOM	10586	CA	LEU	R	127	-98.484	99.664	84.496	1	136.24	C
ATOM	10587	CB	LEU	R	127	-97.807	99.423	83.124	1	138.81	C
ATOM	10588	CG	LEU	R	127	-96.497	98.648	82.935	1	133.74	C
ATOM	10589	CD1	LEU	R	127	-96.557	97.245	83.518	1	136.58	C
ATOM	10590	CD2	LEU	R	127	-96.174	98.571	81.451	1	125.01	C
ATOM	10591	C	LEU	R	127	-97.924	100.906	85.221	1	138.22	C
ATOM	10592	O	LEU	R	127	-97.047	101.614	84.704	1	134.89	O
ATOM	10593	N	ALA	R	128	-98.44	101.15	86.431	1	143.14	N
ATOM	10594	CA	ALA	R	128	-98.29	102.447	87.131	1	144.17	C
ATOM	10595	CB	ALA	R	128	-99.567	102.783	87.908	1	145.98	C
ATOM	10596	C	ALA	R	128	-97.055	102.523	88.053	1	138.95	C
ATOM	10597	O	ALA	R	128	-96.556	101.49	88.5	1	123.45	O
ATOM	10598	N	PRO	R	129	-96.582	103.755	88.361	1	145.97	N
ATOM	10599	CA	PRO	R	129	-95.257	104.002	88.936	1	149.89	C
ATOM	10600	CB	PRO	R	129	-94.881	105.31	88.239	1	153.61	C
ATOM	10601	CG	PRO	R	129	-96.177	106.066	88.234	1	152.09	C

ATOM	10602	CD	PRO	R	129	-97.291	105.042	88.192	1	147.06	C
ATOM	10603	C	PRO	R	129	-95.255	104.191	90.472	1	150.93	C
ATOM	10604	O	PRO	R	129	-96.161	103.711	91.145	1	163.59	O
ATOM	10605	N	SER	R	130	-94.206	104.835	91	1	151.63	N
ATOM	10606	CA	SER	R	130	-94.15	105.461	92.35	1	148.58	C
ATOM	10607	CB	SER	R	130	-95.521	105.962	92.852	1	152.2	C
ATOM	10608	OG	SER	R	130	-95.36	107.009	93.799	1	153.33	O
ATOM	10609	C	SER	R	130	-93.448	104.596	93.411	1	139	C
ATOM	10610	O	SER	R	130	-93.507	103.363	93.364	1	125.82	O
ATOM	10611	N	SER	R	131	-92.794	105.275	94.36	1	130.68	N
ATOM	10612	CA	SER	R	131	-91.828	104.669	95.295	1	128.45	C
ATOM	10613	CB	SER	R	131	-92.511	103.682	96.256	1	125.45	C
ATOM	10614	OG	SER	R	131	-91.577	103.14	97.178	1	122.72	O
ATOM	10615	C	SER	R	131	-90.649	104.001	94.558	1	127.83	C
ATOM	10616	O	SER	R	131	-89.484	104.379	94.732	1	109.13	O
ATOM	10617	N	GLY	R	137	-88.182	111.421	91.305	1	113.47	N
ATOM	10618	CA	GLY	R	137	-87.989	112.7	90.632	1	122.15	C
ATOM	10619	C	GLY	R	137	-88.569	112.689	89.23	1	131.61	C
ATOM	10620	O	GLY	R	137	-89.374	113.557	88.867	1	123.48	O
ATOM	10621	N	THR	R	138	-88.164	111.681	88.456	1	145.34	N
ATOM	10622	CA	THR	R	138	-88.602	111.492	87.065	1	140.94	C
ATOM	10623	CB	THR	R	138	-87.448	111.822	86.066	1	132.91	C
ATOM	10624	OG1	THR	R	138	-87.943	111.821	84.724	1	127.05	O
ATOM	10625	CG2	THR	R	138	-86.235	110.864	86.181	1	126.63	C
ATOM	10626	C	THR	R	138	-89.18	110.068	86.909	1	140.79	C
ATOM	10627	O	THR	R	138	-88.469	109.128	86.547	1	145.94	O
ATOM	10628	N	ALA	R	139	-90.475	109.925	87.212	1	139.46	N
ATOM	10629	CA	ALA	R	139	-91.144	108.611	87.271	1	143.45	C
ATOM	10630	CB	ALA	R	139	-92.028	108.512	88.513	1	136.36	C
ATOM	10631	C	ALA	R	139	-91.966	108.325	86.005	1	152.56	C
ATOM	10632	O	ALA	R	139	-92.75	109.171	85.56	1	141.86	O
ATOM	10633	N	ALA	R	140	-91.783	107.121	85.451	1	157.78	N
ATOM	10634	CA	ALA	R	140	-92.419	106.684	84.201	1	147.13	C
ATOM	10635	CB	ALA	R	140	-91.356	106.21	83.227	1	142.84	C
ATOM	10636	C	ALA	R	140	-93.418	105.559	84.46	1	141.42	C
ATOM	10637	O	ALA	R	140	-93.119	104.618	85.193	1	126.89	O
ATOM	10638	N	LEU	R	141	-94.587	105.655	83.833	1	147.54	N
ATOM	10639	CA	LEU	R	141	-95.662	104.676	84.006	1	156.93	C
ATOM	10640	CB	LEU	R	141	-96.934	105.354	84.555	1	164.89	C
ATOM	10641	CG	LEU	R	141	-97.573	106.52	83.78	1	162	C
ATOM	10642	CD1	LEU	R	141	-99.091	106.469	83.821	1	156.52	C
ATOM	10643	CD2	LEU	R	141	-97.081	107.856	84.319	1	166.1	C
ATOM	10644	C	LEU	R	141	-95.861	103.958	82.664	1	151.54	C
ATOM	10645	O	LEU	R	141	-94.867	103.589	82.036	1	135.31	O

ATOM	10646	N	GLY	R	142	-97.109	103.748	82.233	1	154.69	N
ATOM	10647	CA	GLY	R	142	-97.403	103.136	80.943	1	158.83	C
ATOM	10648	C	GLY	R	142	-98.633	102.246	80.982	1	158.83	C
ATOM	10649	O	GLY	R	142	-99.384	102.243	81.954	1	148.14	O
ATOM	10650	N	CYS	R	143	-98.83	101.506	79.897	1	169.22	N
ATOM	10651	CA	CYS	R	143	-99.837	100.453	79.802	1	178.12	C
ATOM	10652	CB	CYS	R	143	-100.973	100.873	78.862	1	183.74	C
ATOM	10653	SG	CYS	R	143	-102.169	101.983	79.636	1	211.25	S
ATOM	10654	C	CYS	R	143	-99.156	99.193	79.283	1	175.5	C
ATOM	10655	O	CYS	R	143	-98.001	99.242	78.845	1	179.46	O
ATOM	10656	N	LEU	R	144	-99.868	98.07	79.359	1	162.96	N
ATOM	10657	CA	LEU	R	144	-99.411	96.794	78.792	1	137.82	C
ATOM	10658	CB	LEU	R	144	-98.787	95.887	79.873	1	137.41	C
ATOM	10659	CG	LEU	R	144	-98.537	94.381	79.625	1	128.01	C
ATOM	10660	CD1	LEU	R	144	-97.866	94.102	78.284	1	136.45	C
ATOM	10661	CD2	LEU	R	144	-97.71	93.766	80.758	1	118.74	C
ATOM	10662	C	LEU	R	144	-100.587	96.103	78.147	1	119.42	C
ATOM	10663	O	LEU	R	144	-101.388	95.484	78.839	1	110.54	O
ATOM	10664	N	VAL	R	145	-100.692	96.23	76.827	1	118.18	N
ATOM	10665	CA	VAL	R	145	-101.654	95.444	76.047	1	127.28	C
ATOM	10666	CB	VAL	R	145	-101.829	95.977	74.596	1	122.24	C
ATOM	10667	CG1	VAL	R	145	-102.747	95.062	73.79	1	123.15	C
ATOM	10668	CG2	VAL	R	145	-102.369	97.407	74.591	1	122.76	C
ATOM	10669	C	VAL	R	145	-101.166	93.989	76.015	1	129.07	C
ATOM	10670	O	VAL	R	145	-99.972	93.738	75.867	1	144.54	O
ATOM	10671	N	LYS	R	146	-102.081	93.039	76.192	1	124.36	N
ATOM	10672	CA	LYS	R	146	-101.756	91.626	76.017	1	115.2	C
ATOM	10673	CB	LYS	R	146	-101.607	90.919	77.363	1	109.38	C
ATOM	10674	CG	LYS	R	146	-100.478	89.909	77.363	1	106.92	C
ATOM	10675	CD	LYS	R	146	-100.547	88.956	78.546	1	109.04	C
ATOM	10676	CE	LYS	R	146	-99.167	88.417	78.898	1	109.01	C
ATOM	10677	NZ	LYS	R	146	-98.262	89.482	79.424	1	102.09	N
ATOM	10678	C	LYS	R	146	-102.799	90.908	75.18	1	111.62	C
ATOM	10679	O	LYS	R	146	-103.954	91.345	75.089	1	104.27	O
ATOM	10680	N	ASP	R	147	-102.343	89.822	74.554	1	105.24	N
ATOM	10681	CA	ASP	R	147	-103.18	88.874	73.854	1	102.73	C
ATOM	10682	CB	ASP	R	147	-104.043	88.072	74.848	1	108.32	C
ATOM	10683	CG	ASP	R	147	-103.223	87.333	75.922	1	108.8	C
ATOM	10684	OD1	ASP	R	147	-101.979	87.457	75.956	1	101.65	O
ATOM	10685	OD2	ASP	R	147	-103.849	86.621	76.743	1	110.85	O
ATOM	10686	C	ASP	R	147	-104.053	89.556	72.807	1	103.94	C
ATOM	10687	O	ASP	R	147	-105.158	89.979	73.109	1	105.52	O
ATOM	10688	N	TYR	R	148	-103.543	89.685	71.585	1	114.03	N
ATOM	10689	CA	TYR	R	148	-104.353	90.165	70.454	1	122.92	C

ATOM	10690	CB	TYR	R	148	-104.379	91.712	70.382	1	132.82	C
ATOM	10691	CG	TYR	R	148	-103.042	92.401	70.144	1	133.05	C
ATOM	10692	CD1	TYR	R	148	-102.032	92.385	71.114	1	133.41	C
ATOM	10693	CE1	TYR	R	148	-100.814	93.016	70.899	1	128.36	C
ATOM	10694	CZ	TYR	R	148	-100.597	93.681	69.709	1	131.87	C
ATOM	10695	OH	TYR	R	148	-99.403	94.306	69.473	1	140.79	O
ATOM	10696	CE2	TYR	R	148	-101.582	93.722	68.74	1	134.08	C
ATOM	10697	CD2	TYR	R	148	-102.798	93.097	68.964	1	131.7	C
ATOM	10698	C	TYR	R	148	-103.904	89.53	69.131	1	125.18	C
ATOM	10699	O	TYR	R	148	-102.728	89.197	68.959	1	112.99	O
ATOM	10700	N	PHE	R	149	-104.87	89.334	68.231	1	134.93	N
ATOM	10701	CA	PHE	R	149	-104.654	88.737	66.898	1	139.22	C
ATOM	10702	CB	PHE	R	149	-104.421	87.22	66.99	1	137.89	C
ATOM	10703	CG	PHE	R	149	-104.011	86.581	65.682	1	137.05	C
ATOM	10704	CD1	PHE	R	149	-104.967	86.182	64.749	1	139.46	C
ATOM	10705	CE1	PHE	R	149	-104.589	85.593	63.546	1	137.2	C
ATOM	10706	CZ	PHE	R	149	-103.246	85.398	63.26	1	131.55	C
ATOM	10707	CE2	PHE	R	149	-102.282	85.784	64.181	1	130.92	C
ATOM	10708	CD2	PHE	R	149	-102.664	86.37	65.382	1	134.41	C
ATOM	10709	C	PHE	R	149	-105.908	89.018	66.056	1	136.51	C
ATOM	10710	O	PHE	R	149	-107.008	88.793	66.538	1	145.25	O
ATOM	10711	N	PRO	R	150	-105.789	89.507	64.824	1	134.32	N
ATOM	10712	CA	PRO	R	150	-104.541	89.741	64.108	1	132.12	C
ATOM	10713	CB	PRO	R	150	-105.045	89.971	62.68	1	135.33	C
ATOM	10714	CG	PRO	R	150	-106.338	90.696	62.878	1	136.65	C
ATOM	10715	CD	PRO	R	150	-106.939	90.128	64.137	1	137.59	C
ATOM	10716	C	PRO	R	150	-103.755	90.971	64.589	1	126.75	C
ATOM	10717	O	PRO	R	150	-104.08	91.549	65.629	1	112.01	O
ATOM	10718	N	GLU	R	151	-102.709	91.326	63.839	1	131.6	N
ATOM	10719	CA	GLU	R	151	-102.086	92.654	63.913	1	132.58	C
ATOM	10720	CB	GLU	R	151	-100.578	92.578	63.634	1	124.71	C
ATOM	10721	CG	GLU	R	151	-99.721	92.411	64.874	1	118.86	C
ATOM	10722	CD	GLU	R	151	-98.424	93.178	64.785	1	125.74	C
ATOM	10723	OE1	GLU	R	151	-98.46	94.42	64.926	1	132.4	O
ATOM	10724	OE2	GLU	R	151	-97.369	92.541	64.577	1	132.47	O
ATOM	10725	C	GLU	R	151	-102.751	93.613	62.903	1	138.46	C
ATOM	10726	O	GLU	R	151	-103.434	93.149	61.982	1	138.23	O
ATOM	10727	N	PRO	R	152	-102.581	94.934	63.052	1	143.68	N
ATOM	10728	CA	PRO	R	152	-101.909	95.582	64.18	1	134.62	C
ATOM	10729	CB	PRO	R	152	-101.01	96.61	63.493	1	144.49	C
ATOM	10730	CG	PRO	R	152	-101.762	96.993	62.265	1	150.95	C
ATOM	10731	CD	PRO	R	152	-102.51	95.761	61.829	1	155.97	C
ATOM	10732	C	PRO	R	152	-102.9	96.281	65.095	1	129.55	C
ATOM	10733	O	PRO	R	152	-104.064	96.463	64.725	1	115.17	O

ATOM	10734	N	VAL	R	153	-102.415	96.662	66.277	1	145.08	N
ATOM	10735	CA	VAL	R	153	-103.172	97.459	67.253	1	161.49	C
ATOM	10736	CB	VAL	R	153	-103.227	96.776	68.645	1	167.07	C
ATOM	10737	CG1	VAL	R	153	-101.883	96.835	69.374	1	161.16	C
ATOM	10738	CG2	VAL	R	153	-104.314	97.406	69.505	1	179.17	C
ATOM	10739	C	VAL	R	153	-102.548	98.85	67.38	1	165.41	C
ATOM	10740	O	VAL	R	153	-101.326	98.993	67.263	1	170.69	O
ATOM	10741	N	THR	R	154	-103.384	99.859	67.641	1	164.51	N
ATOM	10742	CA	THR	R	154	-102.944	101.265	67.674	1	160.9	C
ATOM	10743	CB	THR	R	154	-103.535	102.061	66.475	1	156.19	C
ATOM	10744	OG1	THR	R	154	-104.044	101.161	65.476	1	142.77	O
ATOM	10745	CG2	THR	R	154	-102.47	102.965	65.845	1	152.01	C
ATOM	10746	C	THR	R	154	-103.305	101.928	69.03	1	159.52	C
ATOM	10747	O	THR	R	154	-104.432	101.78	69.517	1	143.58	O
ATOM	10748	N	VAL	R	155	-102.338	102.651	69.618	1	161.2	N
ATOM	10749	CA	VAL	R	155	-102.427	103.195	70.994	1	171.99	C
ATOM	10750	CB	VAL	R	155	-101.544	102.378	71.983	1	182.6	C
ATOM	10751	CG1	VAL	R	155	-101.686	102.878	73.424	1	179.48	C
ATOM	10752	CG2	VAL	R	155	-101.882	100.892	71.903	1	191.61	C
ATOM	10753	C	VAL	R	155	-102.009	104.676	71.047	1	176.61	C
ATOM	10754	O	VAL	R	155	-101.181	105.124	70.247	1	163.33	O
ATOM	10755	N	SER	R	156	-102.594	105.414	72	1	188.87	N
ATOM	10756	CA	SER	R	156	-102.325	106.845	72.227	1	183.43	C
ATOM	10757	CB	SER	R	156	-103.405	107.671	71.507	1	183.76	C
ATOM	10758	OG	SER	R	156	-104.711	107.291	71.908	1	174.68	O
ATOM	10759	C	SER	R	156	-102.258	107.166	73.744	1	175.58	C
ATOM	10760	O	SER	R	156	-102.176	106.244	74.563	1	167.15	O
ATOM	10761	N	TRP	R	157	-102.248	108.456	74.106	1	173.41	N
ATOM	10762	CA	TRP	R	157	-102.272	108.904	75.514	1	179.08	C
ATOM	10763	CB	TRP	R	157	-100.839	109.087	76.025	1	171.06	C
ATOM	10764	CG	TRP	R	157	-100.142	107.811	76.366	1	160.12	C
ATOM	10765	CD1	TRP	R	157	-99.284	107.113	75.575	1	161.03	C
ATOM	10766	NE1	TRP	R	157	-98.839	105.993	76.233	1	162.29	N
ATOM	10767	CE2	TRP	R	157	-99.411	105.951	77.477	1	154.27	C
ATOM	10768	CD2	TRP	R	157	-100.243	107.082	77.595	1	152.62	C
ATOM	10769	CE3	TRP	R	157	-100.954	107.276	78.787	1	158.3	C
ATOM	10770	CZ3	TRP	R	157	-100.813	106.339	79.817	1	155.44	C
ATOM	10771	CH2	TRP	R	157	-99.975	105.226	79.669	1	149.88	C
ATOM	10772	CZ2	TRP	R	157	-99.27	105.013	78.508	1	152.52	C
ATOM	10773	C	TRP	R	157	-103.06	110.22	75.71	1	182.8	C
ATOM	10774	O	TRP	R	157	-102.561	111.297	75.361	1	182.35	O
ATOM	10775	N	ASN	R	158	-104.264	110.119	76.292	1	177.03	N
ATOM	10776	CA	ASN	R	158	-105.2	111.25	76.472	1	169.44	C
ATOM	10777	CB	ASN	R	158	-104.628	112.318	77.416	1	168.93	C

ATOM	10778	CG	ASN	R	158	-104.644	111.891	78.855	1	166.45	C
ATOM	10779	OD1	ASN	R	158	-105.535	112.28	79.611	1	170.29	O
ATOM	10780	ND2	ASN	R	158	-103.656	111.099	79.254	1	157.69	N
ATOM	10781	C	ASN	R	158	-105.63	111.895	75.15	1	170.12	C
ATOM	10782	O	ASN	R	158	-105.32	113.062	74.882	1	172.19	O
ATOM	10783	N	SER	R	159	-106.325	111.116	74.321	1	168.91	N
ATOM	10784	CA	SER	R	159	-106.758	111.536	72.971	1	168.59	C
ATOM	10785	CB	SER	R	159	-107.886	112.574	73.075	1	172.24	C
ATOM	10786	OG	SER	R	159	-108.965	112.066	73.839	1	180.46	O
ATOM	10787	C	SER	R	159	-105.629	112.047	72.042	1	160.25	C
ATOM	10788	O	SER	R	159	-105.897	112.775	71.078	1	151.82	O
ATOM	10789	N	GLY	R	160	-104.388	111.633	72.314	1	154.63	N
ATOM	10790	CA	GLY	R	160	-103.203	112.105	71.587	1	156.66	C
ATOM	10791	C	GLY	R	160	-102.498	113.315	72.185	1	158.56	C
ATOM	10792	O	GLY	R	160	-101.733	113.991	71.481	1	158.55	O
ATOM	10793	N	ALA	R	161	-102.726	113.576	73.476	1	152.77	N
ATOM	10794	CA	ALA	R	161	-102.133	114.731	74.149	1	151.08	C
ATOM	10795	CB	ALA	R	161	-102.755	114.946	75.523	1	147.27	C
ATOM	10796	C	ALA	R	161	-100.618	114.564	74.25	1	159.37	C
ATOM	10797	O	ALA	R	161	-99.877	115.226	73.512	1	155.31	O
ATOM	10798	N	LEU	R	162	-100.162	113.655	75.115	1	167.47	N
ATOM	10799	CA	LEU	R	162	-98.727	113.446	75.322	1	170.02	C
ATOM	10800	CB	LEU	R	162	-98.456	112.8	76.694	1	167.23	C
ATOM	10801	CG	LEU	R	162	-97.008	112.758	77.22	1	163.01	C
ATOM	10802	CD1	LEU	R	162	-96.257	114.075	77.054	1	160.02	C
ATOM	10803	CD2	LEU	R	162	-97.015	112.358	78.686	1	165.19	C
ATOM	10804	C	LEU	R	162	-98.14	112.601	74.183	1	160.12	C
ATOM	10805	O	LEU	R	162	-98.472	111.419	74.044	1	147.68	O
ATOM	10806	N	THR	R	163	-97.296	113.234	73.363	1	153.67	N
ATOM	10807	CA	THR	R	163	-96.577	112.566	72.273	1	150.59	C
ATOM	10808	CB	THR	R	163	-96.747	113.313	70.925	1	146.3	C
ATOM	10809	OG1	THR	R	163	-95.837	114.421	70.838	1	142.32	O
ATOM	10810	CG2	THR	R	163	-98.187	113.813	70.763	1	145.28	C
ATOM	10811	C	THR	R	163	-95.095	112.415	72.635	1	152.5	C
ATOM	10812	O	THR	R	163	-94.569	111.303	72.647	1	145.05	O
ATOM	10813	N	SER	R	164	-94.431	113.53	72.938	1	161.2	N
ATOM	10814	CA	SER	R	164	-93.017	113.509	73.339	1	167.7	C
ATOM	10815	CB	SER	R	164	-92.359	114.891	73.157	1	171.26	C
ATOM	10816	OG	SER	R	164	-93.319	115.922	72.993	1	170.82	O
ATOM	10817	C	SER	R	164	-92.863	112.981	74.774	1	163.29	C
ATOM	10818	O	SER	R	164	-93.605	113.379	75.678	1	154.5	O
ATOM	10819	N	GLY	R	165	-91.896	112.079	74.96	1	160.3	N
ATOM	10820	CA	GLY	R	165	-91.752	111.306	76.195	1	159.07	C
ATOM	10821	C	GLY	R	165	-92.228	109.87	76.033	1	156.93	C

ATOM	10822	O	GLY	R	165	-91.695	108.973	76.69	1	146.54	O
ATOM	10823	N	VAL	R	166	-93.223	109.656	75.159	1	161.72	N
ATOM	10824	CA	VAL	R	166	-93.799	108.326	74.895	1	157.76	C
ATOM	10825	CB	VAL	R	166	-95.18	108.39	74.163	1	146.11	C
ATOM	10826	CG1	VAL	R	166	-95.775	107.004	73.94	1	142.52	C
ATOM	10827	CG2	VAL	R	166	-96.201	109.223	74.924	1	145.94	C
ATOM	10828	C	VAL	R	166	-92.84	107.51	74.025	1	162.99	C
ATOM	10829	O	VAL	R	166	-92.426	107.948	72.944	1	160.68	O
ATOM	10830	N	HIS	R	167	-92.498	106.321	74.508	1	164.22	N
ATOM	10831	CA	HIS	R	167	-91.818	105.322	73.707	1	166.08	C
ATOM	10832	CB	HIS	R	167	-90.474	104.969	74.334	1	161.33	C
ATOM	10833	CG	HIS	R	167	-89.43	106.014	74.113	1	168.98	C
ATOM	10834	ND1	HIS	R	167	-88.358	105.826	73.27	1	180.51	N
ATOM	10835	CE1	HIS	R	167	-87.61	106.914	73.259	1	185.39	C
ATOM	10836	NE2	HIS	R	167	-88.167	107.807	74.057	1	189.05	N
ATOM	10837	CD2	HIS	R	167	-89.31	107.271	74.599	1	176.45	C
ATOM	10838	C	HIS	R	167	-92.746	104.116	73.594	1	177.58	C
ATOM	10839	O	HIS	R	167	-92.785	103.261	74.486	1	176.55	O
ATOM	10840	N	THR	R	168	-93.528	104.099	72.509	1	181.04	N
ATOM	10841	CA	THR	R	168	-94.371	102.955	72.137	1	173.25	C
ATOM	10842	CB	THR	R	168	-95.439	103.342	71.087	1	168.67	C
ATOM	10843	OG1	THR	R	168	-96.255	104.399	71.604	1	169	O
ATOM	10844	CG2	THR	R	168	-96.333	102.146	70.721	1	163.8	C
ATOM	10845	C	THR	R	168	-93.496	101.853	71.554	1	168.51	C
ATOM	10846	O	THR	R	168	-92.535	102.129	70.824	1	179.24	O
ATOM	10847	N	PHE	R	169	-93.843	100.609	71.866	1	147.3	N
ATOM	10848	CA	PHE	R	169	-93.052	99.47	71.441	1	140.06	C
ATOM	10849	CB	PHE	R	169	-92.757	98.578	72.637	1	130.18	C
ATOM	10850	CG	PHE	R	169	-91.696	99.144	73.51	1	125.14	C
ATOM	10851	CD1	PHE	R	169	-92.019	99.968	74.571	1	123.32	C
ATOM	10852	CE1	PHE	R	169	-91.033	100.525	75.361	1	127.81	C
ATOM	10853	CZ	PHE	R	169	-89.704	100.284	75.073	1	125.29	C
ATOM	10854	CE2	PHE	R	169	-89.37	99.478	74.001	1	127.12	C
ATOM	10855	CD2	PHE	R	169	-90.365	98.925	73.217	1	127.54	C
ATOM	10856	C	PHE	R	169	-93.718	98.718	70.305	1	146.82	C
ATOM	10857	O	PHE	R	169	-94.92	98.885	70.069	1	154.39	O
ATOM	10858	N	PRO	R	170	-92.923	97.925	69.565	1	142.33	N
ATOM	10859	CA	PRO	R	170	-93.477	97.136	68.487	1	133.09	C
ATOM	10860	CB	PRO	R	170	-92.255	96.84	67.626	1	140.72	C
ATOM	10861	CG	PRO	R	170	-91.15	96.708	68.618	1	137.33	C
ATOM	10862	CD	PRO	R	170	-91.464	97.721	69.685	1	137.8	C
ATOM	10863	C	PRO	R	170	-94.045	95.857	69.057	1	123.67	C
ATOM	10864	O	PRO	R	170	-93.696	95.473	70.186	1	117.89	O
ATOM	10865	N	ALA	R	171	-94.891	95.201	68.266	1	112.2	N

ATOM	10866	CA	ALA	R	171	-95.496	93.926	68.643	1	113.82	C
ATOM	10867	CB	ALA	R	171	-96.371	93.416	67.511	1	118.12	C
ATOM	10868	C	ALA	R	171	-94.445	92.876	69.013	1	111.77	C
ATOM	10869	O	ALA	R	171	-93.289	92.981	68.598	1	111.57	O
ATOM	10870	N	VAL	R	172	-94.847	91.888	69.814	1	110.23	N
ATOM	10871	CA	VAL	R	172	-93.953	90.807	70.258	1	110.97	C
ATOM	10872	CB	VAL	R	172	-93.273	91.155	71.614	1	108.97	C
ATOM	10873	CG1	VAL	R	172	-92.305	90.063	72.043	1	104.36	C
ATOM	10874	CG2	VAL	R	172	-92.554	92.499	71.56	1	109.66	C
ATOM	10875	C	VAL	R	172	-94.729	89.481	70.369	1	117.26	C
ATOM	10876	O	VAL	R	172	-95.135	89.091	71.469	1	128.47	O
ATOM	10877	N	LEU	R	173	-94.925	88.797	69.231	1	119.45	N
ATOM	10878	CA	LEU	R	173	-95.708	87.532	69.163	1	120.86	C
ATOM	10879	CB	LEU	R	173	-95.698	86.926	67.749	1	116.31	C
ATOM	10880	CG	LEU	R	173	-96.643	85.731	67.492	1	108.25	C
ATOM	10881	CD1	LEU	R	173	-97.824	86.112	66.607	1	103.54	C
ATOM	10882	CD2	LEU	R	173	-95.892	84.568	66.864	1	108.56	C
ATOM	10883	C	LEU	R	173	-95.203	86.463	70.135	1	122.57	C
ATOM	10884	O	LEU	R	173	-94.081	85.976	69.998	1	119.3	O
ATOM	10885	N	GLN	R	174	-96.046	86.107	71.103	1	126.98	N
ATOM	10886	CA	GLN	R	174	-95.731	85.078	72.094	1	130.46	C
ATOM	10887	CB	GLN	R	174	-96.342	85.476	73.457	1	133.29	C
ATOM	10888	CG	GLN	R	174	-96.133	84.486	74.602	1	142.81	C
ATOM	10889	CD	GLN	R	174	-94.674	84.1	74.821	1	149.53	C
ATOM	10890	OE1	GLN	R	174	-93.763	84.883	74.553	1	166.03	O
ATOM	10891	NE2	GLN	R	174	-94.449	82.885	75.309	1	147.42	N
ATOM	10892	C	GLN	R	174	-96.248	83.708	71.606	1	127.46	C
ATOM	10893	O	GLN	R	174	-97.22	83.644	70.834	1	133.99	O
ATOM	10894	N	SER	R	175	-95.576	82.629	72.022	1	107.96	N
ATOM	10895	CA	SER	R	175	-96.058	81.258	71.799	1	100.35	C
ATOM	10896	CB	SER	R	175	-95.124	80.265	72.472	1	105.22	C
ATOM	10897	OG	SER	R	175	-94.777	80.705	73.775	1	105.54	O
ATOM	10898	C	SER	R	175	-97.472	81.067	72.344	1	102.99	C
ATOM	10899	O	SER	R	175	-97.682	81.118	73.554	1	117.79	O
ATOM	10900	N	SER	R	176	-98.402	80.786	71.434	1	105.6	N
ATOM	10901	CA	SER	R	176	-99.875	80.974	71.568	1	105.05	C
ATOM	10902	CB	SER	R	176	-100.332	81.809	72.769	1	105.04	C
ATOM	10903	OG	SER	R	176	-99.92	83.163	72.654	1	98.55	O
ATOM	10904	C	SER	R	176	-100.361	81.685	70.314	1	107.72	C
ATOM	10905	O	SER	R	176	-101.514	81.511	69.913	1	113.57	O
ATOM	10906	N	GLY	R	177	-99.477	82.493	69.715	1	100.18	N
ATOM	10907	CA	GLY	R	177	-99.764	83.193	68.474	1	101.66	C
ATOM	10908	C	GLY	R	177	-100.592	84.411	68.785	1	107.07	C
ATOM	10909	O	GLY	R	177	-101.513	84.752	68.032	1	101.72	O

ATOM	10910	N	LEU	R	178	-100.247	85.05	69.908	1	116.11	N
ATOM	10911	CA	LEU	R	178	-100.88	86.272	70.387	1	124.49	C
ATOM	10912	CB	LEU	R	178	-101.686	85.985	71.665	1	129.4	C
ATOM	10913	CG	LEU	R	178	-103.111	85.388	71.661	1	126.94	C
ATOM	10914	CD1	LEU	R	178	-103.935	85.845	70.46	1	125.16	C
ATOM	10915	CD2	LEU	R	178	-103.088	83.868	71.753	1	127.57	C
ATOM	10916	C	LEU	R	178	-99.794	87.322	70.689	1	126.03	C
ATOM	10917	O	LEU	R	178	-98.847	87.05	71.441	1	125.71	O
ATOM	10918	N	TYR	R	179	-99.952	88.518	70.126	1	128.52	N
ATOM	10919	CA	TYR	R	179	-98.975	89.601	70.301	1	142.34	C
ATOM	10920	CB	TYR	R	179	-99.101	90.627	69.169	1	146.17	C
ATOM	10921	CG	TYR	R	179	-98.894	90.061	67.772	1	142.99	C
ATOM	10922	CD1	TYR	R	179	-97.618	89.917	67.232	1	133.43	C
ATOM	10923	CE1	TYR	R	179	-97.438	89.412	65.95	1	131.15	C
ATOM	10924	CZ	TYR	R	179	-98.536	89.034	65.195	1	128.09	C
ATOM	10925	OH	TYR	R	179	-98.368	88.535	63.931	1	124.53	O
ATOM	10926	CE2	TYR	R	179	-99.809	89.163	65.707	1	136.56	C
ATOM	10927	CD2	TYR	R	179	-99.984	89.681	66.982	1	144.78	C
ATOM	10928	C	TYR	R	179	-99.125	90.284	71.673	1	146.53	C
ATOM	10929	O	TYR	R	179	-100.208	90.288	72.261	1	139.47	O
ATOM	10930	N	SER	R	180	-98.023	90.841	72.176	1	149.14	N
ATOM	10931	CA	SER	R	180	-97.97	91.45	73.507	1	152.32	C
ATOM	10932	CB	SER	R	180	-97.467	90.43	74.541	1	150.75	C
ATOM	10933	OG	SER	R	180	-98.193	89.21	74.468	1	153.43	O
ATOM	10934	C	SER	R	180	-97.068	92.688	73.489	1	163.73	C
ATOM	10935	O	SER	R	180	-95.864	92.595	73.741	1	175.68	O
ATOM	10936	N	LEU	R	181	-97.673	93.842	73.196	1	170.05	N
ATOM	10937	CA	LEU	R	181	-96.974	95.141	73.083	1	164.55	C
ATOM	10938	CB	LEU	R	181	-97.329	95.798	71.727	1	167.78	C
ATOM	10939	CG	LEU	R	181	-98.012	97.163	71.524	1	168.16	C
ATOM	10940	CD1	LEU	R	181	-97.983	97.567	70.047	1	163.61	C
ATOM	10941	CD2	LEU	R	181	-99.451	97.16	72.031	1	166.43	C
ATOM	10942	C	LEU	R	181	-97.268	96.041	74.3	1	154.51	C
ATOM	10943	O	LEU	R	181	-98.252	95.824	75.002	1	164.99	O
ATOM	10944	N	SER	R	182	-96.409	97.032	74.555	1	144.14	N
ATOM	10945	CA	SER	R	182	-96.499	97.872	75.77	1	138.16	C
ATOM	10946	CB	SER	R	182	-95.446	97.423	76.808	1	131.73	C
ATOM	10947	OG	SER	R	182	-95.47	96.019	77.028	1	122.24	O
ATOM	10948	C	SER	R	182	-96.323	99.376	75.463	1	137.36	C
ATOM	10949	O	SER	R	182	-95.207	99.82	75.207	1	140.74	O
ATOM	10950	N	SER	R	183	-97.415	100.15	75.488	1	139.69	N
ATOM	10951	CA	SER	R	183	-97.345	101.621	75.321	1	137.25	C
ATOM	10952	CB	SER	R	183	-98.691	102.209	74.847	1	126.69	C
ATOM	10953	OG	SER	R	183	-98.531	103.491	74.243	1	103.87	O

ATOM	10954	C	SER	R	183	-96.9	102.244	76.652	1	134.84	C
ATOM	10955	O	SER	R	183	-97.499	101.972	77.693	1	132.46	O
ATOM	10956	N	VAL	R	184	-95.845	103.057	76.609	1	132.15	N
ATOM	10957	CA	VAL	R	184	-95.173	103.561	77.811	1	136	C
ATOM	10958	CB	VAL	R	184	-93.825	102.826	78.016	1	127.76	C
ATOM	10959	CG1	VAL	R	184	-92.99	103.432	79.145	1	117.35	C
ATOM	10960	CG2	VAL	R	184	-94.09	101.354	78.276	1	134.2	C
ATOM	10961	C	VAL	R	184	-94.937	105.058	77.667	1	150.15	C
ATOM	10962	O	VAL	R	184	-94.717	105.543	76.555	1	154	O
ATOM	10963	N	VAL	R	185	-94.99	105.78	78.79	1	156.55	N
ATOM	10964	CA	VAL	R	185	-94.603	107.194	78.824	1	155.3	C
ATOM	10965	CB	VAL	R	185	-95.816	108.129	78.578	1	165.33	C
ATOM	10966	CG1	VAL	R	185	-96.753	108.163	79.784	1	174.45	C
ATOM	10967	CG2	VAL	R	185	-95.355	109.532	78.193	1	161.7	C
ATOM	10968	C	VAL	R	185	-93.869	107.563	80.122	1	143.63	C
ATOM	10969	O	VAL	R	185	-94.064	106.943	81.182	1	118.77	O
ATOM	10970	N	THR	R	186	-93.016	108.576	79.995	1	140.63	N
ATOM	10971	CA	THR	R	186	-92.133	109.039	81.046	1	142.67	C
ATOM	10972	CB	THR	R	186	-90.658	108.955	80.531	1	142.62	C
ATOM	10973	OG1	THR	R	186	-89.767	108.65	81.608	1	132.14	O
ATOM	10974	CG2	THR	R	186	-90.185	110.227	79.773	1	143.54	C
ATOM	10975	C	THR	R	186	-92.598	110.452	81.46	1	150.59	C
ATOM	10976	O	THR	R	186	-92.994	111.247	80.595	1	154.48	O
ATOM	10977	N	VAL	R	187	-92.599	110.731	82.772	1	155.84	N
ATOM	10978	CA	VAL	R	187	-92.945	112.068	83.328	1	155.88	C
ATOM	10979	CB	VAL	R	187	-94.468	112.223	83.679	1	146.75	C
ATOM	10980	CG1	VAL	R	187	-95.254	112.792	82.505	1	141.37	C
ATOM	10981	CG2	VAL	R	187	-95.079	110.923	84.179	1	147.22	C
ATOM	10982	C	VAL	R	187	-92.12	112.429	84.583	1	158.61	C
ATOM	10983	O	VAL	R	187	-91.417	111.573	85.143	1	129.01	O
ATOM	10984	N	PRO	R	188	-92.186	113.713	85.013	1	169.6	N
ATOM	10985	CA	PRO	R	188	-91.753	114.066	86.369	1	164.55	C
ATOM	10986	CB	PRO	R	188	-91.758	115.599	86.342	1	165.16	C
ATOM	10987	CG	PRO	R	188	-92.783	115.951	85.32	1	162.3	C
ATOM	10988	CD	PRO	R	188	-92.593	114.914	84.252	1	166.99	C
ATOM	10989	C	PRO	R	188	-92.758	113.54	87.403	1	159.74	C
ATOM	10990	O	PRO	R	188	-93.971	113.618	87.163	1	150.4	O
ATOM	10991	N	SER	R	189	-92.27	113.037	88.543	1	151.76	N
ATOM	10992	CA	SER	R	189	-93.155	112.477	89.591	1	155.85	C
ATOM	10993	CB	SER	R	189	-92.365	111.691	90.666	1	143.3	C
ATOM	10994	OG	SER	R	189	-91.124	112.292	90.972	1	127.91	O
ATOM	10995	C	SER	R	189	-94.106	113.514	90.228	1	163.23	C
ATOM	10996	O	SER	R	189	-95.007	113.149	90.991	1	164.42	O
ATOM	10997	N	SER	R	190	-93.901	114.795	89.911	1	166.86	N

ATOM	10998	CA	SER	R	190	-94.901	115.835	90.152	1	170.69	C
ATOM	10999	CB	SER	R	190	-94.368	117.224	89.748	1	175.38	C
ATOM	11000	OG	SER	R	190	-94.206	117.344	88.339	1	174.88	O
ATOM	11001	C	SER	R	190	-96.207	115.553	89.406	1	164.64	C
ATOM	11002	O	SER	R	190	-96.224	114.868	88.376	1	137	O
ATOM	11003	N	SER	R	191	-97.291	116.102	89.952	1	174.71	N
ATOM	11004	CA	SER	R	191	-98.642	115.954	89.411	1	173.4	C
ATOM	11005	CB	SER	R	191	-98.787	116.806	88.15	1	179.8	C
ATOM	11006	OG	SER	R	191	-100.138	117.166	87.945	1	181.55	O
ATOM	11007	C	SER	R	191	-98.998	114.477	89.163	1	162.15	C
ATOM	11008	O	SER	R	191	-99.614	114.116	88.158	1	137.67	O
ATOM	11009	N	LEU	R	192	-98.623	113.651	90.138	1	162.66	N
ATOM	11010	CA	LEU	R	192	-98.605	112.194	90.003	1	160.42	C
ATOM	11011	CB	LEU	R	192	-97.688	111.571	91.087	1	164.61	C
ATOM	11012	CG	LEU	R	192	-98.019	110.315	91.914	1	170.92	C
ATOM	11013	CD1	LEU	R	192	-96.732	109.724	92.487	1	170.78	C
ATOM	11014	CD2	LEU	R	192	-99.024	110.594	93.033	1	167.58	C
ATOM	11015	C	LEU	R	192	-100.012	111.585	89.976	1	162.65	C
ATOM	11016	O	LEU	R	192	-100.289	110.724	89.145	1	162.77	O
ATOM	11017	N	GLY	R	193	-100.892	112.042	90.867	1	174.14	N
ATOM	11018	CA	GLY	R	193	-102.298	111.596	90.903	1	180.94	C
ATOM	11019	C	GLY	R	193	-103.334	112.653	90.531	1	184.45	C
ATOM	11020	O	GLY	R	193	-104.539	112.367	90.553	1	173.2	O
ATOM	11021	N	THR	R	194	-102.869	113.86	90.179	1	187.01	N
ATOM	11022	CA	THR	R	194	-103.744	115.027	89.921	1	176.92	C
ATOM	11023	CB	THR	R	194	-103.378	116.257	90.811	1	156.79	C
ATOM	11024	OG1	THR	R	194	-104.139	117.397	90.4	1	151.23	O
ATOM	11025	CG2	THR	R	194	-101.896	116.601	90.764	1	141.99	C
ATOM	11026	C	THR	R	194	-103.829	115.392	88.422	1	184.72	C
ATOM	11027	O	THR	R	194	-104.891	115.824	87.958	1	185.55	O
ATOM	11028	N	GLN	R	195	-102.731	115.221	87.679	1	183.5	N
ATOM	11029	CA	GLN	R	195	-102.785	115.207	86.205	1	177.87	C
ATOM	11030	CB	GLN	R	195	-101.393	115.381	85.577	1	175.92	C
ATOM	11031	CG	GLN	R	195	-101.094	116.788	85.074	1	180.69	C
ATOM	11032	CD	GLN	R	195	-99.604	117.072	84.936	1	179.93	C
ATOM	11033	OE1	GLN	R	195	-98.788	116.156	84.824	1	182.22	O
ATOM	11034	NE2	GLN	R	195	-99.242	118.35	84.965	1	175.89	N
ATOM	11035	C	GLN	R	195	-103.408	113.892	85.732	1	180.07	C
ATOM	11036	O	GLN	R	195	-103.372	112.887	86.447	1	181.8	O
ATOM	11037	N	THR	R	196	-103.97	113.909	84.524	1	186.09	N
ATOM	11038	CA	THR	R	196	-104.638	112.732	83.947	1	193.7	C
ATOM	11039	CB	THR	R	196	-105.69	113.137	82.886	1	196.39	C
ATOM	11040	OG1	THR	R	196	-106.42	114.285	83.337	1	204.94	O
ATOM	11041	CG2	THR	R	196	-106.671	111.995	82.618	1	187.54	C

ATOM	11042	C	THR	R	196	-103.615	111.783	83.309	1	192.01	C
ATOM	11043	O	THR	R	196	-102.609	112.233	82.748	1	187.43	O
ATOM	11044	N	TYR	R	197	-103.883	110.477	83.408	1	186.62	N
ATOM	11045	CA	TYR	R	197	-103.022	109.423	82.842	1	177.58	C
ATOM	11046	CB	TYR	R	197	-101.978	108.971	83.872	1	180.69	C
ATOM	11047	CG	TYR	R	197	-100.892	109.995	84.124	1	187.98	C
ATOM	11048	CD1	TYR	R	197	-99.788	110.095	83.276	1	193.93	C
ATOM	11049	CE1	TYR	R	197	-98.794	111.041	83.498	1	196.6	C
ATOM	11050	CZ	TYR	R	197	-98.896	111.907	84.579	1	197.82	C
ATOM	11051	OH	TYR	R	197	-97.913	112.846	84.807	1	201.53	O
ATOM	11052	CE2	TYR	R	197	-99.986	111.828	85.431	1	199.76	C
ATOM	11053	CD2	TYR	R	197	-100.975	110.879	85.2	1	195.22	C
ATOM	11054	C	TYR	R	197	-103.87	108.232	82.371	1	165.23	C
ATOM	11055	O	TYR	R	197	-104.21	107.347	83.157	1	150.73	O
ATOM	11056	N	ILE	R	198	-104.178	108.215	81.077	1	169.49	N
ATOM	11057	CA	ILE	R	198	-105.201	107.329	80.508	1	180.27	C
ATOM	11058	CB	ILE	R	198	-106.631	107.964	80.63	1	179.84	C
ATOM	11059	CG1	ILE	R	198	-107.708	107.119	79.925	1	178.86	C
ATOM	11060	CD1	ILE	R	198	-109.103	107.712	79.981	1	175.19	C
ATOM	11061	CG2	ILE	R	198	-106.667	109.399	80.113	1	183.73	C
ATOM	11062	C	ILE	R	198	-104.829	106.96	79.057	1	182.97	C
ATOM	11063	O	ILE	R	198	-105.008	107.766	78.133	1	176.71	O
ATOM	11064	N	CYS	R	199	-104.294	105.747	78.873	1	177.32	N
ATOM	11065	CA	CYS	R	199	-103.932	105.255	77.539	1	176.18	C
ATOM	11066	CB	CYS	R	199	-102.884	104.131	77.607	1	189.4	C
ATOM	11067	SG	CYS	R	199	-103.442	102.49	78.128	1	203.29	S
ATOM	11068	C	CYS	R	199	-105.185	104.809	76.788	1	164.6	C
ATOM	11069	O	CYS	R	199	-106.058	104.144	77.362	1	143.46	O
ATOM	11070	N	ASN	R	200	-105.25	105.179	75.507	1	162.97	N
ATOM	11071	CA	ASN	R	200	-106.455	105.05	74.686	1	168.42	C
ATOM	11072	CB	ASN	R	200	-106.931	106.445	74.257	1	166.26	C
ATOM	11073	CG	ASN	R	200	-106.897	107.451	75.394	1	174.95	C
ATOM	11074	OD1	ASN	R	200	-106.09	108.379	75.394	1	173.03	O
ATOM	11075	ND2	ASN	R	200	-107.764	107.261	76.376	1	185.17	N
ATOM	11076	C	ASN	R	200	-106.214	104.156	73.465	1	177.44	C
ATOM	11077	O	ASN	R	200	-105.927	104.65	72.372	1	184.77	O
ATOM	11078	N	VAL	R	201	-106.335	102.839	73.665	1	189.65	N
ATOM	11079	CA	VAL	R	201	-106.06	101.838	72.608	1	195.17	C
ATOM	11080	CB	VAL	R	201	-105.707	100.43	73.176	1	197.19	C
ATOM	11081	CG1	VAL	R	201	-104.574	100.512	74.193	1	197.07	C
ATOM	11082	CG2	VAL	R	201	-106.928	99.733	73.778	1	198.37	C
ATOM	11083	C	VAL	R	201	-107.221	101.683	71.625	1	193.8	C
ATOM	11084	O	VAL	R	201	-108.372	101.967	71.966	1	196.1	O
ATOM	11085	N	ASN	R	202	-106.907	101.217	70.414	1	189.17	N

ATOM	11086	CA	ASN	R	202	-107.922	100.938	69.395	1	184.52	C
ATOM	11087	CB	ASN	R	202	-108.326	102.226	68.656	1	185.57	C
ATOM	11088	CG	ASN	R	202	-109.832	102.332	68.44	1	182.76	C
ATOM	11089	OD1	ASN	R	202	-110.483	101.366	68.043	1	174.32	O
ATOM	11090	ND2	ASN	R	202	-110.392	103.51	68.701	1	181.63	N
ATOM	11091	C	ASN	R	202	-107.465	99.854	68.406	1	176.13	C
ATOM	11092	O	ASN	R	202	-106.421	99.993	67.757	1	160.69	O
ATOM	11093	N	HIS	R	203	-108.267	98.79	68.305	1	174.8	N
ATOM	11094	CA	HIS	R	203	-107.945	97.587	67.528	1	166.81	C
ATOM	11095	CB	HIS	R	203	-107.795	96.393	68.491	1	160.58	C
ATOM	11096	CG	HIS	R	203	-107.166	95.179	67.878	1	153.32	C
ATOM	11097	ND1	HIS	R	203	-107.565	93.899	68.193	1	147.08	N
ATOM	11098	CE1	HIS	R	203	-106.84	93.031	67.511	1	147.84	C
ATOM	11099	NE2	HIS	R	203	-105.981	93.703	66.767	1	154.53	N
ATOM	11100	CD2	HIS	R	203	-106.162	95.049	66.981	1	154.31	C
ATOM	11101	C	HIS	R	203	-109.036	97.327	66.476	1	160.75	C
ATOM	11102	O	HIS	R	203	-109.938	96.519	66.689	1	149.91	O
ATOM	11103	N	LYS	R	204	-108.927	98.023	65.341	1	152.44	N
ATOM	11104	CA	LYS	R	204	-109.885	97.934	64.207	1	148.99	C
ATOM	11105	CB	LYS	R	204	-109.234	98.316	62.854	1	148.14	C
ATOM	11106	CG	LYS	R	204	-108.49	99.65	62.776	1	150.44	C
ATOM	11107	CD	LYS	R	204	-107.078	99.476	62.212	1	158.29	C
ATOM	11108	CE	LYS	R	204	-106.145	98.705	63.152	1	161.66	C
ATOM	11109	NZ	LYS	R	204	-105.343	97.66	62.458	1	160.34	N
ATOM	11110	C	LYS	R	204	-110.56	96.564	64.032	1	150.03	C
ATOM	11111	O	LYS	R	204	-111.786	96.473	64.156	1	128.39	O
ATOM	11112	N	PRO	R	205	-109.76	95.494	63.777	1	157.13	N
ATOM	11113	CA	PRO	R	205	-110.353	94.247	63.279	1	154.74	C
ATOM	11114	CB	PRO	R	205	-109.135	93.384	62.896	1	157.45	C
ATOM	11115	CG	PRO	R	205	-107.918	94.1	63.379	1	155.32	C
ATOM	11116	CD	PRO	R	205	-108.345	95.301	64.158	1	154.56	C
ATOM	11117	C	PRO	R	205	-111.238	93.539	64.302	1	150.27	C
ATOM	11118	O	PRO	R	205	-112.413	93.297	64.022	1	154.36	O
ATOM	11119	N	SER	R	206	-110.679	93.22	65.47	1	147.42	N
ATOM	11120	CA	SER	R	206	-111.475	92.712	66.599	1	140.9	C
ATOM	11121	CB	SER	R	206	-110.582	92.178	67.725	1	136.63	C
ATOM	11122	OG	SER	R	206	-109.998	93.237	68.456	1	128.15	O
ATOM	11123	C	SER	R	206	-112.388	93.804	67.15	1	134.16	C
ATOM	11124	O	SER	R	206	-113.385	93.5	67.805	1	123.5	O
ATOM	11125	N	ASN	R	207	-112.013	95.065	66.909	1	133.33	N
ATOM	11126	CA	ASN	R	207	-112.862	96.227	67.16	1	136.27	C
ATOM	11127	CB	ASN	R	207	-114.198	96.093	66.405	1	133.48	C
ATOM	11128	CG	ASN	R	207	-114.646	97.389	65.772	1	127.81	C
ATOM	11129	OD1	ASN	R	207	-113.854	98.1	65.149	1	113.39	O

ATOM	11130	ND2	ASN	R	207	-115.93	97.689	65.902	1	132.63	N
ATOM	11131	C	ASN	R	207	-113.049	96.444	68.666	1	144.28	C
ATOM	11132	O	ASN	R	207	-114.082	96.079	69.244	1	152.27	O
ATOM	11133	N	THR	R	208	-112.018	97.023	69.288	1	139.37	N
ATOM	11134	CA	THR	R	208	-111.982	97.243	70.735	1	138.1	C
ATOM	11135	CB	THR	R	208	-111.126	96.166	71.448	1	143.61	C
ATOM	11136	OG1	THR	R	208	-111.058	94.978	70.649	1	159.06	O
ATOM	11137	CG2	THR	R	208	-111.702	95.831	72.829	1	143.91	C
ATOM	11138	C	THR	R	208	-111.382	98.613	71.071	1	142.83	C
ATOM	11139	O	THR	R	208	-110.293	98.945	70.596	1	132.06	O
ATOM	11140	N	LYS	R	209	-112.105	99.398	71.874	1	151.34	N
ATOM	11141	CA	LYS	R	209	-111.53	100.537	72.595	1	160.17	C
ATOM	11142	CB	LYS	R	209	-112.101	101.873	72.091	1	166.05	C
ATOM	11143	CG	LYS	R	209	-111.493	103.101	72.771	1	170.61	C
ATOM	11144	CD	LYS	R	209	-111.58	104.386	71.947	1	169.63	C
ATOM	11145	CE	LYS	R	209	-112.911	105.112	72.113	1	174.1	C
ATOM	11146	NZ	LYS	R	209	-114.08	104.371	71.561	1	178.31	N
ATOM	11147	C	LYS	R	209	-111.79	100.34	74.1	1	167.33	C
ATOM	11148	O	LYS	R	209	-112.907	100.002	74.51	1	159.63	O
ATOM	11149	N	VAL	R	210	-110.737	100.517	74.902	1	176.39	N
ATOM	11150	CA	VAL	R	210	-110.809	100.445	76.371	1	182.86	C
ATOM	11151	CB	VAL	R	210	-110.421	99.036	76.928	1	182.03	C
ATOM	11152	CG1	VAL	R	210	-109.076	98.54	76.393	1	176.34	C
ATOM	11153	CG2	VAL	R	210	-110.449	99.012	78.457	1	179.92	C
ATOM	11154	C	VAL	R	210	-109.946	101.575	76.943	1	184.89	C
ATOM	11155	O	VAL	R	210	-108.785	101.38	77.316	1	185.14	O
ATOM	11156	N	ASP	R	211	-110.529	102.771	76.983	1	183.57	N
ATOM	11157	CA	ASP	R	211	-109.81	103.971	77.416	1	183.95	C
ATOM	11158	CB	ASP	R	211	-110.587	105.245	77.028	1	175.89	C
ATOM	11159	CG	ASP	R	211	-110.793	105.39	75.503	1	161.38	C
ATOM	11160	OD1	ASP	R	211	-109.954	104.913	74.704	1	134.81	O
ATOM	11161	OD2	ASP	R	211	-111.807	105.999	75.106	1	154.53	O
ATOM	11162	C	ASP	R	211	-109.563	103.869	78.931	1	182.98	C
ATOM	11163	O	ASP	R	211	-110.363	104.347	79.742	1	193.91	O
ATOM	11164	N	LYS	R	212	-108.443	103.231	79.283	1	171.62	N
ATOM	11165	CA	LYS	R	212	-108.17	102.746	80.644	1	169.72	C
ATOM	11166	CB	LYS	R	212	-107.554	101.347	80.556	1	167.03	C
ATOM	11167	CG	LYS	R	212	-107.207	100.674	81.883	1	166.82	C
ATOM	11168	CD	LYS	R	212	-108.417	100.041	82.551	1	163.32	C
ATOM	11169	CE	LYS	R	212	-108.013	99.259	83.792	1	159.08	C
ATOM	11170	NZ	LYS	R	212	-109.059	98.278	84.191	1	158.42	N
ATOM	11171	C	LYS	R	212	-107.222	103.674	81.41	1	173.37	C
ATOM	11172	O	LYS	R	212	-106.198	104.091	80.868	1	188.18	O
ATOM	11173	N	LYS	R	213	-107.554	103.951	82.676	1	166.75	N

ATOM	11174	CA	LYS	R	213	-106.746	104.827	83.549	1	164.86	C
ATOM	11175	CB	LYS	R	213	-107.595	105.374	84.71	1	169.41	C
ATOM	11176	CG	LYS	R	213	-108.633	106.417	84.304	1	167.63	C
ATOM	11177	CD	LYS	R	213	-108.79	107.508	85.363	1	160.64	C
ATOM	11178	CE	LYS	R	213	-109.575	108.71	84.847	1	157.14	C
ATOM	11179	NZ	LYS	R	213	-108.912	110.001	85.191	1	153.57	N
ATOM	11180	C	LYS	R	213	-105.503	104.138	84.126	1	152.77	C
ATOM	11181	O	LYS	R	213	-105.423	102.909	84.148	1	142.68	O
ATOM	11182	N	VAL	R	214	-104.547	104.949	84.589	1	148.96	N
ATOM	11183	CA	VAL	R	214	-103.307	104.464	85.222	1	164.36	C
ATOM	11184	CB	VAL	R	214	-102.139	104.345	84.207	1	180.8	C
ATOM	11185	CG1	VAL	R	214	-100.912	103.718	84.877	1	182.62	C
ATOM	11186	CG2	VAL	R	214	-102.552	103.562	82.959	1	181.12	C
ATOM	11187	C	VAL	R	214	-102.841	105.397	86.351	1	163.04	C
ATOM	11188	O	VAL	R	214	-102.398	106.519	86.096	1	169.61	O
ATOM	11189	N	GLU	R	215	-102.914	104.923	87.59	1	156.7	N
ATOM	11190	CA	GLU	R	215	-102.478	105.71	88.747	1	149.51	C
ATOM	11191	CB	GLU	R	215	-103.514	106.791	89.092	1	150.62	C
ATOM	11192	CG	GLU	R	215	-104.944	106.29	89.285	1	148.85	C
ATOM	11193	CD	GLU	R	215	-105.962	107.417	89.419	1	151.99	C
ATOM	11194	OE1	GLU	R	215	-105.6	108.532	89.863	1	139.53	O
ATOM	11195	OE2	GLU	R	215	-107.141	107.185	89.077	1	164.34	O
ATOM	11196	C	GLU	R	215	-102.228	104.79	89.942	1	143.55	C
ATOM	11197	O	GLU	R	215	-102.997	103.859	90.166	1	155.63	O
ATOM	11198	N	PRO	R	216	-101.175	105.063	90.731	1	133.17	N
ATOM	11199	CA	PRO	R	216	-100.646	104.032	91.638	1	136.71	C
ATOM	11200	CB	PRO	R	216	-99.287	104.6	92.074	1	135.65	C
ATOM	11201	CG	PRO	R	216	-99.26	106.031	91.639	1	138.71	C
ATOM	11202	CD	PRO	R	216	-100.558	106.376	90.977	1	133.94	C
ATOM	11203	C	PRO	R	216	-101.473	103.67	92.884	1	142.14	C
ATOM	11204	O	PRO	R	216	-102.277	104.471	93.363	1	151.43	O
ATOM	11205	N	LYS	R	217	-101.257	102.448	93.371	1	140.04	N
ATOM	11206	CA	LYS	R	217	-101.695	102.014	94.699	1	137.59	C
ATOM	11207	CB	LYS	R	217	-103.216	101.775	94.743	1	136.16	C
ATOM	11208	CG	LYS	R	217	-103.773	101.094	96.002	1	137.75	C
ATOM	11209	CD	LYS	R	217	-103.175	101.555	97.339	1	137.95	C
ATOM	11210	CE	LYS	R	217	-103.23	103.061	97.56	1	140.42	C
ATOM	11211	NZ	LYS	R	217	-104.555	103.669	97.242	1	141.77	N
ATOM	11212	C	LYS	R	217	-100.918	100.753	95.07	1	138.35	C
ATOM	11213	O	LYS	R	217	-99.688	100.765	95.112	1	134.16	O
TER	11214		LYS	R	217						
ATOM	11215	N	ASP	S	1	-77.538	77.999	46.719	1	115.64	N
ATOM	11216	CA	ASP	S	1	-76.355	78.613	47.429	1	123.72	C
ATOM	11217	CB	ASP	S	1	-75.312	77.536	47.796	1	135.39	C

ATOM	11218	CG	ASP	S	1	-74.283	77.284	46.691	1	141.79	C
ATOM	11219	OD1	ASP	S	1	-74.668	77.115	45.512	1	144.05	O
ATOM	11220	OD2	ASP	S	1	-73.075	77.272	47.016	1	155.83	O
ATOM	11221	C	ASP	S	1	-75.743	79.778	46.627	1	118.38	C
ATOM	11222	O	ASP	S	1	-76.368	80.242	45.669	1	123.4	O
ATOM	11223	N	ILE	S	2	-74.532	80.211	47.012	1	111.97	N
ATOM	11224	CA	ILE	S	2	-73.902	81.501	46.638	1	110.64	C
ATOM	11225	CB	ILE	S	2	-74.278	82.111	45.241	1	109.36	C
ATOM	11226	CG1	ILE	S	2	-73.858	81.193	44.077	1	108.72	C
ATOM	11227	CD1	ILE	S	2	-72.433	81.333	43.563	1	102.06	C
ATOM	11228	CG2	ILE	S	2	-73.642	83.482	45.063	1	107.03	C
ATOM	11229	C	ILE	S	2	-74.298	82.402	47.805	1	101.65	C
ATOM	11230	O	ILE	S	2	-75.31	83.101	47.763	1	85.79	O
ATOM	11231	N	VAL	S	3	-73.499	82.337	48.864	1	104.97	N
ATOM	11232	CA	VAL	S	3	-73.884	82.879	50.165	1	111.99	C
ATOM	11233	CB	VAL	S	3	-73.578	81.87	51.305	1	110.66	C
ATOM	11234	CG1	VAL	S	3	-74.274	82.29	52.593	1	105.65	C
ATOM	11235	CG2	VAL	S	3	-74.004	80.456	50.903	1	113.99	C
ATOM	11236	C	VAL	S	3	-73.2	84.229	50.427	1	113.32	C
ATOM	11237	O	VAL	S	3	-71.988	84.297	50.679	1	112.66	O
ATOM	11238	N	MET	S	4	-73.995	85.297	50.355	1	106.81	N
ATOM	11239	CA	MET	S	4	-73.572	86.632	50.783	1	109.93	C
ATOM	11240	CB	MET	S	4	-74.643	87.663	50.396	1	115.15	C
ATOM	11241	CG	MET	S	4	-74.561	88.291	48.99	1	127.79	C
ATOM	11242	SD	MET	S	4	-73.266	87.866	47.783	1	128.14	S
ATOM	11243	CE	MET	S	4	-73.792	86.249	47.254	1	137.39	C
ATOM	11244	C	MET	S	4	-73.334	86.656	52.305	1	112.25	C
ATOM	11245	O	MET	S	4	-73.793	85.765	53.014	1	129.68	O
ATOM	11246	N	THR	S	5	-72.616	87.66	52.807	1	109.75	N
ATOM	11247	CA	THR	S	5	-72.381	87.795	54.26	1	113.64	C
ATOM	11248	CB	THR	S	5	-71.306	86.785	54.754	1	107.21	C
ATOM	11249	OG1	THR	S	5	-71.9	85.485	54.843	1	104.29	O
ATOM	11250	CG2	THR	S	5	-70.728	87.137	56.151	1	103.47	C
ATOM	11251	C	THR	S	5	-72.047	89.233	54.674	1	121.39	C
ATOM	11252	O	THR	S	5	-70.886	89.654	54.629	1	127.89	O
ATOM	11253	N	GLN	S	6	-73.08	89.975	55.074	1	122.55	N
ATOM	11254	CA	GLN	S	6	-72.9	91.296	55.668	1	126.38	C
ATOM	11255	CB	GLN	S	6	-74.092	92.192	55.376	1	119.93	C
ATOM	11256	CG	GLN	S	6	-74.29	92.486	53.908	1	117.64	C
ATOM	11257	CD	GLN	S	6	-75.476	93.392	53.666	1	118.4	C
ATOM	11258	OE1	GLN	S	6	-76.38	93.052	52.904	1	116.95	O
ATOM	11259	NE2	GLN	S	6	-75.487	94.549	54.315	1	115.12	N
ATOM	11260	C	GLN	S	6	-72.71	91.173	57.177	1	140.15	C
ATOM	11261	O	GLN	S	6	-73.683	91.035	57.93	1	147.54	O

ATOM	11262	N	SER	S	7	-71.447	91.202	57.596	1	143.24	N
ATOM	11263	CA	SER	S	7	-71.064	91.254	59.005	1	136.07	C
ATOM	11264	CB	SER	S	7	-69.851	90.357	59.257	1	134.75	C
ATOM	11265	OG	SER	S	7	-69.072	90.214	58.077	1	133.49	O
ATOM	11266	C	SER	S	7	-70.75	92.726	59.332	1	132.3	C
ATOM	11267	O	SER	S	7	-69.737	93.241	58.873	1	150.06	O
ATOM	11268	N	GLN	S	8	-71.582	93.423	60.1	1	121.63	N
ATOM	11269	CA	GLN	S	8	-72.763	92.888	60.772	1	126	C
ATOM	11270	CB	GLN	S	8	-72.42	92.502	62.232	1	139.48	C
ATOM	11271	CG	GLN	S	8	-72.215	90.999	62.488	1	138.12	C
ATOM	11272	CD	GLN	S	8	-72.365	90.609	63.965	1	142.19	C
ATOM	11273	OE1	GLN	S	8	-73.023	89.62	64.295	1	143.89	O
ATOM	11274	NE2	GLN	S	8	-71.765	91.394	64.856	1	145.61	N
ATOM	11275	C	GLN	S	8	-73.892	93.912	60.679	1	117.79	C
ATOM	11276	O	GLN	S	8	-73.725	94.958	60.059	1	101.36	O
ATOM	11277	N	LYS	S	9	-75.038	93.595	61.28	1	119.51	N
ATOM	11278	CA	LYS	S	9	-76.273	94.307	60.989	1	127.3	C
ATOM	11279	CB	LYS	S	9	-77.499	93.506	61.439	1	136.05	C
ATOM	11280	CG	LYS	S	9	-77.6	92.118	60.822	1	149.53	C
ATOM	11281	CD	LYS	S	9	-79.002	91.538	60.956	1	160.51	C
ATOM	11282	CE	LYS	S	9	-79.038	90.05	60.627	1	163.54	C
ATOM	11283	NZ	LYS	S	9	-78.146	89.225	61.497	1	164.91	N
ATOM	11284	C	LYS	S	9	-76.337	95.711	61.559	1	132.69	C
ATOM	11285	O	LYS	S	9	-77.111	96.524	61.062	1	128.73	O
ATOM	11286	N	PHE	S	10	-75.532	96.01	62.579	1	142.92	N
ATOM	11287	CA	PHE	S	10	-75.585	97.324	63.236	1	149.28	C
ATOM	11288	CB	PHE	S	10	-75.839	97.16	64.741	1	145.8	C
ATOM	11289	CG	PHE	S	10	-77.143	96.473	65.063	1	135.99	C
ATOM	11290	CD1	PHE	S	10	-78.363	97.079	64.739	1	125.15	C
ATOM	11291	CE1	PHE	S	10	-79.563	96.448	65.025	1	126.99	C
ATOM	11292	CZ	PHE	S	10	-79.561	95.197	65.641	1	134.24	C
ATOM	11293	CE2	PHE	S	10	-78.357	94.582	65.97	1	130.68	C
ATOM	11294	CD2	PHE	S	10	-77.157	95.218	65.682	1	129.51	C
ATOM	11295	C	PHE	S	10	-74.32	98.148	62.981	1	149.47	C
ATOM	11296	O	PHE	S	10	-73.199	97.665	63.182	1	136.35	O
ATOM	11297	N	MET	S	11	-74.519	99.389	62.529	1	151.46	N
ATOM	11298	CA	MET	S	11	-73.425	100.329	62.275	1	145.12	C
ATOM	11299	CB	MET	S	11	-72.807	100.038	60.91	1	135.67	C
ATOM	11300	CG	MET	S	11	-71.385	100.529	60.746	1	134.23	C
ATOM	11301	SD	MET	S	11	-70.55	99.747	59.35	1	139.17	S
ATOM	11302	CE	MET	S	11	-71.633	100.144	57.974	1	133.29	C
ATOM	11303	C	MET	S	11	-73.948	101.768	62.341	1	149.66	C
ATOM	11304	O	MET	S	11	-75.088	102.034	61.962	1	147.03	O
ATOM	11305	N	SER	S	12	-73.12	102.685	62.839	1	149.5	N

ATOM	11306	CA	SER	S	12	-73.52	104.085	63.012	1	151.91	C
ATOM	11307	CB	SER	S	12	-73.971	104.315	64.457	1	152.26	C
ATOM	11308	OG	SER	S	12	-74.7	105.525	64.584	1	155.3	O
ATOM	11309	C	SER	S	12	-72.376	105.042	62.65	1	152.29	C
ATOM	11310	O	SER	S	12	-71.221	104.782	62.991	1	160.82	O
ATOM	11311	N	THR	S	13	-72.704	106.128	61.945	1	145.63	N
ATOM	11312	CA	THR	S	13	-71.747	107.195	61.613	1	145.97	C
ATOM	11313	CB	THR	S	13	-71.183	107.035	60.182	1	146.49	C
ATOM	11314	OG1	THR	S	13	-72.217	107.274	59.214	1	155.2	O
ATOM	11315	CG2	THR	S	13	-70.592	105.642	59.966	1	135.14	C
ATOM	11316	C	THR	S	13	-72.434	108.563	61.712	1	151.24	C
ATOM	11317	O	THR	S	13	-73.622	108.681	61.39	1	151.11	O
ATOM	11318	N	SER	S	14	-71.692	109.593	62.136	1	151.96	N
ATOM	11319	CA	SER	S	14	-72.248	110.964	62.241	1	151.85	C
ATOM	11320	CB	SER	S	14	-71.244	111.943	62.892	1	152.01	C
ATOM	11321	OG	SER	S	14	-71.381	111.981	64.306	1	146.7	O
ATOM	11322	C	SER	S	14	-72.719	111.49	60.872	1	147.62	C
ATOM	11323	O	SER	S	14	-72.364	110.925	59.829	1	144.55	O
ATOM	11324	N	ILE	S	15	-73.507	112.569	60.882	1	139.56	N
ATOM	11325	CA	ILE	S	15	-74.111	113.095	59.636	1	132.29	C
ATOM	11326	CB	ILE	S	15	-75.274	114.109	59.866	1	126.6	C
ATOM	11327	CG1	ILE	S	15	-76.21	113.631	61.001	1	125.78	C
ATOM	11328	CD1	ILE	S	15	-77.519	114.381	61.154	1	123.08	C
ATOM	11329	CG2	ILE	S	15	-76.041	114.34	58.555	1	118.27	C
ATOM	11330	C	ILE	S	15	-73.001	113.72	58.781	1	130.51	C
ATOM	11331	O	ILE	S	15	-72.025	114.247	59.31	1	126.93	O
ATOM	11332	N	GLY	S	16	-73.122	113.596	57.463	1	133.73	N
ATOM	11333	CA	GLY	S	16	-72.133	114.134	56.538	1	139	C
ATOM	11334	C	GLY	S	16	-70.883	113.295	56.307	1	150.33	C
ATOM	11335	O	GLY	S	16	-70.248	113.443	55.265	1	167.46	O
ATOM	11336	N	ASP	S	17	-70.502	112.444	57.269	1	148.66	N
ATOM	11337	CA	ASP	S	17	-69.421	111.456	57.081	1	154.35	C
ATOM	11338	CB	ASP	S	17	-69.376	110.469	58.266	1	161.11	C
ATOM	11339	CG	ASP	S	17	-68.516	110.949	59.42	1	161.79	C
ATOM	11340	OD1	ASP	S	17	-67.305	111.185	59.209	1	162.59	O
ATOM	11341	OD2	ASP	S	17	-69.044	111.033	60.55	1	152.16	O
ATOM	11342	C	ASP	S	17	-69.558	110.606	55.812	1	156.92	C
ATOM	11343	O	ASP	S	17	-70.648	110.467	55.25	1	157.94	O
ATOM	11344	N	ARG	S	18	-68.424	110.072	55.359	1	161.7	N
ATOM	11345	CA	ARG	S	18	-68.389	108.863	54.512	1	170.1	C
ATOM	11346	CB	ARG	S	18	-67.087	108.768	53.67	1	167.83	C
ATOM	11347	CG	ARG	S	18	-65.788	108.406	54.405	1	170.36	C
ATOM	11348	CD	ARG	S	18	-65.022	109.626	54.915	1	174.5	C
ATOM	11349	NE	ARG	S	18	-64.294	109.388	56.169	1	182.46	N

ATOM	11350	CZ	ARG	S	18	-64.838	109.177	57.378	1	181.64	C
ATOM	11351	NH1	ARG	S	18	-66.157	109.136	57.562	1	171.79	N
ATOM	11352	NH2	ARG	S	18	-64.044	108.981	58.431	1	183.11	N
ATOM	11353	C	ARG	S	18	-68.617	107.581	55.347	1	170.15	C
ATOM	11354	O	ARG	S	18	-68.215	107.52	56.515	1	166.62	O
ATOM	11355	N	VAL	S	19	-69.257	106.575	54.734	1	161.79	N
ATOM	11356	CA	VAL	S	19	-69.604	105.291	55.393	1	145.95	C
ATOM	11357	CB	VAL	S	19	-71.053	105.309	55.944	1	146.9	C
ATOM	11358	CG1	VAL	S	19	-72.073	105.629	54.848	1	149.65	C
ATOM	11359	CG2	VAL	S	19	-71.396	103.996	56.64	1	144.06	C
ATOM	11360	C	VAL	S	19	-69.433	104.127	54.413	1	133.31	C
ATOM	11361	O	VAL	S	19	-69.731	104.29	53.242	1	125.48	O
ATOM	11362	N	SER	S	20	-68.98	102.966	54.899	1	134.59	N
ATOM	11363	CA	SER	S	20	-68.566	101.836	54.036	1	145.32	C
ATOM	11364	CB	SER	S	20	-67.036	101.791	53.979	1	145.33	C
ATOM	11365	OG	SER	S	20	-66.492	103.083	53.78	1	147.84	O
ATOM	11366	C	SER	S	20	-69.092	100.457	54.499	1	148.07	C
ATOM	11367	O	SER	S	20	-68.824	100.05	55.632	1	170.01	O
ATOM	11368	N	VAL	S	21	-69.788	99.727	53.614	1	132.38	N
ATOM	11369	CA	VAL	S	21	-70.485	98.471	53.978	1	121.28	C
ATOM	11370	CB	VAL	S	21	-71.981	98.535	53.591	1	118.64	C
ATOM	11371	CG1	VAL	S	21	-72.709	97.289	54.069	1	118.55	C
ATOM	11372	CG2	VAL	S	21	-72.64	99.771	54.185	1	118.22	C
ATOM	11373	C	VAL	S	21	-69.875	97.213	53.336	1	112.01	C
ATOM	11374	O	VAL	S	21	-69.951	97.04	52.132	1	107.28	O
ATOM	11375	N	THR	S	22	-69.347	96.307	54.157	1	112.31	N
ATOM	11376	CA	THR	S	22	-68.686	95.085	53.665	1	119.21	C
ATOM	11377	CB	THR	S	22	-67.741	94.414	54.722	1	125.42	C
ATOM	11378	OG1	THR	S	22	-68.448	93.413	55.472	1	123.81	O
ATOM	11379	CG2	THR	S	22	-67.093	95.431	55.706	1	126	C
ATOM	11380	C	THR	S	22	-69.742	94.059	53.227	1	128.49	C
ATOM	11381	O	THR	S	22	-70.899	94.146	53.644	1	137.85	O
ATOM	11382	N	CYS	S	23	-69.327	93.094	52.4	1	132.13	N
ATOM	11383	CA	CYS	S	23	-70.186	91.974	51.956	1	125.39	C
ATOM	11384	CB	CYS	S	23	-71.324	92.467	51.039	1	125.68	C
ATOM	11385	SG	CYS	S	23	-72.232	91.137	50.199	1	131.63	S
ATOM	11386	C	CYS	S	23	-69.385	90.876	51.232	1	124.82	C
ATOM	11387	O	CYS	S	23	-69.019	91.04	50.064	1	119.73	O
ATOM	11388	N	LYS	S	24	-69.141	89.758	51.919	1	131.39	N
ATOM	11389	CA	LYS	S	24	-68.452	88.594	51.323	1	137.29	C
ATOM	11390	CB	LYS	S	24	-67.928	87.658	52.423	1	143.39	C
ATOM	11391	CG	LYS	S	24	-66.965	88.315	53.409	1	149.87	C
ATOM	11392	CD	LYS	S	24	-66.17	87.29	54.223	1	154.54	C
ATOM	11393	CE	LYS	S	24	-66.974	86.652	55.35	1	148.53	C

ATOM	11394	NZ	LYS	S	24	-67.143	87.567	56.514	1	145.64	N
ATOM	11395	C	LYS	S	24	-69.358	87.808	50.35	1	129.76	C
ATOM	11396	O	LYS	S	24	-70.558	88.054	50.289	1	139.96	O
ATOM	11397	N	ALA	S	25	-68.773	86.881	49.586	1	117.83	N
ATOM	11398	CA	ALA	S	25	-69.53	85.992	48.679	1	112.16	C
ATOM	11399	CB	ALA	S	25	-69.741	86.655	47.33	1	108.19	C
ATOM	11400	C	ALA	S	25	-68.806	84.659	48.5	1	113.41	C
ATOM	11401	O	ALA	S	25	-67.684	84.63	48.006	1	114.25	O
ATOM	11402	N	SER	S	26	-69.468	83.565	48.881	1	122.54	N
ATOM	11403	CA	SER	S	26	-68.836	82.234	49.048	1	133.14	C
ATOM	11404	CB	SER	S	26	-69.915	81.175	49.321	1	140.5	C
ATOM	11405	OG	SER	S	26	-70.999	81.287	48.407	1	136.07	O
ATOM	11406	C	SER	S	26	-67.971	81.768	47.877	1	131.77	C
ATOM	11407	O	SER	S	26	-66.806	81.395	48.058	1	118.46	O
ATOM	11408	N	GLN	S	27	-68.58	81.768	46.693	1	138.55	N
ATOM	11409	CA	GLN	S	27	-67.887	81.54	45.43	1	137.76	C
ATOM	11410	CB	GLN	S	27	-68.776	80.769	44.454	1	134.69	C
ATOM	11411	CG	GLN	S	27	-69.312	79.456	44.987	1	133.23	C
ATOM	11412	CD	GLN	S	27	-69.881	78.586	43.89	1	137.75	C
ATOM	11413	OE1	GLN	S	27	-70.362	79.086	42.874	1	143.98	O
ATOM	11414	NE2	GLN	S	27	-69.817	77.274	44.08	1	143.48	N
ATOM	11415	C	GLN	S	27	-67.558	82.879	44.799	1	137.2	C
ATOM	11416	O	GLN	S	27	-68.172	83.902	45.129	1	142.58	O
ATOM	11417	N	ASN	S	28	-66.598	82.864	43.88	1	126.77	N
ATOM	11418	CA	ASN	S	28	-66.363	84.001	43.006	1	125.22	C
ATOM	11419	CB	ASN	S	28	-65.24	83.686	42.017	1	121.59	C
ATOM	11420	CG	ASN	S	28	-65.128	84.722	40.923	1	127.17	C
ATOM	11421	OD1	ASN	S	28	-65.002	85.915	41.2	1	130.13	O
ATOM	11422	ND2	ASN	S	28	-65.209	84.277	39.671	1	126.71	N
ATOM	11423	C	ASN	S	28	-67.657	84.399	42.266	1	128.26	C
ATOM	11424	O	ASN	S	28	-68.367	83.546	41.727	1	130.56	O
ATOM	11425	N	VAL	S	29	-67.973	85.692	42.305	1	128.6	N
ATOM	11426	CA	VAL	S	29	-69.091	86.281	41.551	1	126.75	C
ATOM	11427	CB	VAL	S	29	-70.337	86.465	42.451	1	128.49	C
ATOM	11428	CG1	VAL	S	29	-70.792	85.126	43.012	1	132.28	C
ATOM	11429	CG2	VAL	S	29	-70.084	87.466	43.58	1	125.14	C
ATOM	11430	C	VAL	S	29	-68.665	87.63	40.951	1	131.63	C
ATOM	11431	O	VAL	S	29	-69.493	88.525	40.717	1	114.4	O
ATOM	11432	N	GLY	S	30	-67.362	87.747	40.687	1	135.87	N
ATOM	11433	CA	GLY	S	30	-66.731	89.004	40.336	1	135.94	C
ATOM	11434	C	GLY	S	30	-67.127	89.423	38.937	1	140.69	C
ATOM	11435	O	GLY	S	30	-67.009	88.611	38.022	1	157.58	O
ATOM	11436	N	THR	S	31	-67.607	90.649	38.721	1	129.38	N
ATOM	11437	CA	THR	S	31	-67.951	91.629	39.745	1	110.68	C

ATOM	11438	CB	THR	S	31	-66.862	92.707	39.918	1	98.68	C
ATOM	11439	C	THR	S	31	-69.257	92.233	39.264	1	107.91	C
ATOM	11440	O	THR	S	31	-69.266	93.225	38.522	1	90.08	O
ATOM	11441	N	ASN	S	32	-70.345	91.566	39.656	1	115.24	N
ATOM	11442	CA	ASN	S	32	-71.721	91.905	39.254	1	118.29	C
ATOM	11443	CB	ASN	S	32	-72.134	91.169	37.954	1	119.86	C
ATOM	11444	CG	ASN	S	32	-71.72	89.698	37.923	1	114.1	C
ATOM	11445	OD1	ASN	S	32	-70.929	89.226	38.753	1	101.11	O
ATOM	11446	ND2	ASN	S	32	-72.245	88.969	36.934	1	103.54	N
ATOM	11447	C	ASN	S	32	-72.713	91.636	40.398	1	115.59	C
ATOM	11448	O	ASN	S	32	-73.434	90.62	40.42	1	99.7	O
ATOM	11449	N	VAL	S	33	-72.716	92.576	41.347	1	116.84	N
ATOM	11450	CA	VAL	S	33	-73.576	92.549	42.543	1	109.42	C
ATOM	11451	CB	VAL	S	33	-72.762	92.323	43.855	1	100.72	C
ATOM	11452	CG1	VAL	S	33	-71.777	91.17	43.692	1	97.24	C
ATOM	11453	CG2	VAL	S	33	-72.05	93.588	44.308	1	104.07	C
ATOM	11454	C	VAL	S	33	-74.359	93.859	42.634	1	103.46	C
ATOM	11455	O	VAL	S	33	-74.183	94.762	41.821	1	104.29	O
ATOM	11456	N	ALA	S	34	-75.221	93.96	43.63	1	108.85	N
ATOM	11457	CA	ALA	S	34	-76.013	95.168	43.822	1	121.95	C
ATOM	11458	CB	ALA	S	34	-77.361	95.04	43.131	1	129.5	C
ATOM	11459	C	ALA	S	34	-76.219	95.466	45.282	1	122.02	C
ATOM	11460	O	ALA	S	34	-75.926	94.641	46.155	1	134.58	O
ATOM	11461	N	TRP	S	35	-76.706	96.673	45.531	1	109.12	N
ATOM	11462	CA	TRP	S	35	-77.056	97.094	46.865	1	105.16	C
ATOM	11463	CB	TRP	S	35	-76.008	98.055	47.424	1	98.47	C
ATOM	11464	CG	TRP	S	35	-74.661	97.4	47.65	1	97.3	C
ATOM	11465	CD1	TRP	S	35	-73.682	97.211	46.717	1	101.93	C
ATOM	11466	NE1	TRP	S	35	-72.593	96.585	47.281	1	105.07	N
ATOM	11467	CE2	TRP	S	35	-72.849	96.353	48.609	1	110.37	C
ATOM	11468	CD2	TRP	S	35	-74.15	96.851	48.881	1	105.87	C
ATOM	11469	CE3	TRP	S	35	-74.658	96.733	50.189	1	108.32	C
ATOM	11470	CZ3	TRP	S	35	-73.855	96.119	51.182	1	106.45	C
ATOM	11471	CH2	TRP	S	35	-72.562	95.635	50.878	1	101.84	C
ATOM	11472	CZ2	TRP	S	35	-72.043	95.739	49.605	1	107.95	C
ATOM	11473	C	TRP	S	35	-78.424	97.722	46.767	1	106.49	C
ATOM	11474	O	TRP	S	35	-78.731	98.368	45.763	1	113.41	O
ATOM	11475	N	TYR	S	36	-79.247	97.498	47.791	1	103.38	N
ATOM	11476	CA	TYR	S	36	-80.63	97.963	47.807	1	112.02	C
ATOM	11477	CB	TYR	S	36	-81.577	96.752	47.77	1	113.42	C
ATOM	11478	CG	TYR	S	36	-82.004	96.324	46.376	1	111.53	C
ATOM	11479	CD1	TYR	S	36	-81.195	95.499	45.588	1	118.53	C
ATOM	11480	CE1	TYR	S	36	-81.596	95.106	44.307	1	124.85	C
ATOM	11481	CZ	TYR	S	36	-82.824	95.535	43.796	1	120.65	C

ATOM	11482	OH	TYR	S	36	-83.22	95.146	42.522	1	99.95	O
ATOM	11483	CE2	TYR	S	36	-83.642	96.348	44.572	1	115.6	C
ATOM	11484	CD2	TYR	S	36	-83.228	96.738	45.846	1	113.59	C
ATOM	11485	C	TYR	S	36	-80.893	98.839	49.047	1	120.59	C
ATOM	11486	O	TYR	S	36	-80.377	98.544	50.133	1	118.09	O
ATOM	11487	N	GLN	S	37	-81.69	99.903	48.869	1	121.23	N
ATOM	11488	CA	GLN	S	37	-82.094	100.82	49.956	1	129.64	C
ATOM	11489	CB	GLN	S	37	-82.229	102.258	49.41	1	143.26	C
ATOM	11490	CG	GLN	S	37	-82.926	103.266	50.332	1	155.51	C
ATOM	11491	CD	GLN	S	37	-82.824	104.711	49.846	1	159.92	C
ATOM	11492	OE1	GLN	S	37	-83.449	105.1	48.851	1	164.35	O
ATOM	11493	NE2	GLN	S	37	-82.048	105.519	50.562	1	157.5	N
ATOM	11494	C	GLN	S	37	-83.411	100.381	50.598	1	125.53	C
ATOM	11495	O	GLN	S	37	-84.441	100.395	49.911	1	127.19	O
ATOM	11496	N	GLN	S	38	-83.391	100.016	51.891	1	113.72	N
ATOM	11497	CA	GLN	S	38	-84.637	99.684	52.617	1	135.46	C
ATOM	11498	CB	GLN	S	38	-84.545	98.353	53.383	1	146.87	C
ATOM	11499	CG	GLN	S	38	-85.927	97.855	53.848	1	150.21	C
ATOM	11500	CD	GLN	S	38	-85.904	96.618	54.731	1	142.3	C
ATOM	11501	OE1	GLN	S	38	-84.981	96.398	55.512	1	138.75	O
ATOM	11502	NE2	GLN	S	38	-86.944	95.814	54.62	1	142.28	N
ATOM	11503	C	GLN	S	38	-85.083	100.771	53.596	1	146.23	C
ATOM	11504	O	GLN	S	38	-84.289	101.255	54.388	1	140.53	O
ATOM	11505	N	LYS	S	39	-86.382	101.081	53.569	1	154.5	N
ATOM	11506	CA	LYS	S	39	-86.99	102.12	54.398	1	154.64	C
ATOM	11507	CB	LYS	S	39	-87.333	103.314	53.496	1	159.14	C
ATOM	11508	CG	LYS	S	39	-87.571	104.633	54.214	1	161.02	C
ATOM	11509	CD	LYS	S	39	-86.317	105.492	54.303	1	157.99	C
ATOM	11510	CE	LYS	S	39	-85.231	104.844	55.155	1	155.13	C
ATOM	11511	NZ	LYS	S	39	-84.153	105.793	55.554	1	158.17	N
ATOM	11512	C	LYS	S	39	-88.255	101.539	55.07	1	151.75	C
ATOM	11513	O	LYS	S	39	-89.223	101.248	54.361	1	146.87	O
ATOM	11514	N	PRO	S	40	-88.248	101.36	56.427	1	144.88	N
ATOM	11515	CA	PRO	S	40	-89.298	100.639	57.184	1	126.18	C
ATOM	11516	CB	PRO	S	40	-89.17	101.235	58.59	1	122.72	C
ATOM	11517	CG	PRO	S	40	-87.708	101.467	58.731	1	127.78	C
ATOM	11518	CD	PRO	S	40	-87.18	101.811	57.351	1	139.5	C
ATOM	11519	C	PRO	S	40	-90.742	100.754	56.667	1	111.41	C
ATOM	11520	O	PRO	S	40	-91.279	101.858	56.549	1	91.29	O
ATOM	11521	N	GLY	S	41	-91.334	99.601	56.351	1	108.57	N
ATOM	11522	CA	GLY	S	41	-92.714	99.511	55.883	1	119.12	C
ATOM	11523	C	GLY	S	41	-92.931	99.841	54.414	1	130.07	C
ATOM	11524	O	GLY	S	41	-94.057	100.146	54.012	1	144.59	O
ATOM	11525	N	GLN	S	42	-91.869	99.791	53.609	1	132.57	N

ATOM	11526	CA	GLN	S	42	-91.953	100.076	52.171	1	131.61	C
ATOM	11527	CB	GLN	S	42	-91.501	101.505	51.859	1	134.54	C
ATOM	11528	CG	GLN	S	42	-92.198	102.623	52.618	1	134.87	C
ATOM	11529	CD	GLN	S	42	-91.205	103.608	53.218	1	141.56	C
ATOM	11530	OE1	GLN	S	42	-90.353	104.154	52.512	1	130.77	O
ATOM	11531	NE2	GLN	S	42	-91.309	103.837	54.529	1	142.59	N
ATOM	11532	C	GLN	S	42	-91.064	99.124	51.376	1	127.82	C
ATOM	11533	O	GLN	S	42	-90.02	98.655	51.873	1	107.07	O
ATOM	11534	N	SER	S	43	-91.473	98.875	50.129	1	131.3	N
ATOM	11535	CA	SER	S	43	-90.677	98.09	49.18	1	129.46	C
ATOM	11536	CB	SER	S	43	-91.447	97.853	47.874	1	119.32	C
ATOM	11537	OG	SER	S	43	-92.055	99.041	47.391	1	116.82	O
ATOM	11538	C	SER	S	43	-89.345	98.796	48.908	1	130.8	C
ATOM	11539	O	SER	S	43	-89.301	100.03	48.884	1	140.83	O
ATOM	11540	N	PRO	S	44	-88.255	98.027	48.72	1	126.14	N
ATOM	11541	CA	PRO	S	44	-86.963	98.688	48.652	1	123.76	C
ATOM	11542	CB	PRO	S	44	-85.963	97.547	48.913	1	122.4	C
ATOM	11543	CG	PRO	S	44	-86.756	96.274	48.905	1	124.41	C
ATOM	11544	CD	PRO	S	44	-88.124	96.602	48.383	1	125.59	C
ATOM	11545	C	PRO	S	44	-86.725	99.321	47.289	1	129.05	C
ATOM	11546	O	PRO	S	44	-87.376	98.957	46.302	1	121.4	O
ATOM	11547	N	LYS	S	45	-85.808	100.278	47.256	1	140.26	N
ATOM	11548	CA	LYS	S	45	-85.364	100.877	46.002	1	151.75	C
ATOM	11549	CB	LYS	S	45	-85.596	102.411	45.931	1	162.88	C
ATOM	11550	CG	LYS	S	45	-86.058	103.136	47.206	1	169.34	C
ATOM	11551	CD	LYS	S	45	-86.883	104.382	46.877	1	165.45	C
ATOM	11552	CE	LYS	S	45	-87.109	105.278	48.087	1	154.1	C
ATOM	11553	NZ	LYS	S	45	-85.978	106.229	48.279	1	148.55	N
ATOM	11554	C	LYS	S	45	-83.905	100.476	45.82	1	149.33	C
ATOM	11555	O	LYS	S	45	-83.182	100.262	46.81	1	126.83	O
ATOM	11556	N	ALA	S	46	-83.501	100.348	44.553	1	144.88	N
ATOM	11557	CA	ALA	S	46	-82.175	99.845	44.171	1	140.75	C
ATOM	11558	CB	ALA	S	46	-82.302	98.919	42.972	1	149.86	C
ATOM	11559	C	ALA	S	46	-81.19	100.983	43.863	1	135.1	C
ATOM	11560	O	ALA	S	46	-81.585	102.03	43.337	1	133.65	O
ATOM	11561	N	LEU	S	47	-79.912	100.746	44.167	1	124.52	N
ATOM	11562	CA	LEU	S	47	-78.875	101.791	44.154	1	120.56	C
ATOM	11563	CB	LEU	S	47	-78.248	101.875	45.549	1	114.44	C
ATOM	11564	CG	LEU	S	47	-79.195	102.092	46.733	1	110.82	C
ATOM	11565	CD1	LEU	S	47	-78.371	102.269	48.005	1	110.52	C
ATOM	11566	CD2	LEU	S	47	-80.127	103.278	46.505	1	106.74	C
ATOM	11567	C	LEU	S	47	-77.735	101.641	43.132	1	120.25	C
ATOM	11568	O	LEU	S	47	-77.238	102.648	42.605	1	118.92	O
ATOM	11569	N	VAL	S	48	-77.315	100.407	42.865	1	115.66	N

ATOM	11570	CA	VAL	S	48	-76.039	100.148	42.211	1	114.25	C
ATOM	11571	CB	VAL	S	48	-74.948	100.062	43.326	1	109.1	C
ATOM	11572	CG1	VAL	S	48	-73.674	99.375	42.85	1	118.27	C
ATOM	11573	CG2	VAL	S	48	-74.633	101.442	43.905	1	96.96	C
ATOM	11574	C	VAL	S	48	-76.096	98.873	41.323	1	119.21	C
ATOM	11575	O	VAL	S	48	-76.309	97.778	41.835	1	130.03	O
ATOM	11576	N	TYR	S	49	-75.93	99.026	39.999	1	118.21	N
ATOM	11577	CA	TYR	S	49	-75.629	97.893	39.082	1	104.7	C
ATOM	11578	CB	TYR	S	49	-75.966	98.249	37.61	1	83.8	C
ATOM	11579	C	TYR	S	49	-74.138	97.477	39.293	1	106.31	C
ATOM	11580	O	TYR	S	49	-73.551	97.787	40.34	1	86.12	O
ATOM	11581	N	SER	S	50	-73.522	96.78	38.332	1	117.54	N
ATOM	11582	CA	SER	S	50	-72.18	96.181	38.546	1	128.22	C
ATOM	11583	CB	SER	S	50	-71.555	95.722	37.223	1	135.47	C
ATOM	11584	OG	SER	S	50	-70.266	95.16	37.428	1	134.12	O
ATOM	11585	C	SER	S	50	-71.238	97.154	39.233	1	128.21	C
ATOM	11586	O	SER	S	50	-71.2	98.322	38.857	1	134.02	O
ATOM	11587	N	THR	S	51	-70.488	96.671	40.225	1	136.76	N
ATOM	11588	CA	THR	S	51	-69.668	97.542	41.09	1	151.48	C
ATOM	11589	CB	THR	S	51	-68.731	96.743	42.031	1	161.69	C
ATOM	11590	OG1	THR	S	51	-68.049	95.716	41.296	1	177.54	O
ATOM	11591	CG2	THR	S	51	-69.53	96.123	43.175	1	154.04	C
ATOM	11592	C	THR	S	51	-68.864	98.594	40.305	1	145.28	C
ATOM	11593	O	THR	S	51	-67.748	98.334	39.822	1	116.92	O
ATOM	11594	N	SER	S	52	-69.488	99.775	40.208	1	143.16	N
ATOM	11595	CA	SER	S	52	-69.047	100.936	39.425	1	139.08	C
ATOM	11596	CB	SER	S	52	-68.459	100.553	38.057	1	133.82	C
ATOM	11597	OG	SER	S	52	-67.083	100.248	38.156	1	138.91	O
ATOM	11598	C	SER	S	52	-70.278	101.805	39.203	1	145.52	C
ATOM	11599	O	SER	S	52	-70.396	102.894	39.762	1	154.52	O
ATOM	11600	N	TYR	S	53	-71.221	101.261	38.438	1	147.71	N
ATOM	11601	CA	TYR	S	53	-72.34	102.017	37.881	1	137.96	C
ATOM	11602	CB	TYR	S	53	-72.944	101.3	36.661	1	143.49	C
ATOM	11603	CG	TYR	S	53	-71.999	100.973	35.51	1	146.37	C
ATOM	11604	CD1	TYR	S	53	-71.09	99.908	35.595	1	146.28	C
ATOM	11605	CE1	TYR	S	53	-70.247	99.593	34.54	1	149.2	C
ATOM	11606	CZ	TYR	S	53	-70.313	100.326	33.368	1	148.51	C
ATOM	11607	OH	TYR	S	53	-69.477	99.995	32.331	1	151.84	O
ATOM	11608	CE2	TYR	S	53	-71.211	101.376	33.245	1	147.27	C
ATOM	11609	CD2	TYR	S	53	-72.053	101.689	34.306	1	147.38	C
ATOM	11610	C	TYR	S	53	-73.422	102.152	38.94	1	127.28	C
ATOM	11611	O	TYR	S	53	-73.521	101.305	39.835	1	111.32	O
ATOM	11612	N	ARG	S	54	-74.229	103.207	38.825	1	130.14	N
ATOM	11613	CA	ARG	S	54	-75.376	103.445	39.72	1	137.72	C

ATOM	11614	CB	ARG	S	54	-75.36	104.873	40.287	1	151.59	C
ATOM	11615	CG	ARG	S	54	-74.124	105.25	41.093	1	157.16	C
ATOM	11616	CD	ARG	S	54	-74.372	106.494	41.938	1	161.33	C
ATOM	11617	NE	ARG	S	54	-73.217	107.395	41.945	1	166.36	N
ATOM	11618	CZ	ARG	S	54	-72.92	108.284	40.99	1	167.96	C
ATOM	11619	NH1	ARG	S	54	-73.689	108.433	39.906	1	172.55	N
ATOM	11620	NH2	ARG	S	54	-71.837	109.045	41.12	1	160.14	N
ATOM	11621	C	ARG	S	54	-76.7	103.217	38.989	1	124.01	C
ATOM	11622	O	ARG	S	54	-76.731	103.133	37.757	1	107.13	O
ATOM	11623	N	TYR	S	55	-77.784	103.154	39.768	1	123.71	N
ATOM	11624	CA	TYR	S	55	-79.15	102.914	39.256	1	122.64	C
ATOM	11625	CB	TYR	S	55	-80.013	102.178	40.315	1	124.24	C
ATOM	11626	CG	TYR	S	55	-80.256	100.701	40.023	1	125.88	C
ATOM	11627	CD1	TYR	S	55	-79.313	99.734	40.382	1	122.32	C
ATOM	11628	CE1	TYR	S	55	-79.527	98.383	40.123	1	129.97	C
ATOM	11629	CZ	TYR	S	55	-80.707	97.981	39.494	1	134.13	C
ATOM	11630	OH	TYR	S	55	-80.912	96.644	39.246	1	131.87	O
ATOM	11631	CE2	TYR	S	55	-81.662	98.924	39.122	1	127.43	C
ATOM	11632	CD2	TYR	S	55	-81.436	100.272	39.388	1	128.69	C
ATOM	11633	C	TYR	S	55	-79.8	104.231	38.807	1	111.61	C
ATOM	11634	O	TYR	S	55	-79.117	105.247	38.726	1	106.2	O
ATOM	11635	N	SER	S	56	-81.098	104.199	38.486	1	109.43	N
ATOM	11636	CA	SER	S	56	-81.886	105.405	38.182	1	118.03	C
ATOM	11637	CB	SER	S	56	-83.327	105	37.873	1	115.99	C
ATOM	11638	OG	SER	S	56	-84.118	106.128	37.54	1	117.79	O
ATOM	11639	C	SER	S	56	-81.863	106.441	39.327	1	137.27	C
ATOM	11640	O	SER	S	56	-81.183	106.226	40.325	1	154.41	O
ATOM	11641	N	GLY	S	57	-82.598	107.55	39.176	1	145.08	N
ATOM	11642	CA	GLY	S	57	-82.635	108.658	40.163	1	140.2	C
ATOM	11643	C	GLY	S	57	-82.096	108.359	41.557	1	134.83	C
ATOM	11644	O	GLY	S	57	-82.847	108.022	42.47	1	123.2	O
ATOM	11645	N	VAL	S	58	-80.778	108.463	41.695	1	133.7	N
ATOM	11646	CA	VAL	S	58	-80.07	108.15	42.936	1	140.38	C
ATOM	11647	CB	VAL	S	58	-79.382	106.76	42.851	1	141.29	C
ATOM	11648	CG1	VAL	S	58	-78.187	106.643	43.797	1	140.92	C
ATOM	11649	CG2	VAL	S	58	-80.382	105.644	43.137	1	141.32	C
ATOM	11650	C	VAL	S	58	-79.027	109.241	43.145	1	148.83	C
ATOM	11651	O	VAL	S	58	-78.298	109.572	42.206	1	162.29	O
ATOM	11652	N	PRO	S	59	-78.941	109.796	44.37	1	153.82	N
ATOM	11653	CA	PRO	S	59	-77.86	110.733	44.669	1	156	C
ATOM	11654	CB	PRO	S	59	-77.974	110.924	46.181	1	169.2	C
ATOM	11655	CG	PRO	S	59	-79.423	110.736	46.466	1	172.88	C
ATOM	11656	CD	PRO	S	59	-79.928	109.732	45.464	1	163.19	C
ATOM	11657	C	PRO	S	59	-76.5	110.159	44.307	1	142.74	C

ATOM	11658	O	PRO	S	59	-76.23	108.997	44.591	1	128.59	O
ATOM	11659	N	ASP	S	60	-75.649	110.973	43.695	1	142.88	N
ATOM	11660	CA	ASP	S	60	-74.352	110.502	43.203	1	145.59	C
ATOM	11661	CB	ASP	S	60	-73.72	111.56	42.286	1	150.92	C
ATOM	11662	CG	ASP	S	60	-73.241	112.792	43.049	1	161.1	C
ATOM	11663	OD1	ASP	S	60	-73.979	113.26	43.947	1	172.78	O
ATOM	11664	OD2	ASP	S	60	-72.132	113.289	42.75	1	159.26	O
ATOM	11665	C	ASP	S	60	-73.346	110.105	44.303	1	146.47	C
ATOM	11666	O	ASP	S	60	-72.232	109.696	43.984	1	141.1	O
ATOM	11667	N	ARG	S	61	-73.738	110.215	45.577	1	147.81	N
ATOM	11668	CA	ARG	S	61	-72.839	109.988	46.717	1	149.85	C
ATOM	11669	CB	ARG	S	61	-73.408	110.655	47.973	1	156.4	C
ATOM	11670	CG	ARG	S	61	-73.612	112.159	47.835	1	165.69	C
ATOM	11671	CD	ARG	S	61	-74.394	112.736	49.004	1	167.7	C
ATOM	11672	NE	ARG	S	61	-75.844	112.502	48.906	1	160.12	N
ATOM	11673	CZ	ARG	S	61	-76.55	111.579	49.57	1	135.74	C
ATOM	11674	NH1	ARG	S	61	-77.866	111.503	49.368	1	124.03	N
ATOM	11675	NH2	ARG	S	61	-75.978	110.737	50.435	1	127.57	N
ATOM	11676	C	ARG	S	61	-72.577	108.505	46.993	1	148.8	C
ATOM	11677	O	ARG	S	61	-71.479	108.146	47.427	1	134.38	O
ATOM	11678	N	PHE	S	62	-73.587	107.663	46.735	1	151.01	N
ATOM	11679	CA	PHE	S	62	-73.473	106.193	46.839	1	141.05	C
ATOM	11680	CB	PHE	S	62	-74.832	105.489	46.665	1	139.12	C
ATOM	11681	CG	PHE	S	62	-75.946	105.995	47.556	1	144.9	C
ATOM	11682	CD1	PHE	S	62	-76.101	105.525	48.86	1	145.08	C
ATOM	11683	CE1	PHE	S	62	-77.153	105.975	49.656	1	145.37	C
ATOM	11684	CZ	PHE	S	62	-78.075	106.886	49.15	1	144.24	C
ATOM	11685	CE2	PHE	S	62	-77.948	107.344	47.848	1	144.06	C
ATOM	11686	CD2	PHE	S	62	-76.897	106.89	47.057	1	148.1	C
ATOM	11687	C	PHE	S	62	-72.563	105.676	45.715	1	137.46	C
ATOM	11688	O	PHE	S	62	-72.641	106.172	44.588	1	145.92	O
ATOM	11689	N	THR	S	63	-71.726	104.678	45.992	1	122.87	N
ATOM	11690	CA	THR	S	63	-70.846	104.121	44.956	1	123.16	C
ATOM	11691	CB	THR	S	63	-69.516	104.902	44.88	1	120.72	C
ATOM	11692	OG1	THR	S	63	-69.78	106.3	44.726	1	121.91	O
ATOM	11693	CG2	THR	S	63	-68.649	104.438	43.703	1	123.02	C
ATOM	11694	C	THR	S	63	-70.544	102.635	45.175	1	138.34	C
ATOM	11695	O	THR	S	63	-70.035	102.249	46.232	1	144.11	O
ATOM	11696	N	GLY	S	64	-70.855	101.812	44.166	1	144.89	N
ATOM	11697	CA	GLY	S	64	-70.463	100.396	44.143	1	139.12	C
ATOM	11698	C	GLY	S	64	-68.96	100.227	44.046	1	131.89	C
ATOM	11699	O	GLY	S	64	-68.276	101.061	43.458	1	144.09	O
ATOM	11700	N	SER	S	65	-68.446	99.147	44.622	1	122.93	N
ATOM	11701	CA	SER	S	65	-66.999	98.942	44.738	1	121.42	C

ATOM	11702	CB	SER	S	65	-66.435	99.834	45.864	1	121.25	C
ATOM	11703	OG	SER	S	65	-65.276	99.283	46.481	1	110.29	O
ATOM	11704	C	SER	S	65	-66.685	97.472	44.997	1	123.74	C
ATOM	11705	O	SER	S	65	-67.503	96.753	45.558	1	134.74	O
ATOM	11706	N	GLY	S	66	-65.503	97.039	44.568	1	126.87	N
ATOM	11707	CA	GLY	S	66	-65.016	95.681	44.812	1	131.41	C
ATOM	11708	C	GLY	S	66	-65.093	94.749	43.616	1	138.44	C
ATOM	11709	O	GLY	S	66	-65.789	95.023	42.628	1	130.48	O
ATOM	11710	N	SER	S	67	-64.359	93.64	43.723	1	149.88	N
ATOM	11711	CA	SER	S	67	-64.274	92.631	42.664	1	155.03	C
ATOM	11712	CB	SER	S	67	-63.09	92.935	41.734	1	160.24	C
ATOM	11713	OG	SER	S	67	-63.268	94.168	41.052	1	156.25	O
ATOM	11714	C	SER	S	67	-64.131	91.222	43.237	1	143.33	C
ATOM	11715	O	SER	S	67	-63.816	91.045	44.418	1	124.41	O
ATOM	11716	N	GLY	S	68	-64.365	90.236	42.373	1	139.96	N
ATOM	11717	CA	GLY	S	68	-64.196	88.816	42.703	1	140.18	C
ATOM	11718	C	GLY	S	68	-65.179	88.243	43.712	1	132.19	C
ATOM	11719	O	GLY	S	68	-66.281	87.834	43.35	1	119.41	O
ATOM	11720	N	THR	S	69	-64.741	88.183	44.971	1	136.96	N
ATOM	11721	CA	THR	S	69	-65.564	87.771	46.122	1	135.5	C
ATOM	11722	CB	THR	S	69	-64.931	86.558	46.856	1	138.81	C
ATOM	11723	OG1	THR	S	69	-63.545	86.812	47.12	1	145.75	O
ATOM	11724	CG2	THR	S	69	-65.048	85.308	46.026	1	141.91	C
ATOM	11725	C	THR	S	69	-65.781	88.897	47.16	1	121.44	C
ATOM	11726	O	THR	S	69	-66.431	88.682	48.181	1	113.5	O
ATOM	11727	N	ASP	S	70	-65.237	90.084	46.912	1	112.51	N
ATOM	11728	CA	ASP	S	70	-65.348	91.182	47.854	1	114.74	C
ATOM	11729	CB	ASP	S	70	-63.975	91.565	48.377	1	115.59	C
ATOM	11730	CG	ASP	S	70	-63.543	90.69	49.504	1	113.48	C
ATOM	11731	OD1	ASP	S	70	-63.544	89.455	49.316	1	107.6	O
ATOM	11732	OD2	ASP	S	70	-63.233	91.24	50.581	1	121.51	O
ATOM	11733	C	ASP	S	70	-65.991	92.354	47.166	1	119.22	C
ATOM	11734	O	ASP	S	70	-65.686	92.638	46.003	1	124.3	O
ATOM	11735	N	PHE	S	71	-66.894	93.016	47.889	1	113.92	N
ATOM	11736	CA	PHE	S	71	-67.736	94.076	47.331	1	117.38	C
ATOM	11737	CB	PHE	S	71	-69.057	93.475	46.824	1	113.58	C
ATOM	11738	CG	PHE	S	71	-68.859	92.382	45.807	1	114.25	C
ATOM	11739	CD1	PHE	S	71	-68.67	91.062	46.206	1	117.22	C
ATOM	11740	CE1	PHE	S	71	-68.444	90.057	45.272	1	118.45	C
ATOM	11741	CZ	PHE	S	71	-68.405	90.362	43.924	1	122.28	C
ATOM	11742	CE2	PHE	S	71	-68.574	91.677	43.518	1	128.25	C
ATOM	11743	CD2	PHE	S	71	-68.795	92.676	44.455	1	120.05	C
ATOM	11744	C	PHE	S	71	-67.946	95.152	48.397	1	120.92	C
ATOM	11745	O	PHE	S	71	-67.532	94.954	49.544	1	132.35	O

ATOM	11746	N	THR	S	72	-68.545	96.29	48.026	1	114.73	N
ATOM	11747	CA	THR	S	72	-68.807	97.389	48.984	1	106.4	C
ATOM	11748	CB	THR	S	72	-67.487	98.101	49.425	1	103.26	C
ATOM	11749	OG1	THR	S	72	-66.743	97.259	50.32	1	96.96	O
ATOM	11750	CG2	THR	S	72	-67.751	99.42	50.158	1	104.83	C
ATOM	11751	C	THR	S	72	-69.808	98.427	48.455	1	102.4	C
ATOM	11752	O	THR	S	72	-69.791	98.772	47.275	1	107.74	O
ATOM	11753	N	LEU	S	73	-70.685	98.902	49.338	1	102.22	N
ATOM	11754	CA	LEU	S	73	-71.401	100.151	49.123	1	110.36	C
ATOM	11755	CB	LEU	S	73	-72.878	100.033	49.488	1	114.89	C
ATOM	11756	CG	LEU	S	73	-73.683	101.338	49.623	1	122.98	C
ATOM	11757	CD1	LEU	S	73	-73.575	102.19	48.368	1	123.64	C
ATOM	11758	CD2	LEU	S	73	-75.145	101.048	49.942	1	127.4	C
ATOM	11759	C	LEU	S	73	-70.729	101.171	50.017	1	121.66	C
ATOM	11760	O	LEU	S	73	-70.485	100.892	51.197	1	126.06	O
ATOM	11761	N	THR	S	74	-70.413	102.334	49.442	1	126.88	N
ATOM	11762	CA	THR	S	74	-69.889	103.482	50.183	1	122.13	C
ATOM	11763	CB	THR	S	74	-68.335	103.568	50.061	1	118.01	C
ATOM	11764	OG1	THR	S	74	-67.738	102.475	50.768	1	113.54	O
ATOM	11765	CG2	THR	S	74	-67.753	104.862	50.634	1	117.96	C
ATOM	11766	C	THR	S	74	-70.605	104.759	49.705	1	128.26	C
ATOM	11767	O	THR	S	74	-71.075	104.839	48.562	1	106.88	O
ATOM	11768	N	ILE	S	75	-70.712	105.724	50.62	1	148.9	N
ATOM	11769	CA	ILE	S	75	-71.322	107.029	50.367	1	158.49	C
ATOM	11770	CB	ILE	S	75	-72.638	107.196	51.153	1	156.55	C
ATOM	11771	CG1	ILE	S	75	-73.434	105.883	51.131	1	153.74	C
ATOM	11772	CD1	ILE	S	75	-74.707	105.893	51.942	1	153.69	C
ATOM	11773	CG2	ILE	S	75	-73.443	108.354	50.574	1	159.88	C
ATOM	11774	C	ILE	S	75	-70.332	108.111	50.798	1	177.3	C
ATOM	11775	O	ILE	S	75	-69.638	107.932	51.799	1	184.95	O
ATOM	11776	N	SER	S	76	-70.254	109.213	50.048	1	186.55	N
ATOM	11777	CA	SER	S	76	-69.338	110.321	50.384	1	180.1	C
ATOM	11778	CB	SER	S	76	-69.016	111.172	49.147	1	180.15	C
ATOM	11779	OG	SER	S	76	-70.157	111.88	48.689	1	188.79	O
ATOM	11780	C	SER	S	76	-69.885	111.22	51.498	1	167.25	C
ATOM	11781	O	SER	S	76	-69.135	111.631	52.382	1	160.39	O
ATOM	11782	N	ASN	S	77	-71.183	111.519	51.446	1	155.56	N
ATOM	11783	CA	ASN	S	77	-71.802	112.492	52.341	1	154.08	C
ATOM	11784	CB	ASN	S	77	-71.919	113.832	51.604	1	161.25	C
ATOM	11785	CG	ASN	S	77	-72.58	114.915	52.433	1	154.12	C
ATOM	11786	OD1	ASN	S	77	-73.636	115.422	52.056	1	149.66	O
ATOM	11787	ND2	ASN	S	77	-71.959	115.286	53.553	1	141.71	N
ATOM	11788	C	ASN	S	77	-73.162	112.019	52.842	1	150.91	C
ATOM	11789	O	ASN	S	77	-74.175	112.158	52.149	1	146.48	O

ATOM	11790	N	VAL	S	78	-73.176	111.468	54.055	1	148.04	N
ATOM	11791	CA	VAL	S	78	-74.405	110.934	54.66	1	147.72	C
ATOM	11792	CB	VAL	S	78	-74.111	110.159	55.981	1	145.42	C
ATOM	11793	CG1	VAL	S	78	-75.386	109.851	56.765	1	143.41	C
ATOM	11794	CG2	VAL	S	78	-73.348	108.867	55.696	1	140.99	C
ATOM	11795	C	VAL	S	78	-75.428	112.055	54.895	1	146.93	C
ATOM	11796	O	VAL	S	78	-75.063	113.188	55.238	1	141.73	O
ATOM	11797	N	GLN	S	79	-76.7	111.713	54.687	1	153.03	N
ATOM	11798	CA	GLN	S	79	-77.828	112.621	54.891	1	156.92	C
ATOM	11799	CB	GLN	S	79	-78.64	112.796	53.605	1	152.99	C
ATOM	11800	CG	GLN	S	79	-77.837	112.998	52.331	1	150.8	C
ATOM	11801	CD	GLN	S	79	-77.135	114.336	52.262	1	142.56	C
ATOM	11802	OE1	GLN	S	79	-77.751	115.386	52.46	1	138.86	O
ATOM	11803	NE2	GLN	S	79	-75.844	114.309	51.952	1	133.32	N
ATOM	11804	C	GLN	S	79	-78.755	112.081	55.972	1	158.99	C
ATOM	11805	O	GLN	S	79	-78.698	110.903	56.35	1	129.72	O
ATOM	11806	N	SER	S	80	-79.642	112.957	56.429	1	172.2	N
ATOM	11807	CA	SER	S	80	-80.519	112.652	57.55	1	172.94	C
ATOM	11808	CB	SER	S	80	-80.9	113.931	58.315	1	174.41	C
ATOM	11809	OG	SER	S	80	-80.825	113.724	59.72	1	165.49	O
ATOM	11810	C	SER	S	80	-81.766	111.863	57.125	1	170.86	C
ATOM	11811	O	SER	S	80	-82.553	111.477	57.988	1	178.03	O
ATOM	11812	N	GLU	S	81	-81.946	111.619	55.82	1	168.33	N
ATOM	11813	CA	GLU	S	81	-83.007	110.715	55.329	1	170.74	C
ATOM	11814	CB	GLU	S	81	-83.948	111.439	54.335	1	172.52	C
ATOM	11815	CG	GLU	S	81	-83.624	111.351	52.837	1	171.91	C
ATOM	11816	CD	GLU	S	81	-82.36	112.085	52.421	1	165.33	C
ATOM	11817	OE1	GLU	S	81	-81.655	112.632	53.296	1	159.51	O
ATOM	11818	OE2	GLU	S	81	-82.078	112.118	51.204	1	153	O
ATOM	11819	C	GLU	S	81	-82.49	109.387	54.748	1	160.24	C
ATOM	11820	O	GLU	S	81	-83.299	108.525	54.408	1	145.93	O
ATOM	11821	N	ASP	S	82	-81.168	109.216	54.647	1	156.42	N
ATOM	11822	CA	ASP	S	82	-80.572	107.97	54.134	1	147.05	C
ATOM	11823	CB	ASP	S	82	-79.522	108.294	53.061	1	142.5	C
ATOM	11824	CG	ASP	S	82	-80.121	108.985	51.845	1	150.6	C
ATOM	11825	OD1	ASP	S	82	-81.368	109.076	51.736	1	146.32	O
ATOM	11826	OD2	ASP	S	82	-79.336	109.438	50.987	1	162.01	O
ATOM	11827	C	ASP	S	82	-79.975	107.103	55.255	1	141.96	C
ATOM	11828	O	ASP	S	82	-78.873	106.561	55.113	1	109.82	O
ATOM	11829	N	LEU	S	83	-80.729	106.96	56.351	1	152.46	N
ATOM	11830	CA	LEU	S	83	-80.355	106.111	57.486	1	165.23	C
ATOM	11831	CB	LEU	S	83	-80.444	106.875	58.799	1	165.69	C
ATOM	11832	CG	LEU	S	83	-79.595	108.134	58.846	1	169.15	C
ATOM	11833	CD1	LEU	S	83	-80.417	109.339	58.448	1	164.56	C

ATOM	11834	CD2	LEU	S	83	-79.006	108.32	60.233	1	173.89	C
ATOM	11835	C	LEU	S	83	-81.321	104.95	57.547	1	172.61	C
ATOM	11836	O	LEU	S	83	-82.504	105.142	57.852	1	198.81	O
ATOM	11837	N	ALA	S	84	-80.835	103.75	57.252	1	157.48	N
ATOM	11838	CA	ALA	S	84	-81.719	102.598	57.11	1	147.68	C
ATOM	11839	CB	ALA	S	84	-82.567	102.754	55.854	1	135.55	C
ATOM	11840	C	ALA	S	84	-80.93	101.298	57.074	1	143.1	C
ATOM	11841	O	ALA	S	84	-79.742	101.29	57.402	1	137.09	O
ATOM	11842	N	GLU	S	85	-81.601	100.201	56.719	1	140.18	N
ATOM	11843	CA	GLU	S	85	-80.919	98.949	56.42	1	132.69	C
ATOM	11844	CB	GLU	S	85	-81.789	97.724	56.75	1	138.67	C
ATOM	11845	CG	GLU	S	85	-81.009	96.435	57.058	1	139.01	C
ATOM	11846	CD	GLU	S	85	-81.728	95.467	58.014	1	150.98	C
ATOM	11847	OE1	GLU	S	85	-82.859	95.759	58.471	1	153.94	O
ATOM	11848	OE2	GLU	S	85	-81.157	94.395	58.329	1	153.71	O
ATOM	11849	C	GLU	S	85	-80.541	99.001	54.951	1	124.4	C
ATOM	11850	O	GLU	S	85	-81.274	99.583	54.129	1	116.73	O
ATOM	11851	N	TYR	S	86	-79.383	98.419	54.641	1	117.2	N
ATOM	11852	CA	TYR	S	86	-78.838	98.399	53.283	1	114.55	C
ATOM	11853	CB	TYR	S	86	-77.677	99.403	53.162	1	117.01	C
ATOM	11854	CG	TYR	S	86	-78.112	100.855	53.047	1	117.36	C
ATOM	11855	CD1	TYR	S	86	-79.13	101.233	52.163	1	122.22	C
ATOM	11856	CE1	TYR	S	86	-79.539	102.552	52.04	1	114.28	C
ATOM	11857	CZ	TYR	S	86	-78.92	103.521	52.794	1	113.68	C
ATOM	11858	OH	TYR	S	86	-79.33	104.826	52.659	1	117.45	O
ATOM	11859	CE2	TYR	S	86	-77.899	103.182	53.677	1	113.69	C
ATOM	11860	CD2	TYR	S	86	-77.496	101.855	53.795	1	112.15	C
ATOM	11861	C	TYR	S	86	-78.374	96.991	52.901	1	111.49	C
ATOM	11862	O	TYR	S	86	-77.456	96.449	53.522	1	110.57	O
ATOM	11863	N	PHE	S	87	-78.994	96.419	51.865	1	111.64	N
ATOM	11864	CA	PHE	S	87	-78.823	94.998	51.534	1	113.69	C
ATOM	11865	CB	PHE	S	87	-80.187	94.352	51.257	1	112.53	C
ATOM	11866	CG	PHE	S	87	-81.086	94.279	52.463	1	109.64	C
ATOM	11867	CD1	PHE	S	87	-80.693	93.582	53.617	1	101.77	C
ATOM	11868	CE1	PHE	S	87	-81.527	93.522	54.726	1	97.54	C
ATOM	11869	CZ	PHE	S	87	-82.773	94.148	54.691	1	97.47	C
ATOM	11870	CE2	PHE	S	87	-83.177	94.825	53.55	1	99.1	C
ATOM	11871	CD2	PHE	S	87	-82.34	94.888	52.444	1	106.73	C
ATOM	11872	C	PHE	S	87	-77.913	94.723	50.337	1	113.68	C
ATOM	11873	O	PHE	S	87	-78.107	95.288	49.259	1	109.77	O
ATOM	11874	N	CYS	S	88	-76.978	93.789	50.531	1	113.35	N
ATOM	11875	CA	CYS	S	88	-76.146	93.215	49.465	1	115.93	C
ATOM	11876	CB	CYS	S	88	-75.038	92.339	50.075	1	118.27	C
ATOM	11877	SG	CYS	S	88	-73.623	92.036	48.994	1	129.57	S

ATOM	11878	C	CYS	S	88	-77.06	92.366	48.576	1	117.6	C
ATOM	11879	O	CYS	S	88	-78.263	92.316	48.825	1	131.34	O
ATOM	11880	N	HIS	S	89	-76.51	91.691	47.565	1	110.96	N
ATOM	11881	CA	HIS	S	89	-77.326	90.918	46.603	1	98.43	C
ATOM	11882	CB	HIS	S	89	-78.54	91.752	46.16	1	96.09	C
ATOM	11883	CG	HIS	S	89	-79.167	91.331	44.876	1	96.89	C
ATOM	11884	ND1	HIS	S	89	-79.631	92.249	43.961	1	100.7	N
ATOM	11885	CE1	HIS	S	89	-80.162	91.616	42.934	1	103.54	C
ATOM	11886	NE2	HIS	S	89	-80.066	90.317	43.155	1	103.81	N
ATOM	11887	CD2	HIS	S	89	-79.463	90.112	44.372	1	96.57	C
ATOM	11888	C	HIS	S	89	-76.461	90.552	45.428	1	94.04	C
ATOM	11889	O	HIS	S	89	-75.704	91.384	44.961	1	113.4	O
ATOM	11890	N	GLN	S	90	-76.563	89.313	44.963	1	91.95	N
ATOM	11891	CA	GLN	S	90	-75.807	88.844	43.789	1	95.44	C
ATOM	11892	CB	GLN	S	90	-74.97	87.61	44.152	1	97.12	C
ATOM	11893	CG	GLN	S	90	-75.766	86.331	44.361	1	96.09	C
ATOM	11894	CD	GLN	S	90	-75.898	85.483	43.112	1	100.83	C
ATOM	11895	OE1	GLN	S	90	-74.898	85.087	42.522	1	108.03	O
ATOM	11896	NE2	GLN	S	90	-77.138	85.184	42.711	1	101.59	N
ATOM	11897	C	GLN	S	90	-76.725	88.527	42.616	1	88.17	C
ATOM	11898	O	GLN	S	90	-77.858	88.114	42.818	1	83.17	O
ATOM	11899	N	TYR	S	91	-76.231	88.717	41.398	1	90.51	N
ATOM	11900	CA	TYR	S	91	-76.937	88.257	40.196	1	102.49	C
ATOM	11901	CB	TYR	S	91	-77.722	89.389	39.497	1	107.13	C
ATOM	11902	CG	TYR	S	91	-76.885	90.574	39.109	1	116.45	C
ATOM	11903	CD1	TYR	S	91	-76.507	91.532	40.055	1	113.43	C
ATOM	11904	CE1	TYR	S	91	-75.715	92.607	39.696	1	117.54	C
ATOM	11905	CZ	TYR	S	91	-75.285	92.735	38.382	1	126.15	C
ATOM	11906	OH	TYR	S	91	-74.495	93.788	37.994	1	130.12	O
ATOM	11907	CE2	TYR	S	91	-75.641	91.801	37.434	1	130.35	C
ATOM	11908	CD2	TYR	S	91	-76.435	90.726	37.797	1	124.62	C
ATOM	11909	C	TYR	S	91	-75.861	87.636	39.33	1	98.42	C
ATOM	11910	O	TYR	S	91	-74.933	88.306	38.895	1	114.61	O
ATOM	11911	N	ASN	S	92	-75.941	86.329	39.153	1	95.11	N
ATOM	11912	CA	ASN	S	92	-74.791	85.577	38.717	1	100.62	C
ATOM	11913	CB	ASN	S	92	-73.66	85.687	39.75	1	99.04	C
ATOM	11914	CG	ASN	S	92	-72.293	85.647	39.124	1	98.97	C
ATOM	11915	OD1	ASN	S	92	-71.449	86.496	39.393	1	104.24	O
ATOM	11916	ND2	ASN	S	92	-72.058	84.648	38.301	1	100.81	N
ATOM	11917	C	ASN	S	92	-75.104	84.11	38.506	1	118.67	C
ATOM	11918	O	ASN	S	92	-74.818	83.595	37.438	1	145.44	O
ATOM	11919	N	SER	S	93	-75.68	83.433	39.504	1	123.69	N
ATOM	11920	CA	SER	S	93	-75.739	81.96	39.479	1	134.12	C
ATOM	11921	CB	SER	S	93	-75.704	81.381	40.912	1	137.47	C

ATOM	11922	OG	SER	S	93	-76.134	80.027	40.979	1	138.91	O
ATOM	11923	C	SER	S	93	-76.808	81.321	38.519	1	146.44	C
ATOM	11924	O	SER	S	93	-76.434	80.942	37.406	1	160.72	O
ATOM	11925	N	TYR	S	94	-78.096	81.188	38.865	1	138.7	N
ATOM	11926	CA	TYR	S	94	-78.703	81.7	40.074	1	120.24	C
ATOM	11927	CB	TYR	S	94	-79.085	83.154	39.893	1	109.1	C
ATOM	11928	CG	TYR	S	94	-80.385	83.427	39.126	1	107.15	C
ATOM	11929	CD1	TYR	S	94	-80.559	83.013	37.807	1	102.28	C
ATOM	11930	CE1	TYR	S	94	-81.726	83.313	37.114	1	100.51	C
ATOM	11931	CZ	TYR	S	94	-82.729	84.039	37.736	1	96.42	C
ATOM	11932	OH	TYR	S	94	-83.87	84.368	37.069	1	90.51	O
ATOM	11933	CE2	TYR	S	94	-82.585	84.458	39.034	1	99.14	C
ATOM	11934	CD2	TYR	S	94	-81.421	84.154	39.719	1	107.85	C
ATOM	11935	C	TYR	S	94	-79.934	80.963	40.553	1	120.82	C
ATOM	11936	O	TYR	S	94	-80.897	80.758	39.8	1	119.09	O
ATOM	11937	N	PRO	S	95	-79.862	80.514	41.809	1	112.8	N
ATOM	11938	CA	PRO	S	95	-80.863	80.994	42.722	1	103.99	C
ATOM	11939	CB	PRO	S	95	-80.901	79.927	43.802	1	109.98	C
ATOM	11940	CG	PRO	S	95	-79.531	79.334	43.803	1	116.67	C
ATOM	11941	CD	PRO	S	95	-78.932	79.565	42.442	1	116.05	C
ATOM	11942	C	PRO	S	95	-80.283	82.336	43.229	1	102.92	C
ATOM	11943	O	PRO	S	95	-79.139	82.385	43.708	1	94.96	O
ATOM	11944	N	LEU	S	96	-81.037	83.416	43.023	1	98.86	N
ATOM	11945	CA	LEU	S	96	-80.667	84.778	43.451	1	90.28	C
ATOM	11946	CB	LEU	S	96	-81.745	85.776	43.005	1	88.78	C
ATOM	11947	CG	LEU	S	96	-81.462	87.107	42.312	1	93.4	C
ATOM	11948	CD1	LEU	S	96	-80.427	87.061	41.2	1	96.24	C
ATOM	11949	CD2	LEU	S	96	-82.762	87.66	41.737	1	95.07	C
ATOM	11950	C	LEU	S	96	-80.527	84.793	44.967	1	91.16	C
ATOM	11951	O	LEU	S	96	-81.078	83.925	45.644	1	96.37	O
ATOM	11952	N	THR	S	97	-79.791	85.764	45.507	1	92.07	N
ATOM	11953	CA	THR	S	97	-79.341	85.693	46.922	1	89.8	C
ATOM	11954	CB	THR	S	97	-78.269	84.553	47.122	1	82.98	C
ATOM	11955	OG1	THR	S	97	-77.253	84.964	48.035	1	86.5	O
ATOM	11956	CG2	THR	S	97	-77.572	84.117	45.826	1	81.38	C
ATOM	11957	C	THR	S	97	-78.891	87.045	47.56	1	92.04	C
ATOM	11958	O	THR	S	97	-77.832	87.573	47.217	1	103.64	O
ATOM	11959	N	PHE	S	98	-79.691	87.572	48.502	1	90.72	N
ATOM	11960	CA	PHE	S	98	-79.402	88.838	49.23	1	89.73	C
ATOM	11961	CB	PHE	S	98	-80.695	89.495	49.711	1	88.6	C
ATOM	11962	CG	PHE	S	98	-81.608	89.933	48.616	1	88.22	C
ATOM	11963	CD1	PHE	S	98	-82.516	89.047	48.054	1	92.11	C
ATOM	11964	CE1	PHE	S	98	-83.388	89.462	47.058	1	97.7	C
ATOM	11965	CZ	PHE	S	98	-83.364	90.778	46.615	1	96.35	C

ATOM	11966	CE2	PHE	S	98	-82.47	91.672	47.178	1	93.65	C
ATOM	11967	CD2	PHE	S	98	-81.606	91.248	48.182	1	89.64	C
ATOM	11968	C	PHE	S	98	-78.505	88.646	50.465	1	91.87	C
ATOM	11969	O	PHE	S	98	-78.112	87.527	50.796	1	90.33	O
ATOM	11970	N	GLY	S	99	-78.188	89.755	51.135	1	94.62	N
ATOM	11971	CA	GLY	S	99	-77.411	89.742	52.367	1	99.57	C
ATOM	11972	C	GLY	S	99	-78.291	89.881	53.593	1	104.64	C
ATOM	11973	O	GLY	S	99	-79.475	90.249	53.485	1	100.11	O
ATOM	11974	N	ALA	S	100	-77.677	89.593	54.75	1	106.89	N
ATOM	11975	CA	ALA	S	100	-78.301	89.658	56.099	1	102.77	C
ATOM	11976	CB	ALA	S	100	-77.291	89.184	57.139	1	103.33	C
ATOM	11977	C	ALA	S	100	-78.858	91.035	56.528	1	95.86	C
ATOM	11978	O	ALA	S	100	-79.851	91.138	57.241	1	85.78	O
ATOM	11979	N	GLY	S	101	-78.185	92.09	56.109	1	104.22	N
ATOM	11980	CA	GLY	S	101	-78.592	93.441	56.428	1	112.49	C
ATOM	11981	C	GLY	S	101	-77.507	94.162	57.189	1	116.93	C
ATOM	11982	O	GLY	S	101	-76.728	93.544	57.907	1	128.04	O
ATOM	11983	N	THR	S	102	-77.445	95.471	56.974	1	116.1	N
ATOM	11984	CA	THR	S	102	-76.626	96.382	57.755	1	119.26	C
ATOM	11985	CB	THR	S	102	-75.299	96.706	57.044	1	121.72	C
ATOM	11986	OG1	THR	S	102	-75.55	96.881	55.647	1	134.22	O
ATOM	11987	CG2	THR	S	102	-74.249	95.596	57.235	1	115.49	C
ATOM	11988	C	THR	S	102	-77.464	97.652	57.945	1	117.27	C
ATOM	11989	O	THR	S	102	-78.02	98.18	56.984	1	98.19	O
ATOM	11990	N	LYS	S	103	-77.552	98.118	59.187	1	126.51	N
ATOM	11991	CA	LYS	S	103	-78.421	99.221	59.569	1	139.39	C
ATOM	11992	CB	LYS	S	103	-79.255	98.845	60.797	1	155	C
ATOM	11993	CG	LYS	S	103	-80.222	97.692	60.553	1	166.96	C
ATOM	11994	CD	LYS	S	103	-80.401	96.789	61.769	1	174.12	C
ATOM	11995	CE	LYS	S	103	-80.974	95.436	61.367	1	180.69	C
ATOM	11996	NZ	LYS	S	103	-81.115	94.492	62.509	1	186.07	N
ATOM	11997	C	LYS	S	103	-77.563	100.437	59.876	1	143.71	C
ATOM	11998	O	LYS	S	103	-76.462	100.302	60.422	1	127.95	O
ATOM	11999	N	LEU	S	104	-78.08	101.615	59.524	1	149.84	N
ATOM	12000	CA	LEU	S	104	-77.387	102.879	59.742	1	150.33	C
ATOM	12001	CB	LEU	S	104	-76.835	103.416	58.428	1	148.6	C
ATOM	12002	CG	LEU	S	104	-75.666	102.591	57.867	1	152.22	C
ATOM	12003	CD1	LEU	S	104	-75.328	103.009	56.439	1	154.18	C
ATOM	12004	CD2	LEU	S	104	-74.43	102.687	58.753	1	144.64	C
ATOM	12005	C	LEU	S	104	-78.274	103.909	60.425	1	164.81	C
ATOM	12006	O	LEU	S	104	-79.497	103.927	60.255	1	161.28	O
ATOM	12007	N	GLU	S	105	-77.609	104.782	61.178	1	181.42	N
ATOM	12008	CA	GLU	S	105	-78.232	105.591	62.225	1	187.32	C
ATOM	12009	CB	GLU	S	105	-78.517	104.696	63.438	1	191.19	C

ATOM	12010	CG	GLU	S	105	-77.305	103.894	63.922	1	188.55	C
ATOM	12011	CD	GLU	S	105	-77.557	102.4	64.019	1	181.62	C
ATOM	12012	OE1	GLU	S	105	-78.067	101.81	63.042	1	172.39	O
ATOM	12013	OE2	GLU	S	105	-77.224	101.81	65.07	1	177.14	O
ATOM	12014	C	GLU	S	105	-77.297	106.741	62.625	1	178.92	C
ATOM	12015	O	GLU	S	105	-76.073	106.604	62.511	1	173.07	O
ATOM	12016	N	LEU	S	106	-77.867	107.868	63.065	1	161.22	N
ATOM	12017	CA	LEU	S	106	-77.068	109.012	63.523	1	150.06	C
ATOM	12018	CB	LEU	S	106	-77.957	110.173	63.996	1	137.64	C
ATOM	12019	CG	LEU	S	106	-77.256	111.23	64.877	1	142.84	C
ATOM	12020	CD1	LEU	S	106	-76.387	112.148	64.032	1	143.67	C
ATOM	12021	CD2	LEU	S	106	-78.233	112.039	65.716	1	146.28	C
ATOM	12022	C	LEU	S	106	-76.155	108.568	64.67	1	161.92	C
ATOM	12023	O	LEU	S	106	-76.61	107.883	65.591	1	161.11	O
ATOM	12024	N	LYS	S	107	-74.879	108.959	64.605	1	170.39	N
ATOM	12025	CA	LYS	S	107	-73.934	108.739	65.706	1	162.85	C
ATOM	12026	CB	LYS	S	107	-72.478	108.633	65.208	1	157.54	C
ATOM	12027	CG	LYS	S	107	-71.433	108.293	66.274	1	151.01	C
ATOM	12028	CD	LYS	S	107	-71.564	106.866	66.789	1	154.4	C
ATOM	12029	CE	LYS	S	107	-70.805	106.644	68.09	1	154.62	C
ATOM	12030	NZ	LYS	S	107	-71.126	105.313	68.678	1	151.05	N
ATOM	12031	C	LYS	S	107	-74.077	109.867	66.727	1	164.08	C
ATOM	12032	O	LYS	S	107	-74.238	111.044	66.382	1	159.72	O
ATOM	12033	N	ARG	S	108	-74.009	109.469	67.989	1	165.11	N
ATOM	12034	CA	ARG	S	108	-74.207	110.348	69.127	1	162.64	C
ATOM	12035	CB	ARG	S	108	-75.689	110.366	69.494	1	161.79	C
ATOM	12036	CG	ARG	S	108	-76.124	111.391	70.536	1	160.44	C
ATOM	12037	CD	ARG	S	108	-77.491	111.01	71.103	1	162	C
ATOM	12038	NE	ARG	S	108	-77.571	111.096	72.56	1	154.44	N
ATOM	12039	CZ	ARG	S	108	-76.881	110.343	73.421	1	152.65	C
ATOM	12040	NH1	ARG	S	108	-75.991	109.438	73.006	1	144.63	N
ATOM	12041	NH2	ARG	S	108	-77.063	110.519	74.728	1	154.98	N
ATOM	12042	C	ARG	S	108	-73.347	109.756	70.242	1	157.03	C
ATOM	12043	O	ARG	S	108	-72.997	108.572	70.197	1	138.05	O
ATOM	12044	N	THR	S	109	-72.987	110.594	71.208	1	157.45	N
ATOM	12045	CA	THR	S	109	-71.98	110.262	72.219	1	155.21	C
ATOM	12046	CB	THR	S	109	-71.818	111.434	73.204	1	155.27	C
ATOM	12047	OG1	THR	S	109	-73.121	111.918	73.563	1	155.72	O
ATOM	12048	CG2	THR	S	109	-71.014	112.555	72.566	1	155.3	C
ATOM	12049	C	THR	S	109	-72.238	108.951	72.978	1	148.55	C
ATOM	12050	O	THR	S	109	-71.843	107.88	72.507	1	158.25	O
ATOM	12051	N	VAL	S	110	-72.881	109.039	74.139	1	131.54	N
ATOM	12052	CA	VAL	S	110	-73.059	107.907	75.061	1	127.1	C
ATOM	12053	CB	VAL	S	110	-71.837	107.739	76.037	1	124.08	C

ATOM	12054	CG1	VAL	S	110	-72.038	106.611	77.052	1	114.71	C
ATOM	12055	CG2	VAL	S	110	-70.534	107.49	75.272	1	122.66	C
ATOM	12056	C	VAL	S	110	-74.366	108.222	75.795	1	127.81	C
ATOM	12057	O	VAL	S	110	-74.94	109.286	75.573	1	115.36	O
ATOM	12058	N	ALA	S	111	-74.883	107.274	76.576	1	145.31	N
ATOM	12059	CA	ALA	S	111	-75.892	107.556	77.611	1	150.52	C
ATOM	12060	CB	ALA	S	111	-77.276	107.781	76.988	1	141.01	C
ATOM	12061	C	ALA	S	111	-75.953	106.443	78.676	1	155.03	C
ATOM	12062	O	ALA	S	111	-75.338	105.37	78.539	1	140.98	O
ATOM	12063	N	ALA	S	112	-76.669	106.743	79.756	1	156.52	N
ATOM	12064	CA	ALA	S	112	-77.178	105.728	80.665	1	150.86	C
ATOM	12065	CB	ALA	S	112	-77.061	106.194	82.106	1	150.3	C
ATOM	12066	C	ALA	S	112	-78.647	105.493	80.285	1	149.92	C
ATOM	12067	O	ALA	S	112	-79.21	106.253	79.482	1	148.32	O
ATOM	12068	N	PRO	S	113	-79.272	104.438	80.836	1	142.09	N
ATOM	12069	CA	PRO	S	113	-80.701	104.22	80.628	1	138.83	C
ATOM	12070	CB	PRO	S	113	-80.748	102.741	80.255	1	144.56	C
ATOM	12071	CG	PRO	S	113	-79.538	102.13	80.915	1	144.81	C
ATOM	12072	CD	PRO	S	113	-78.651	103.236	81.416	1	139.49	C
ATOM	12073	C	PRO	S	113	-81.537	104.471	81.88	1	136.86	C
ATOM	12074	O	PRO	S	113	-81.106	104.147	82.983	1	134.45	O
ATOM	12075	N	SER	S	114	-82.726	105.04	81.712	1	139.75	N
ATOM	12076	CA	SER	S	114	-83.648	105.199	82.836	1	150.33	C
ATOM	12077	CB	SER	S	114	-84.73	106.257	82.543	1	157.97	C
ATOM	12078	OG	SER	S	114	-84.441	107.02	81.379	1	161.87	O
ATOM	12079	C	SER	S	114	-84.259	103.814	83.128	1	152.66	C
ATOM	12080	O	SER	S	114	-85.109	103.331	82.376	1	162.28	O
ATOM	12081	N	VAL	S	115	-83.797	103.182	84.209	1	151.87	N
ATOM	12082	CA	VAL	S	115	-84.182	101.808	84.578	1	146.4	C
ATOM	12083	CB	VAL	S	115	-82.981	101.07	85.237	1	143.25	C
ATOM	12084	CG1	VAL	S	115	-83.319	99.621	85.569	1	140.45	C
ATOM	12085	CG2	VAL	S	115	-81.764	101.14	84.32	1	145.14	C
ATOM	12086	C	VAL	S	115	-85.432	101.796	85.495	1	146.62	C
ATOM	12087	O	VAL	S	115	-85.443	102.441	86.548	1	141.98	O
ATOM	12088	N	PHE	S	116	-86.476	101.066	85.08	1	146.77	N
ATOM	12089	CA	PHE	S	116	-87.75	100.953	85.824	1	137.62	C
ATOM	12090	CB	PHE	S	116	-88.834	101.783	85.138	1	129.93	C
ATOM	12091	CG	PHE	S	116	-88.447	103.208	84.901	1	132.58	C
ATOM	12092	CD1	PHE	S	116	-87.929	103.989	85.935	1	139.48	C
ATOM	12093	CE1	PHE	S	116	-87.561	105.306	85.718	1	144.05	C
ATOM	12094	CZ	PHE	S	116	-87.725	105.865	84.463	1	152.23	C
ATOM	12095	CE2	PHE	S	116	-88.244	105.096	83.426	1	149.37	C
ATOM	12096	CD2	PHE	S	116	-88.604	103.777	83.649	1	133.09	C
ATOM	12097	C	PHE	S	116	-88.235	99.501	85.928	1	135.16	C

ATOM	12098	O	PHE	S	116	-87.829	98.653	85.132	1	145.72	O
ATOM	12099	N	ILE	S	117	-89.106	99.234	86.907	1	127.37	N
ATOM	12100	CA	ILE	S	117	-89.788	97.925	87.069	1	115.82	C
ATOM	12101	CB	ILE	S	117	-89.154	97.065	88.186	1	105.16	C
ATOM	12102	CG1	ILE	S	117	-89.751	95.654	88.188	1	97.41	C
ATOM	12103	CD1	ILE	S	117	-88.94	94.669	88.986	1	101.68	C
ATOM	12104	CG2	ILE	S	117	-89.319	97.712	89.559	1	111.82	C
ATOM	12105	C	ILE	S	117	-91.279	98.132	87.342	1	111.11	C
ATOM	12106	O	ILE	S	117	-91.677	99.181	87.84	1	120.1	O
ATOM	12107	N	PHE	S	118	-92.107	97.159	86.967	1	106.38	N
ATOM	12108	CA	PHE	S	118	-93.562	97.302	87.067	1	111.68	C
ATOM	12109	CB	PHE	S	118	-94.129	97.835	85.741	1	109.49	C
ATOM	12110	CG	PHE	S	118	-93.482	99.097	85.244	1	110.68	C
ATOM	12111	CD1	PHE	S	118	-92.204	99.074	84.698	1	110.87	C
ATOM	12112	CE1	PHE	S	118	-91.607	100.227	84.232	1	115.24	C
ATOM	12113	CZ	PHE	S	118	-92.294	101.428	84.276	1	122.94	C
ATOM	12114	CE2	PHE	S	118	-93.579	101.465	84.798	1	122.85	C
ATOM	12115	CD2	PHE	S	118	-94.166	100.303	85.276	1	119.06	C
ATOM	12116	C	PHE	S	118	-94.259	95.97	87.402	1	114.91	C
ATOM	12117	O	PHE	S	118	-94.769	95.317	86.492	1	132.04	O
ATOM	12118	N	PRO	S	119	-94.295	95.556	88.696	1	108.62	N
ATOM	12119	CA	PRO	S	119	-95.039	94.352	89.108	1	103.03	C
ATOM	12120	CB	PRO	S	119	-95.059	94.442	90.633	1	106.02	C
ATOM	12121	CG	PRO	S	119	-94.389	95.726	90.974	1	113.4	C
ATOM	12122	CD	PRO	S	119	-93.5	96.055	89.821	1	112.58	C
ATOM	12123	C	PRO	S	119	-96.484	94.305	88.618	1	100.97	C
ATOM	12124	O	PRO	S	119	-97.097	95.366	88.458	1	101.47	O
ATOM	12125	N	PRO	S	120	-97.041	93.084	88.455	1	92.22	N
ATOM	12126	CA	PRO	S	120	-98.241	92.837	87.648	1	89.52	C
ATOM	12127	CB	PRO	S	120	-98.369	91.301	87.657	1	90.51	C
ATOM	12128	CG	PRO	S	120	-97.377	90.772	88.63	1	86.35	C
ATOM	12129	CD	PRO	S	120	-96.689	91.919	89.285	1	86.9	C
ATOM	12130	C	PRO	S	120	-99.54	93.482	88.158	1	89.07	C
ATOM	12131	O	PRO	S	120	-99.748	93.565	89.369	1	82.51	O
ATOM	12132	N	SER	S	121	-100.396	93.922	87.226	1	96.12	N
ATOM	12133	CA	SER	S	121	-101.732	94.439	87.557	1	103.08	C
ATOM	12134	CB	SER	S	121	-102.43	95.021	86.322	1	101.78	C
ATOM	12135	OG	SER	S	121	-103.734	95.503	86.633	1	98.89	O
ATOM	12136	C	SER	S	121	-102.593	93.33	88.169	1	113.46	C
ATOM	12137	O	SER	S	121	-102.532	92.174	87.737	1	109.67	O
ATOM	12138	N	ASP	S	122	-103.395	93.701	89.168	1	128.39	N
ATOM	12139	CA	ASP	S	122	-104.072	92.72	90.023	1	129.47	C
ATOM	12140	CB	ASP	S	122	-104.635	93.364	91.312	1	137.98	C
ATOM	12141	CG	ASP	S	122	-103.664	93.265	92.517	1	144.68	C

ATOM	12142	OD1	ASP	S	122	-102.425	93.34	92.339	1	135.7	O
ATOM	12143	OD2	ASP	S	122	-104.155	93.119	93.661	1	158.79	O
ATOM	12144	C	ASP	S	122	-105.146	91.949	89.263	1	127.66	C
ATOM	12145	O	ASP	S	122	-105.301	90.753	89.496	1	135.34	O
ATOM	12146	N	GLU	S	123	-105.863	92.605	88.351	1	124.37	N
ATOM	12147	CA	GLU	S	123	-106.807	91.883	87.474	1	128.53	C
ATOM	12148	CB	GLU	S	123	-107.608	92.839	86.586	1	124.58	C
ATOM	12149	CG	GLU	S	123	-106.794	93.676	85.617	1	126.11	C
ATOM	12150	CD	GLU	S	123	-107.662	94.656	84.855	1	133.6	C
ATOM	12151	OE1	GLU	S	123	-108.665	94.217	84.245	1	132.04	O
ATOM	12152	OE2	GLU	S	123	-107.342	95.865	84.867	1	140.14	O
ATOM	12153	C	GLU	S	123	-106.135	90.785	86.623	1	131.4	C
ATOM	12154	O	GLU	S	123	-106.694	89.693	86.46	1	120	O
ATOM	12155	N	GLN	S	124	-104.94	91.073	86.103	1	136.2	N
ATOM	12156	CA	GLN	S	124	-104.18	90.076	85.343	1	142.28	C
ATOM	12157	CB	GLN	S	124	-102.958	90.685	84.631	1	147.76	C
ATOM	12158	CG	GLN	S	124	-102.396	89.756	83.542	1	151.35	C
ATOM	12159	CD	GLN	S	124	-100.881	89.688	83.455	1	144.05	C
ATOM	12160	OE1	GLN	S	124	-100.167	90.531	83.987	1	126.99	O
ATOM	12161	NE2	GLN	S	124	-100.382	88.665	82.772	1	149.79	N
ATOM	12162	C	GLN	S	124	-103.721	88.923	86.235	1	137.18	C
ATOM	12163	O	GLN	S	124	-103.726	87.765	85.807	1	146.28	O
ATOM	12164	N	LEU	S	125	-103.306	89.234	87.46	1	125.68	N
ATOM	12165	CA	LEU	S	125	-102.913	88.185	88.392	1	127.52	C
ATOM	12166	CB	LEU	S	125	-102.42	88.758	89.72	1	125.8	C
ATOM	12167	CG	LEU	S	125	-100.966	89.245	89.661	1	125.45	C
ATOM	12168	CD1	LEU	S	125	-100.797	90.598	90.335	1	131.67	C
ATOM	12169	CD2	LEU	S	125	-100.017	88.217	90.264	1	125.12	C
ATOM	12170	C	LEU	S	125	-104.076	87.23	88.588	1	131.32	C
ATOM	12171	O	LEU	S	125	-103.952	86.054	88.294	1	139.59	O
ATOM	12172	N	LYS	S	126	-105.233	87.748	88.977	1	133.91	N
ATOM	12173	CA	LYS	S	126	-106.4	86.888	89.184	1	140.57	C
ATOM	12174	CB	LYS	S	126	-107.572	87.661	89.837	1	148.61	C
ATOM	12175	CG	LYS	S	126	-107.157	88.503	91.054	1	153.1	C
ATOM	12176	CD	LYS	S	126	-108.172	88.581	92.194	1	155.45	C
ATOM	12177	CE	LYS	S	126	-107.65	89.496	93.308	1	149	C
ATOM	12178	NZ	LYS	S	126	-108.407	89.421	94.592	1	138.94	N
ATOM	12179	C	LYS	S	126	-106.791	86.182	87.863	1	139.72	C
ATOM	12180	O	LYS	S	126	-107.312	85.065	87.891	1	140.12	O
ATOM	12181	N	SER	S	127	-106.479	86.804	86.719	1	138.47	N
ATOM	12182	CA	SER	S	127	-106.646	86.179	85.386	1	138.18	C
ATOM	12183	CB	SER	S	127	-106.461	87.234	84.278	1	132.47	C
ATOM	12184	OG	SER	S	127	-106.756	86.706	82.998	1	133.4	O
ATOM	12185	C	SER	S	127	-105.759	84.948	85.073	1	136.3	C

ATOM	12186	O	SER	S	127	-105.841	84.403	83.968	1	138.68	O
ATOM	12187	N	GLY	S	128	-104.91	84.528	86.012	1	132.03	N
ATOM	12188	CA	GLY	S	128	-104.143	83.29	85.878	1	123.59	C
ATOM	12189	C	GLY	S	128	-102.713	83.453	85.389	1	121.54	C
ATOM	12190	O	GLY	S	128	-101.876	82.595	85.693	1	106.17	O
ATOM	12191	N	THR	S	129	-102.409	84.554	84.685	1	123.93	N
ATOM	12192	CA	THR	S	129	-101.173	84.653	83.881	1	126.26	C
ATOM	12193	CB	THR	S	129	-101.45	85.142	82.449	1	129.33	C
ATOM	12194	OG1	THR	S	129	-101.949	86.481	82.486	1	121.84	O
ATOM	12195	CG2	THR	S	129	-102.444	84.216	81.751	1	136.96	C
ATOM	12196	C	THR	S	129	-100.055	85.52	84.441	1	116.27	C
ATOM	12197	O	THR	S	129	-98.908	85.11	84.36	1	115.28	O
ATOM	12198	N	ALA	S	130	-100.365	86.72	84.931	1	102.75	N
ATOM	12199	CA	ALA	S	130	-99.379	87.567	85.644	1	113.04	C
ATOM	12200	CB	ALA	S	130	-99.164	87.003	87.047	1	124.09	C
ATOM	12201	C	ALA	S	130	-97.991	87.822	84.981	1	109.34	C
ATOM	12202	O	ALA	S	130	-97.095	86.966	85.044	1	95.84	O
ATOM	12203	N	SER	S	131	-97.786	89.028	84.446	1	108.08	N
ATOM	12204	CA	SER	S	131	-96.527	89.395	83.771	1	109.91	C
ATOM	12205	CB	SER	S	131	-96.79	89.665	82.28	1	110.26	C
ATOM	12206	OG	SER	S	131	-97.583	90.825	82.047	1	102.98	O
ATOM	12207	C	SER	S	131	-95.798	90.59	84.409	1	107.61	C
ATOM	12208	O	SER	S	131	-96.413	91.622	84.67	1	123.76	O
ATOM	12209	N	VAL	S	132	-94.487	90.457	84.619	1	97.79	N
ATOM	12210	CA	VAL	S	132	-93.677	91.507	85.259	1	96.98	C
ATOM	12211	CB	VAL	S	132	-92.357	90.945	85.845	1	96.55	C
ATOM	12212	CG1	VAL	S	132	-91.591	92.038	86.579	1	97.02	C
ATOM	12213	CG2	VAL	S	132	-92.65	89.784	86.794	1	98.54	C
ATOM	12214	C	VAL	S	132	-93.47	92.723	84.316	1	99.17	C
ATOM	12215	O	VAL	S	132	-94.434	93.454	84.108	1	108.04	O
ATOM	12216	N	VAL	S	133	-92.27	92.907	83.737	1	95.94	N
ATOM	12217	CA	VAL	S	133	-91.806	94.122	82.979	1	95.71	C
ATOM	12218	CB	VAL	S	133	-92.831	95.282	82.76	1	84.81	C
ATOM	12219	CG1	VAL	S	133	-92.14	96.536	82.24	1	75.58	C
ATOM	12220	CG2	VAL	S	133	-93.915	94.889	81.76	1	94.38	C
ATOM	12221	C	VAL	S	133	-90.576	94.734	83.641	1	105.82	C
ATOM	12222	O	VAL	S	133	-90.579	94.998	84.844	1	124.1	O
ATOM	12223	N	CYS	S	134	-89.519	94.92	82.855	1	106.93	N
ATOM	12224	CA	CYS	S	134	-88.444	95.837	83.191	1	105.97	C
ATOM	12225	CB	CYS	S	134	-87.105	95.124	83.29	1	113.04	C
ATOM	12226	SG	CYS	S	134	-85.832	96.209	83.966	1	138.88	S
ATOM	12227	C	CYS	S	134	-88.427	96.872	82.081	1	103.21	C
ATOM	12228	O	CYS	S	134	-89.223	96.788	81.146	1	99.03	O
ATOM	12229	N	LEU	S	135	-87.542	97.856	82.175	1	103.79	N

ATOM	12230	CA	LEU	S	135	-87.509	98.927	81.175	1	107.54	C
ATOM	12231	CB	LEU	S	135	-88.682	99.885	81.401	1	101.19	C
ATOM	12232	CG	LEU	S	135	-88.773	101.204	80.641	1	99.95	C
ATOM	12233	CD1	LEU	S	135	-88.507	101.036	79.164	1	102.91	C
ATOM	12234	CD2	LEU	S	135	-90.164	101.782	80.83	1	102.65	C
ATOM	12235	C	LEU	S	135	-86.183	99.677	81.196	1	113.46	C
ATOM	12236	O	LEU	S	135	-85.739	100.135	82.241	1	117.88	O
ATOM	12237	N	LEU	S	136	-85.545	99.753	80.031	1	118.84	N
ATOM	12238	CA	LEU	S	136	-84.391	100.602	79.813	1	121.3	C
ATOM	12239	CB	LEU	S	136	-83.241	99.83	79.135	1	116.22	C
ATOM	12240	CG	LEU	S	136	-82.593	98.593	79.806	1	112.72	C
ATOM	12241	CD1	LEU	S	136	-82.357	98.778	81.296	1	107.88	C
ATOM	12242	CD2	LEU	S	136	-83.392	97.32	79.569	1	116.84	C
ATOM	12243	C	LEU	S	136	-84.935	101.717	78.919	1	129.33	C
ATOM	12244	O	LEU	S	136	-85.261	101.475	77.758	1	136.96	O
ATOM	12245	N	ASN	S	137	-85.079	102.917	79.485	1	138.67	N
ATOM	12246	CA	ASN	S	137	-85.671	104.066	78.795	1	136.21	C
ATOM	12247	CB	ASN	S	137	-86.702	104.736	79.711	1	130.65	C
ATOM	12248	CG	ASN	S	137	-87.374	105.943	79.073	1	133.91	C
ATOM	12249	OD1	ASN	S	137	-87.443	107.016	79.678	1	135.58	O
ATOM	12250	ND2	ASN	S	137	-87.868	105.777	77.843	1	130.46	N
ATOM	12251	C	ASN	S	137	-84.61	105.081	78.346	1	147.13	C
ATOM	12252	O	ASN	S	137	-83.574	105.24	79.007	1	148.26	O
ATOM	12253	N	ASN	S	138	-84.879	105.731	77.207	1	149.74	N
ATOM	12254	CA	ASN	S	138	-84.113	106.875	76.694	1	140.14	C
ATOM	12255	CB	ASN	S	138	-84.64	108.2	77.28	1	137.3	C
ATOM	12256	CG	ASN	S	138	-85.95	108.642	76.644	1	145.09	C
ATOM	12257	OD1	ASN	S	138	-87.032	108.199	77.038	1	147.2	O
ATOM	12258	ND2	ASN	S	138	-85.86	109.537	75.663	1	144.74	N
ATOM	12259	C	ASN	S	138	-82.605	106.753	76.882	1	134.41	C
ATOM	12260	O	ASN	S	138	-82.025	107.386	77.765	1	131.09	O
ATOM	12261	N	PHE	S	139	-81.987	105.902	76.07	1	140.37	N
ATOM	12262	CA	PHE	S	139	-80.539	105.692	76.132	1	153.8	C
ATOM	12263	CB	PHE	S	139	-80.202	104.511	77.061	1	156.93	C
ATOM	12264	CG	PHE	S	139	-80.511	103.153	76.489	1	150.24	C
ATOM	12265	CD1	PHE	S	139	-81.722	102.521	76.765	1	146.38	C
ATOM	12266	CE1	PHE	S	139	-82.004	101.263	76.25	1	133.87	C
ATOM	12267	CZ	PHE	S	139	-81.07	100.621	75.464	1	131.62	C
ATOM	12268	CE2	PHE	S	139	-79.856	101.232	75.196	1	140.83	C
ATOM	12269	CD2	PHE	S	139	-79.579	102.487	75.713	1	140.27	C
ATOM	12270	C	PHE	S	139	-79.913	105.522	74.753	1	159.55	C
ATOM	12271	O	PHE	S	139	-80.611	105.531	73.733	1	152.36	O
ATOM	12272	N	TYR	S	140	-78.587	105.393	74.75	1	168.95	N
ATOM	12273	CA	TYR	S	140	-77.774	105.287	73.536	1	184.98	C

ATOM	12274	CB	TYR	S	140	-77.864	106.597	72.718	1	189.56	C
ATOM	12275	CG	TYR	S	140	-77.371	106.496	71.29	1	190.92	C
ATOM	12276	CD1	TYR	S	140	-76.029	106.697	70.976	1	189.41	C
ATOM	12277	CE1	TYR	S	140	-75.574	106.604	69.666	1	193.33	C
ATOM	12278	CZ	TYR	S	140	-76.467	106.311	68.648	1	189.97	C
ATOM	12279	OH	TYR	S	140	-76.024	106.214	67.351	1	177.18	O
ATOM	12280	CE2	TYR	S	140	-77.805	106.119	68.932	1	194.8	C
ATOM	12281	CD2	TYR	S	140	-78.252	106.214	70.246	1	197.11	C
ATOM	12282	C	TYR	S	140	-76.32	105.062	73.995	1	182.14	C
ATOM	12283	O	TYR	S	140	-76.008	105.411	75.131	1	189.89	O
ATOM	12284	N	PRO	S	141	-75.447	104.411	73.219	1	178.15	N
ATOM	12285	CA	PRO	S	141	-75.775	103.361	72.272	1	171.38	C
ATOM	12286	CB	PRO	S	141	-74.787	103.589	71.123	1	181.56	C
ATOM	12287	CG	PRO	S	141	-73.667	104.394	71.692	1	187.3	C
ATOM	12288	CD	PRO	S	141	-74.056	104.871	73.062	1	185.38	C
ATOM	12289	C	PRO	S	141	-75.465	102.033	72.959	1	156.31	C
ATOM	12290	O	PRO	S	141	-74.553	101.993	73.78	1	141.65	O
ATOM	12291	N	ARG	S	142	-76.176	100.949	72.667	1	150.46	N
ATOM	12292	CA	ARG	S	142	-77.304	100.893	71.726	1	149.42	C
ATOM	12293	CB	ARG	S	142	-76.861	101.024	70.264	1	159.85	C
ATOM	12294	CG	ARG	S	142	-75.687	100.152	69.836	1	161.42	C
ATOM	12295	CD	ARG	S	142	-75.019	100.726	68.596	1	164.6	C
ATOM	12296	NE	ARG	S	142	-74.346	99.709	67.793	1	167.52	N
ATOM	12297	CZ	ARG	S	142	-73.757	99.937	66.617	1	174.47	C
ATOM	12298	NH1	ARG	S	142	-73.734	101.16	66.079	1	179.72	N
ATOM	12299	NH2	ARG	S	142	-73.176	98.93	65.969	1	175.68	N
ATOM	12300	C	ARG	S	142	-78.068	99.602	71.933	1	144.47	C
ATOM	12301	O	ARG	S	142	-79.29	99.606	71.928	1	141.86	O
ATOM	12302	N	GLU	S	143	-77.337	98.498	72.077	1	143.78	N
ATOM	12303	CA	GLU	S	143	-77.848	97.31	72.744	1	140.2	C
ATOM	12304	CB	GLU	S	143	-77.411	96.019	72.019	1	143.78	C
ATOM	12305	CG	GLU	S	143	-76.148	95.316	72.527	1	142.22	C
ATOM	12306	CD	GLU	S	143	-74.91	96.199	72.539	1	136.92	C
ATOM	12307	OE1	GLU	S	143	-74.763	97.062	71.64	1	123.13	O
ATOM	12308	OE2	GLU	S	143	-74.089	96.03	73.466	1	144.74	O
ATOM	12309	C	GLU	S	143	-77.372	97.354	74.199	1	132.45	C
ATOM	12310	O	GLU	S	143	-76.318	97.921	74.51	1	113.53	O
ATOM	12311	N	ALA	S	144	-78.17	96.748	75.072	1	140.09	N
ATOM	12312	CA	ALA	S	144	-77.86	96.614	76.491	1	144.92	C
ATOM	12313	CB	ALA	S	144	-78.922	97.339	77.315	1	147.99	C
ATOM	12314	C	ALA	S	144	-77.804	95.125	76.858	1	140.7	C
ATOM	12315	O	ALA	S	144	-77.657	94.26	75.987	1	131.58	O
ATOM	12316	N	LYS	S	145	-77.876	94.84	78.154	1	138.49	N
ATOM	12317	CA	LYS	S	145	-78.172	93.504	78.627	1	138.21	C

ATOM	12318	CB	LYS	S	145	-76.895	92.761	79.037	1	135.57	C
ATOM	12319	CG	LYS	S	145	-76.966	91.27	78.741	1	141.78	C
ATOM	12320	CD	LYS	S	145	-76.17	90.413	79.712	1	144.44	C
ATOM	12321	CE	LYS	S	145	-76.45	88.93	79.482	1	151.18	C
ATOM	12322	NZ	LYS	S	145	-76.331	88.122	80.728	1	156.16	N
ATOM	12323	C	LYS	S	145	-79.134	93.613	79.8	1	148.01	C
ATOM	12324	O	LYS	S	145	-79.129	94.608	80.533	1	161.13	O
ATOM	12325	N	VAL	S	146	-79.985	92.601	79.939	1	150.98	N
ATOM	12326	CA	VAL	S	146	-80.891	92.463	81.078	1	140.81	C
ATOM	12327	CB	VAL	S	146	-82.314	92.991	80.778	1	146.48	C
ATOM	12328	CG1	VAL	S	146	-83.099	93.175	82.07	1	144.8	C
ATOM	12329	CG2	VAL	S	146	-82.292	94.283	79.974	1	150.05	C
ATOM	12330	C	VAL	S	146	-81.063	90.984	81.356	1	137.15	C
ATOM	12331	O	VAL	S	146	-81.138	90.184	80.417	1	149.87	O
ATOM	12332	N	GLN	S	147	-81.142	90.61	82.623	1	129.85	N
ATOM	12333	CA	GLN	S	147	-81.805	89.347	82.948	1	142.18	C
ATOM	12334	CB	GLN	S	147	-80.932	88.101	82.666	1	146.01	C
ATOM	12335	CG	GLN	S	147	-80.459	87.238	83.845	1	143.19	C
ATOM	12336	CD	GLN	S	147	-79.044	87.543	84.276	1	135.46	C
ATOM	12337	OE1	GLN	S	147	-78.27	86.633	84.56	1	131.39	O
ATOM	12338	NE2	GLN	S	147	-78.691	88.823	84.309	1	133.37	N
ATOM	12339	C	GLN	S	147	-82.366	89.356	84.35	1	142.43	C
ATOM	12340	O	GLN	S	147	-81.815	89.976	85.263	1	155.59	O
ATOM	12341	N	TRP	S	148	-83.453	88.617	84.499	1	125.37	N
ATOM	12342	CA	TRP	S	148	-84.286	88.701	85.67	1	112.72	C
ATOM	12343	CB	TRP	S	148	-85.66	88.201	85.317	1	109.17	C
ATOM	12344	CG	TRP	S	148	-86.333	88.992	84.311	1	107.56	C
ATOM	12345	CD1	TRP	S	148	-86.358	88.781	82.969	1	117.37	C
ATOM	12346	NE1	TRP	S	148	-87.142	89.73	82.355	1	122.25	N
ATOM	12347	CE2	TRP	S	148	-87.636	90.568	83.319	1	121.5	C
ATOM	12348	CD2	TRP	S	148	-87.141	90.118	84.561	1	115.47	C
ATOM	12349	CE3	TRP	S	148	-87.501	90.803	85.723	1	120.25	C
ATOM	12350	CZ3	TRP	S	148	-88.326	91.897	85.614	1	120.03	C
ATOM	12351	CH2	TRP	S	148	-88.803	92.315	84.377	1	114.57	C
ATOM	12352	CZ2	TRP	S	148	-88.476	91.674	83.214	1	120.42	C
ATOM	12353	C	TRP	S	148	-83.759	87.851	86.809	1	115.72	C
ATOM	12354	O	TRP	S	148	-83.014	86.884	86.586	1	115.09	O
ATOM	12355	N	LYS	S	149	-84.166	88.219	88.026	1	113.98	N
ATOM	12356	CA	LYS	S	149	-84.033	87.358	89.203	1	119.31	C
ATOM	12357	CB	LYS	S	149	-82.967	87.889	90.16	1	118.69	C
ATOM	12358	CG	LYS	S	149	-81.564	87.465	89.767	1	119.62	C
ATOM	12359	CD	LYS	S	149	-80.498	88.175	90.582	1	115.58	C
ATOM	12360	CE	LYS	S	149	-79.171	88.212	89.849	1	115.68	C
ATOM	12361	NZ	LYS	S	149	-78.491	89.497	90.125	1	122.52	N

ATOM	12362	C	LYS	S	149	-85.371	87.16	89.926	1	133.5	C
ATOM	12363	O	LYS	S	149	-86.352	87.856	89.646	1	147.41	O
ATOM	12364	N	VAL	S	150	-85.395	86.177	90.829	1	139.89	N
ATOM	12365	CA	VAL	S	150	-86.592	85.777	91.607	1	133.36	C
ATOM	12366	CB	VAL	S	150	-87.468	84.757	90.809	1	125.51	C
ATOM	12367	CG1	VAL	S	150	-88.472	84.031	91.702	1	125.64	C
ATOM	12368	CG2	VAL	S	150	-88.18	85.442	89.641	1	119.5	C
ATOM	12369	C	VAL	S	150	-86.111	85.204	92.961	1	126.47	C
ATOM	12370	O	VAL	S	150	-85.774	84.02	93.061	1	116.3	O
ATOM	12371	N	ASP	S	151	-86.08	86.044	93.995	1	126.7	N
ATOM	12372	CA	ASP	S	151	-85.334	85.738	95.225	1	137.44	C
ATOM	12373	CB	ASP	S	151	-85.967	84.564	96.024	1	145.92	C
ATOM	12374	CG	ASP	S	151	-87.033	85.014	97.023	1	142.77	C
ATOM	12375	OD1	ASP	S	151	-86.742	85.912	97.846	1	143.86	O
ATOM	12376	OD2	ASP	S	151	-88.142	84.428	97.009	1	130.72	O
ATOM	12377	C	ASP	S	151	-83.86	85.46	94.861	1	138.76	C
ATOM	12378	O	ASP	S	151	-83.276	84.441	95.251	1	124.29	O
ATOM	12379	N	ASN	S	152	-83.29	86.369	94.072	1	150.96	N
ATOM	12380	CA	ASN	S	152	-81.864	86.356	93.727	1	165.81	C
ATOM	12381	CB	ASN	S	152	-81.046	86.684	94.993	1	160.11	C
ATOM	12382	CG	ASN	S	152	-79.713	87.345	94.686	1	159.79	C
ATOM	12383	OD1	ASN	S	152	-79.615	88.208	93.81	1	149.04	O
ATOM	12384	ND2	ASN	S	152	-78.679	86.948	95.42	1	164.4	N
ATOM	12385	C	ASN	S	152	-81.306	85.083	93.01	1	178.13	C
ATOM	12386	O	ASN	S	152	-80.113	84.777	93.129	1	197.76	O
ATOM	12387	N	ALA	S	153	-82.164	84.356	92.278	1	169.64	N
ATOM	12388	CA	ALA	S	153	-81.747	83.295	91.329	1	150.73	C
ATOM	12389	CB	ALA	S	153	-82.393	81.964	91.679	1	137.75	C
ATOM	12390	C	ALA	S	153	-82.156	83.744	89.929	1	153.18	C
ATOM	12391	O	ALA	S	153	-83.065	84.554	89.804	1	152.91	O
ATOM	12392	N	LEU	S	154	-81.537	83.195	88.882	1	152.21	N
ATOM	12393	CA	LEU	S	154	-81.465	83.88	87.569	1	144.46	C
ATOM	12394	CB	LEU	S	154	-80.078	83.65	86.959	1	151.2	C
ATOM	12395	CG	LEU	S	154	-78.921	83.99	87.935	1	154.25	C
ATOM	12396	CD1	LEU	S	154	-78.4	82.777	88.71	1	145.96	C
ATOM	12397	CD2	LEU	S	154	-77.778	84.679	87.196	1	160.78	C
ATOM	12398	C	LEU	S	154	-82.654	83.561	86.617	1	132.35	C
ATOM	12399	O	LEU	S	154	-83.781	83.481	87.095	1	122.4	O
ATOM	12400	N	GLN	S	155	-82.449	83.412	85.304	1	134.51	N
ATOM	12401	CA	GLN	S	155	-83.581	83.172	84.375	1	142.64	C
ATOM	12402	CB	GLN	S	155	-84.268	84.506	84.022	1	148.36	C
ATOM	12403	CG	GLN	S	155	-85.786	84.428	83.832	1	149.47	C
ATOM	12404	CD	GLN	S	155	-86.553	84.094	85.111	1	144.44	C
ATOM	12405	OE1	GLN	S	155	-87.627	83.494	85.066	1	129.7	O

ATOM	12406	NE2	GLN	S	155	-86.009	84.489	86.254	1	141.88	N
ATOM	12407	C	GLN	S	155	-83.174	82.458	83.081	1	138.79	C
ATOM	12408	O	GLN	S	155	-81.996	82.431	82.725	1	141.45	O
ATOM	12409	N	SER	S	156	-84.16	81.877	82.391	1	133.49	N
ATOM	12410	CA	SER	S	156	-83.954	81.275	81.07	1	128.33	C
ATOM	12411	CB	SER	S	156	-83.812	79.752	81.193	1	130.11	C
ATOM	12412	OG	SER	S	156	-82.761	79.406	82.075	1	127.52	O
ATOM	12413	C	SER	S	156	-85.063	81.656	80.07	1	126.99	C
ATOM	12414	O	SER	S	156	-84.891	82.61	79.304	1	136.43	O
ATOM	12415	N	GLY	S	157	-86.197	80.948	80.098	1	114.18	N
ATOM	12416	CA	GLY	S	157	-87.152	80.958	78.982	1	112.17	C
ATOM	12417	C	GLY	S	157	-88.1	82.136	78.999	1	113.64	C
ATOM	12418	O	GLY	S	157	-88.251	82.858	78.013	1	107.23	O
ATOM	12419	N	ASN	S	158	-88.772	82.299	80.129	1	123.88	N
ATOM	12420	CA	ASN	S	158	-89.599	83.482	80.377	1	118.83	C
ATOM	12421	CB	ASN	S	158	-90.53	83.307	81.594	1	127.2	C
ATOM	12422	CG	ASN	S	158	-89.921	82.454	82.709	1	128.31	C
ATOM	12423	OD1	ASN	S	158	-88.7	82.419	82.882	1	124.98	O
ATOM	12424	ND2	ASN	S	158	-90.774	81.73	83.443	1	124.12	N
ATOM	12425	C	ASN	S	158	-88.68	84.682	80.53	1	109.42	C
ATOM	12426	O	ASN	S	158	-87.757	84.664	81.346	1	96.88	O
ATOM	12427	N	SER	S	159	-88.971	85.713	79.739	1	109.35	N
ATOM	12428	CA	SER	S	159	-88.036	86.784	79.331	1	111.72	C
ATOM	12429	CB	SER	S	159	-86.561	86.345	79.297	1	115.78	C
ATOM	12430	OG	SER	S	159	-85.986	86.23	80.592	1	118.91	O
ATOM	12431	C	SER	S	159	-88.486	87.068	77.916	1	107.27	C
ATOM	12432	O	SER	S	159	-88.768	86.129	77.188	1	103.56	O
ATOM	12433	N	GLN	S	160	-88.566	88.335	77.522	1	110.28	N
ATOM	12434	CA	GLN	S	160	-89.206	88.705	76.249	1	113.21	C
ATOM	12435	CB	GLN	S	160	-90.725	88.426	76.328	1	125.61	C
ATOM	12436	CG	GLN	S	160	-91.207	87.238	75.511	1	139.07	C
ATOM	12437	CD	GLN	S	160	-91.315	87.551	74.029	1	147.44	C
ATOM	12438	OE1	GLN	S	160	-90.442	88.205	73.453	1	159.8	O
ATOM	12439	NE2	GLN	S	160	-92.389	87.081	73.399	1	147.9	N
ATOM	12440	C	GLN	S	160	-88.957	90.169	75.859	1	113.17	C
ATOM	12441	O	GLN	S	160	-89.78	91.041	76.15	1	124.77	O
ATOM	12442	N	GLU	S	161	-87.851	90.428	75.159	1	112.11	N
ATOM	12443	CA	GLU	S	161	-87.378	91.816	74.913	1	109.12	C
ATOM	12444	CB	GLU	S	161	-85.877	91.876	74.55	1	113.73	C
ATOM	12445	CG	GLU	S	161	-84.961	90.806	75.143	1	122.18	C
ATOM	12446	CD	GLU	S	161	-85.019	90.72	76.654	1	124.97	C
ATOM	12447	OE1	GLU	S	161	-84.384	91.58	77.301	1	130.35	O
ATOM	12448	OE2	GLU	S	161	-85.671	89.786	77.187	1	123.33	O
ATOM	12449	C	GLU	S	161	-88.18	92.512	73.801	1	102.61	C

ATOM	12450	O	GLU	S	161	-89.02	91.894	73.133	1	100.19	O
ATOM	12451	N	SER	S	162	-87.917	93.806	73.632	1	93.63	N
ATOM	12452	CA	SER	S	162	-88.432	94.593	72.499	1	98.81	C
ATOM	12453	CB	SER	S	162	-89.954	94.783	72.578	1	101.69	C
ATOM	12454	OG	SER	S	162	-90.5	95.136	71.313	1	99.28	O
ATOM	12455	C	SER	S	162	-87.756	95.963	72.514	1	106.24	C
ATOM	12456	O	SER	S	162	-87.45	96.469	73.59	1	113.12	O
ATOM	12457	N	VAL	S	163	-87.535	96.554	71.335	1	109.5	N
ATOM	12458	CA	VAL	S	163	-86.861	97.86	71.197	1	109.61	C
ATOM	12459	CB	VAL	S	163	-85.419	97.67	70.674	1	105.32	C
ATOM	12460	CG1	VAL	S	163	-84.746	99	70.342	1	106.1	C
ATOM	12461	CG2	VAL	S	163	-84.588	96.908	71.698	1	103.64	C
ATOM	12462	C	VAL	S	163	-87.655	98.786	70.266	1	121.77	C
ATOM	12463	O	VAL	S	163	-88.42	98.308	69.431	1	128.19	O
ATOM	12464	N	THR	S	164	-87.483	100.1	70.431	1	133.93	N
ATOM	12465	CA	THR	S	164	-88.041	101.105	69.499	1	149.34	C
ATOM	12466	CB	THR	S	164	-88.657	102.296	70.279	1	152.04	C
ATOM	12467	OG1	THR	S	164	-89.207	103.248	69.359	1	156.1	O
ATOM	12468	CG2	THR	S	164	-87.631	102.979	71.182	1	151.28	C
ATOM	12469	C	THR	S	164	-87.011	101.509	68.389	1	154.53	C
ATOM	12470	O	THR	S	164	-86.526	100.629	67.671	1	146.61	O
ATOM	12471	N	GLU	S	165	-86.707	102.801	68.209	1	169	N
ATOM	12472	CA	GLU	S	165	-85.673	103.235	67.249	1	175.97	C
ATOM	12473	CB	GLU	S	165	-86.285	103.502	65.865	1	180.78	C
ATOM	12474	CG	GLU	S	165	-87.485	104.449	65.847	1	179.24	C
ATOM	12475	CD	GLU	S	165	-88.798	103.791	66.237	1	171.9	C
ATOM	12476	OE1	GLU	S	165	-88.902	102.546	66.17	1	165.46	O
ATOM	12477	OE2	GLU	S	165	-89.734	104.531	66.608	1	162.6	O
ATOM	12478	C	GLU	S	165	-84.847	104.458	67.704	1	175.81	C
ATOM	12479	O	GLU	S	165	-85.384	105.465	68.179	1	163.42	O
ATOM	12480	N	GLN	S	166	-83.533	104.359	67.52	1	179.1	N
ATOM	12481	CA	GLN	S	166	-82.616	105.445	67.859	1	197.22	C
ATOM	12482	CB	GLN	S	166	-81.178	104.934	68.013	1	204.16	C
ATOM	12483	CG	GLN	S	166	-80.506	104.395	66.755	1	196.45	C
ATOM	12484	CD	GLN	S	166	-79.576	103.228	67.055	1	195.52	C
ATOM	12485	OE1	GLN	S	166	-78.77	103.284	67.985	1	192.47	O
ATOM	12486	NE2	GLN	S	166	-79.695	102.159	66.277	1	201.3	N
ATOM	12487	C	GLN	S	166	-82.668	106.593	66.853	1	216.08	C
ATOM	12488	O	GLN	S	166	-82.237	107.702	67.172	1	238.35	O
ATOM	12489	N	ASP	S	167	-83.198	106.34	65.652	1	224.06	N
ATOM	12490	CA	ASP	S	167	-83.486	107.41	64.691	1	218.13	C
ATOM	12491	CB	ASP	S	167	-83.447	106.88	63.245	1	202.37	C
ATOM	12492	CG	ASP	S	167	-82.087	106.274	62.871	1	192.88	C
ATOM	12493	OD1	ASP	S	167	-81.188	106.214	63.742	1	162.95	O

ATOM	12494	OD2	ASP	S	167	-81.919	105.852	61.704	1	187.99	O
ATOM	12495	C	ASP	S	167	-84.846	108.019	65.06	1	217.46	C
ATOM	12496	O	ASP	S	167	-85.846	107.838	64.352	1	223.73	O
ATOM	12497	N	SER	S	168	-84.854	108.738	66.185	1	202.42	N
ATOM	12498	CA	SER	S	168	-86.061	109.294	66.781	1	185.33	C
ATOM	12499	CB	SER	S	168	-86.295	108.693	68.18	1	177.11	C
ATOM	12500	OG	SER	S	168	-85.105	108.675	68.959	1	150.34	O
ATOM	12501	C	SER	S	168	-85.934	110.812	66.843	1	186.18	C
ATOM	12502	O	SER	S	168	-86.406	111.512	65.936	1	162.54	O
ATOM	12503	N	LYS	S	169	-85.269	111.3	67.896	1	192.31	N
ATOM	12504	CA	LYS	S	169	-85.182	112.727	68.209	1	189.04	C
ATOM	12505	CB	LYS	S	169	-86.082	113.074	69.404	1	180.33	C
ATOM	12506	CG	LYS	S	169	-87.575	113.029	69.105	1	176.46	C
ATOM	12507	CD	LYS	S	169	-88.379	112.425	70.252	1	170.22	C
ATOM	12508	CE	LYS	S	169	-88.294	113.257	71.523	1	166.02	C
ATOM	12509	NZ	LYS	S	169	-89.197	112.721	72.577	1	161.67	N
ATOM	12510	C	LYS	S	169	-83.738	113.107	68.511	1	191.93	C
ATOM	12511	O	LYS	S	169	-83.115	113.818	67.721	1	193.89	O
ATOM	12512	N	ASP	S	170	-83.21	112.629	69.643	1	196.08	N
ATOM	12513	CA	ASP	S	170	-81.864	113.012	70.093	1	204.43	C
ATOM	12514	CB	ASP	S	170	-81.913	114.446	70.671	1	213.38	C
ATOM	12515	CG	ASP	S	170	-82.954	114.613	71.791	1	218.58	C
ATOM	12516	OD1	ASP	S	170	-84.001	113.921	71.77	1	215.84	O
ATOM	12517	OD2	ASP	S	170	-82.722	115.452	72.69	1	210.52	O
ATOM	12518	C	ASP	S	170	-81.178	112.047	71.096	1	197.3	C
ATOM	12519	O	ASP	S	170	-80.828	112.451	72.208	1	192.49	O
ATOM	12520	N	SER	S	171	-80.957	110.78	70.744	1	190.28	N
ATOM	12521	CA	SER	S	171	-81.513	110.081	69.583	1	178.37	C
ATOM	12522	CB	SER	S	171	-80.49	110.017	68.451	1	161.33	C
ATOM	12523	OG	SER	S	171	-79.489	109.045	68.719	1	148.74	O
ATOM	12524	C	SER	S	171	-81.807	108.707	70.167	1	189.32	C
ATOM	12525	O	SER	S	171	-81.166	107.713	69.831	1	178.02	O
ATOM	12526	N	THR	S	172	-82.761	108.681	71.091	1	200.77	N
ATOM	12527	CA	THR	S	172	-82.773	107.646	72.112	1	187.41	C
ATOM	12528	CB	THR	S	172	-83.399	108.128	73.433	1	183.46	C
ATOM	12529	OG1	THR	S	172	-84.664	108.755	73.183	1	190.28	O
ATOM	12530	CG2	THR	S	172	-82.463	109.093	74.15	1	175.8	C
ATOM	12531	C	THR	S	172	-83.414	106.333	71.711	1	176.29	C
ATOM	12532	O	THR	S	172	-84.356	106.268	70.907	1	156.13	O
ATOM	12533	N	TYR	S	173	-82.877	105.305	72.361	1	168.81	N
ATOM	12534	CA	TYR	S	173	-83.06	103.91	72.042	1	159.42	C
ATOM	12535	CB	TYR	S	173	-81.689	103.369	71.556	1	157.56	C
ATOM	12536	CG	TYR	S	173	-81.658	102.354	70.412	1	161.16	C
ATOM	12537	CD1	TYR	S	173	-82.756	102.141	69.554	1	169.34	C

ATOM	12538	CE1	TYR	S	173	-82.691	101.218	68.516	1	170.85	C
ATOM	12539	CZ	TYR	S	173	-81.524	100.506	68.3	1	168.62	C
ATOM	12540	OH	TYR	S	173	-81.471	99.592	67.266	1	164.28	O
ATOM	12541	CE2	TYR	S	173	-80.422	100.711	69.119	1	160.89	C
ATOM	12542	CD2	TYR	S	173	-80.489	101.641	70.152	1	149.76	C
ATOM	12543	C	TYR	S	173	-83.544	103.247	73.349	1	142.63	C
ATOM	12544	O	TYR	S	173	-82.87	103.337	74.373	1	108.79	O
ATOM	12545	N	SER	S	174	-84.712	102.601	73.296	1	141.19	N
ATOM	12546	CA	SER	S	174	-85.487	102.205	74.483	1	137.06	C
ATOM	12547	CB	SER	S	174	-86.742	103.092	74.57	1	135.45	C
ATOM	12548	OG	SER	S	174	-86.934	103.651	75.856	1	130.38	O
ATOM	12549	C	SER	S	174	-85.891	100.719	74.375	1	129.88	C
ATOM	12550	O	SER	S	174	-86.431	100.327	73.347	1	130.65	O
ATOM	12551	N	LEU	S	175	-85.623	99.922	75.42	1	123.14	N
ATOM	12552	CA	LEU	S	175	-85.923	98.467	75.463	1	125.54	C
ATOM	12553	CB	LEU	S	175	-84.735	97.696	76.057	1	129.4	C
ATOM	12554	CG	LEU	S	175	-84.582	96.202	75.683	1	131.2	C
ATOM	12555	CD1	LEU	S	175	-83.425	95.926	74.716	1	126.85	C
ATOM	12556	CD2	LEU	S	175	-84.465	95.326	76.935	1	132.59	C
ATOM	12557	C	LEU	S	175	-87.19	98.182	76.296	1	127.53	C
ATOM	12558	O	LEU	S	175	-87.729	99.099	76.891	1	135.85	O
ATOM	12559	N	SER	S	176	-87.649	96.924	76.365	1	126.97	N
ATOM	12560	CA	SER	S	176	-88.938	96.589	77.001	1	120.32	C
ATOM	12561	CB	SER	S	176	-90.079	97.062	76.077	1	119.69	C
ATOM	12562	OG	SER	S	176	-91.311	96.392	76.29	1	123.51	O
ATOM	12563	C	SER	S	176	-89.104	95.096	77.371	1	113.99	C
ATOM	12564	O	SER	S	176	-90.032	94.429	76.894	1	110.15	O
ATOM	12565	N	SER	S	177	-88.223	94.589	78.238	1	111.91	N
ATOM	12566	CA	SER	S	177	-88.317	93.195	78.733	1	106.46	C
ATOM	12567	CB	SER	S	177	-87.146	92.841	79.655	1	100.63	C
ATOM	12568	OG	SER	S	177	-87.375	91.59	80.286	1	90.46	O
ATOM	12569	C	SER	S	177	-89.601	92.949	79.508	1	111.51	C
ATOM	12570	O	SER	S	177	-90.109	93.86	80.153	1	125.47	O
ATOM	12571	N	THR	S	178	-90.113	91.719	79.435	1	113.69	N
ATOM	12572	CA	THR	S	178	-91.275	91.273	80.225	1	110.82	C
ATOM	12573	CB	THR	S	178	-92.637	91.401	79.469	1	105.83	C
ATOM	12574	OG1	THR	S	178	-92.81	90.288	78.58	1	116.13	O
ATOM	12575	CG2	THR	S	178	-92.773	92.734	78.671	1	98.12	C
ATOM	12576	C	THR	S	178	-91.064	89.805	80.611	1	107.46	C
ATOM	12577	O	THR	S	178	-90.707	88.985	79.759	1	107.9	O
ATOM	12578	N	LEU	S	179	-91.287	89.485	81.885	1	108.49	N
ATOM	12579	CA	LEU	S	179	-91.226	88.106	82.383	1	104.04	C
ATOM	12580	CB	LEU	S	179	-90.368	88.049	83.645	1	96.16	C
ATOM	12581	CG	LEU	S	179	-89.867	86.68	84.104	1	97.76	C

ATOM	12582	CD1	LEU	S	179	-89.113	86.856	85.411	1	103.74	C
ATOM	12583	CD2	LEU	S	179	-90.937	85.619	84.296	1	96.04	C
ATOM	12584	C	LEU	S	179	-92.626	87.599	82.691	1	104.37	C
ATOM	12585	O	LEU	S	179	-93.025	87.58	83.857	1	116.89	O
ATOM	12586	N	THR	S	180	-93.368	87.168	81.668	1	107.3	N
ATOM	12587	CA	THR	S	180	-94.731	86.65	81.9	1	109.33	C
ATOM	12588	CB	THR	S	180	-95.609	86.455	80.627	1	109.88	C
ATOM	12589	OG1	THR	S	180	-95.374	85.163	80.048	1	125.21	O
ATOM	12590	CG2	THR	S	180	-95.37	87.541	79.58	1	109.56	C
ATOM	12591	C	THR	S	180	-94.571	85.343	82.684	1	111.64	C
ATOM	12592	O	THR	S	180	-93.684	84.538	82.378	1	104.69	O
ATOM	12593	N	LEU	S	181	-95.39	85.17	83.723	1	116.1	N
ATOM	12594	CA	LEU	S	181	-95.206	84.069	84.66	1	112.09	C
ATOM	12595	CB	LEU	S	181	-94.146	84.439	85.7	1	105.04	C
ATOM	12596	CG	LEU	S	181	-93.132	83.337	85.99	1	107.08	C
ATOM	12597	CD1	LEU	S	181	-92.282	83.746	87.194	1	106.09	C
ATOM	12598	CD2	LEU	S	181	-93.786	81.972	86.201	1	104.93	C
ATOM	12599	C	LEU	S	181	-96.5	83.736	85.37	1	118.78	C
ATOM	12600	O	LEU	S	181	-97.018	84.573	86.103	1	128.7	O
ATOM	12601	N	SER	S	182	-96.993	82.511	85.162	1	122.51	N
ATOM	12602	CA	SER	S	182	-98.258	82.008	85.743	1	122.4	C
ATOM	12603	CB	SER	S	182	-98.209	80.48	85.865	1	120.66	C
ATOM	12604	OG	SER	S	182	-97.318	80.087	86.902	1	101.4	O
ATOM	12605	C	SER	S	182	-98.558	82.553	87.137	1	124.74	C
ATOM	12606	O	SER	S	182	-97.707	82.411	88.03	1	119.11	O
ATOM	12607	N	LYS	S	183	-99.746	83.15	87.324	1	111.45	N
ATOM	12608	CA	LYS	S	183	-100.177	83.632	88.635	1	101.65	C
ATOM	12609	CB	LYS	S	183	-101.697	83.78	88.738	1	109.88	C
ATOM	12610	CG	LYS	S	183	-102.201	83.96	90.183	1	120.98	C
ATOM	12611	CD	LYS	S	183	-103.714	84.109	90.305	1	125.3	C
ATOM	12612	CE	LYS	S	183	-104.311	83.304	91.447	1	133.78	C
ATOM	12613	NZ	LYS	S	183	-105.737	82.974	91.151	1	139.45	N
ATOM	12614	C	LYS	S	183	-99.698	82.657	89.679	1	95.7	C
ATOM	12615	O	LYS	S	183	-98.901	83.013	90.534	1	105.44	O
ATOM	12616	N	ALA	S	184	-100.169	81.424	89.576	1	89.89	N
ATOM	12617	CA	ALA	S	184	-99.705	80.326	90.411	1	99.9	C
ATOM	12618	CB	ALA	S	184	-99.936	79.008	89.684	1	111.11	C
ATOM	12619	C	ALA	S	184	-98.235	80.433	90.839	1	105.34	C
ATOM	12620	O	ALA	S	184	-97.946	80.486	92.04	1	111.88	O
ATOM	12621	N	ASP	S	185	-97.318	80.477	89.867	1	110.44	N
ATOM	12622	CA	ASP	S	185	-95.876	80.58	90.177	1	114.64	C
ATOM	12623	CB	ASP	S	185	-94.989	79.98	89.061	1	120.77	C
ATOM	12624	CG	ASP	S	185	-94.845	78.451	89.159	1	119.26	C
ATOM	12625	OD1	ASP	S	185	-94.645	77.932	90.285	1	111.16	O

ATOM	12626	OD2	ASP	S	185	-94.905	77.773	88.103	1	117.21	O
ATOM	12627	C	ASP	S	185	-95.422	82.007	90.515	1	108.21	C
ATOM	12628	O	ASP	S	185	-94.393	82.178	91.163	1	101.36	O
ATOM	12629	N	TYR	S	186	-96.162	83.028	90.087	1	104.2	N
ATOM	12630	CA	TYR	S	186	-95.929	84.371	90.613	1	112.48	C
ATOM	12631	CB	TYR	S	186	-96.817	85.432	89.943	1	114.28	C
ATOM	12632	CG	TYR	S	186	-96.393	86.838	90.313	1	117.62	C
ATOM	12633	CD1	TYR	S	186	-96.907	87.473	91.436	1	120.57	C
ATOM	12634	CE1	TYR	S	186	-96.506	88.745	91.792	1	124.22	C
ATOM	12635	CZ	TYR	S	186	-95.569	89.398	91.029	1	132.04	C
ATOM	12636	OH	TYR	S	186	-95.151	90.663	91.372	1	142.67	O
ATOM	12637	CE2	TYR	S	186	-95.032	88.786	89.917	1	137.78	C
ATOM	12638	CD2	TYR	S	186	-95.443	87.511	89.569	1	131.77	C
ATOM	12639	C	TYR	S	186	-96.124	84.404	92.143	1	125.36	C
ATOM	12640	O	TYR	S	186	-95.39	85.107	92.847	1	135.29	O
ATOM	12641	N	GLU	S	187	-97.089	83.629	92.652	1	125.78	N
ATOM	12642	CA	GLU	S	187	-97.434	83.63	94.083	1	119.78	C
ATOM	12643	CB	GLU	S	187	-98.955	83.457	94.258	1	112.41	C
ATOM	12644	CG	GLU	S	187	-99.738	84.688	93.813	1	110.23	C
ATOM	12645	CD	GLU	S	187	-101.252	84.533	93.897	1	116.9	C
ATOM	12646	OE1	GLU	S	187	-101.761	83.433	94.231	1	108.4	O
ATOM	12647	OE2	GLU	S	187	-101.942	85.536	93.61	1	128.47	O
ATOM	12648	C	GLU	S	187	-96.637	82.621	94.932	1	122.36	C
ATOM	12649	O	GLU	S	187	-97.117	82.17	95.977	1	132.17	O
ATOM	12650	N	LYS	S	188	-95.417	82.291	94.495	1	121.64	N
ATOM	12651	CA	LYS	S	188	-94.455	81.535	95.31	1	127.41	C
ATOM	12652	CB	LYS	S	188	-93.857	80.367	94.499	1	134.03	C
ATOM	12653	CG	LYS	S	188	-94.373	78.987	94.875	1	135.06	C
ATOM	12654	CD	LYS	S	188	-95.784	78.763	94.372	1	135.03	C
ATOM	12655	CE	LYS	S	188	-96.398	77.531	95.009	1	134.5	C
ATOM	12656	NZ	LYS	S	188	-97.783	77.327	94.509	1	139.15	N
ATOM	12657	C	LYS	S	188	-93.315	82.402	95.87	1	127.31	C
ATOM	12658	O	LYS	S	188	-92.56	81.926	96.732	1	122.33	O
ATOM	12659	N	HIS	S	189	-93.199	83.655	95.404	1	131.05	N
ATOM	12660	CA	HIS	S	189	-91.987	84.467	95.609	1	133.75	C
ATOM	12661	CB	HIS	S	189	-91.193	84.546	94.298	1	131.99	C
ATOM	12662	CG	HIS	S	189	-91.124	83.256	93.535	1	132.42	C
ATOM	12663	ND1	HIS	S	189	-90.388	82.173	93.97	1	137.57	N
ATOM	12664	CE1	HIS	S	189	-90.492	81.19	93.093	1	132.94	C
ATOM	12665	NE2	HIS	S	189	-91.258	81.602	92.097	1	135.57	N
ATOM	12666	CD2	HIS	S	189	-91.662	82.891	92.348	1	131.1	C
ATOM	12667	C	HIS	S	189	-92.235	85.898	96.133	1	137.27	C
ATOM	12668	O	HIS	S	189	-93.383	86.332	96.304	1	141.37	O
ATOM	12669	N	LYS	S	190	-91.131	86.608	96.379	1	139.41	N

ATOM	12670	CA	LYS	S	190	-91.14	87.985	96.869	1	151.83	C
ATOM	12671	CB	LYS	S	190	-90.572	88.078	98.301	1	165.21	C
ATOM	12672	CG	LYS	S	190	-91.106	87.031	99.271	1	181.59	C
ATOM	12673	CD	LYS	S	190	-90.301	85.732	99.252	1	196.46	C
ATOM	12674	CE	LYS	S	190	-91.184	84.489	99.325	1	211.32	C
ATOM	12675	NZ	LYS	S	190	-90.441	83.226	99.038	1	216.71	N
ATOM	12676	C	LYS	S	190	-90.347	88.887	95.921	1	150.78	C
ATOM	12677	O	LYS	S	190	-90.945	89.713	95.233	1	154.8	O
ATOM	12678	N	VAL	S	191	-89.018	88.708	95.867	1	145.99	N
ATOM	12679	CA	VAL	S	191	-88.106	89.657	95.195	1	145.18	C
ATOM	12680	CB	VAL	S	191	-86.636	89.568	95.715	1	149.51	C
ATOM	12681	CG1	VAL	S	191	-85.73	90.575	94.995	1	152.25	C
ATOM	12682	CG2	VAL	S	191	-86.554	89.77	97.225	1	151.56	C
ATOM	12683	C	VAL	S	191	-88.1	89.425	93.688	1	137.39	C
ATOM	12684	O	VAL	S	191	-87.349	88.586	93.189	1	131.74	O
ATOM	12685	N	TYR	S	192	-88.933	90.179	92.976	1	126.24	N
ATOM	12686	CA	TYR	S	192	-88.958	90.154	91.521	1	122.66	C
ATOM	12687	CB	TYR	S	192	-90.391	90.264	91.007	1	127.98	C
ATOM	12688	CG	TYR	S	192	-91.192	89.011	91.29	1	131.42	C
ATOM	12689	CD1	TYR	S	192	-90.847	87.807	90.69	1	130.56	C
ATOM	12690	CE1	TYR	S	192	-91.557	86.65	90.944	1	126.96	C
ATOM	12691	CZ	TYR	S	192	-92.633	86.686	91.801	1	126.46	C
ATOM	12692	OH	TYR	S	192	-93.325	85.537	92.051	1	119.8	O
ATOM	12693	CE2	TYR	S	192	-92.996	87.861	92.421	1	133.96	C
ATOM	12694	CD2	TYR	S	192	-92.278	89.017	92.164	1	133.04	C
ATOM	12695	C	TYR	S	192	-88.073	91.273	90.998	1	121.14	C
ATOM	12696	O	TYR	S	192	-88.443	92.436	91.053	1	108.04	O
ATOM	12697	N	ALA	S	193	-86.912	90.878	90.468	1	139.72	N
ATOM	12698	CA	ALA	S	193	-85.747	91.747	90.246	1	137.03	C
ATOM	12699	CB	ALA	S	193	-84.611	91.284	91.158	1	137.06	C
ATOM	12700	C	ALA	S	193	-85.261	91.753	88.781	1	131.25	C
ATOM	12701	O	ALA	S	193	-85.104	90.693	88.162	1	122.7	O
ATOM	12702	N	CYS	S	194	-84.997	92.952	88.257	1	124.28	N
ATOM	12703	CA	CYS	S	194	-84.411	93.152	86.929	1	114.36	C
ATOM	12704	CB	CYS	S	194	-85.329	94.045	86.103	1	110.9	C
ATOM	12705	SG	CYS	S	194	-84.449	94.972	84.834	1	129.54	S
ATOM	12706	C	CYS	S	194	-83.015	93.794	87.052	1	112.72	C
ATOM	12707	O	CYS	S	194	-82.902	94.881	87.611	1	114.45	O
ATOM	12708	N	GLU	S	195	-81.973	93.12	86.536	1	120.56	N
ATOM	12709	CA	GLU	S	195	-80.56	93.603	86.562	1	122.63	C
ATOM	12710	CB	GLU	S	195	-79.632	92.53	87.129	1	120.38	C
ATOM	12711	CG	GLU	S	195	-78.187	92.981	87.287	1	127.77	C
ATOM	12712	CD	GLU	S	195	-77.324	91.964	88.006	1	147.08	C
ATOM	12713	OE1	GLU	S	195	-77.629	90.753	87.922	1	148.95	O

ATOM	12714	OE2	GLU	S	195	-76.329	92.379	88.649	1	165.68	O
ATOM	12715	C	GLU	S	195	-80.054	94.025	85.167	1	125.07	C
ATOM	12716	O	GLU	S	195	-80.417	93.409	84.157	1	136.72	O
ATOM	12717	N	VAL	S	196	-79.182	95.039	85.136	1	108.29	N
ATOM	12718	CA	VAL	S	196	-78.901	95.815	83.927	1	106.14	C
ATOM	12719	CB	VAL	S	196	-79.607	97.19	84.022	1	105.7	C
ATOM	12720	CG1	VAL	S	196	-79.255	98.097	82.844	1	107.97	C
ATOM	12721	CG2	VAL	S	196	-81.118	96.995	84.112	1	107.18	C
ATOM	12722	C	VAL	S	196	-77.399	96.018	83.716	1	113.83	C
ATOM	12723	O	VAL	S	196	-76.653	96.124	84.684	1	121.7	O
ATOM	12724	N	THR	S	197	-76.98	96.066	82.442	1	123.07	N
ATOM	12725	CA	THR	S	197	-75.595	96.388	82.023	1	118.91	C
ATOM	12726	CB	THR	S	197	-74.837	95.122	81.584	1	113.97	C
ATOM	12727	OG1	THR	S	197	-74.909	94.122	82.613	1	106.91	O
ATOM	12728	CG2	THR	S	197	-73.371	95.454	81.258	1	115.06	C
ATOM	12729	C	THR	S	197	-75.602	97.348	80.826	1	118.57	C
ATOM	12730	O	THR	S	197	-76.437	97.196	79.934	1	126.32	O
ATOM	12731	N	HIS	S	198	-74.682	98.319	80.797	1	114.67	N
ATOM	12732	CA	HIS	S	198	-74.632	99.318	79.707	1	124.14	C
ATOM	12733	CB	HIS	S	198	-75.789	100.337	79.866	1	125.45	C
ATOM	12734	CG	HIS	S	198	-76.176	101.049	78.598	1	130.12	C
ATOM	12735	ND1	HIS	S	198	-76.4	102.41	78.549	1	142.36	N
ATOM	12736	CE1	HIS	S	198	-76.715	102.762	77.314	1	135.99	C
ATOM	12737	NE2	HIS	S	198	-76.695	101.681	76.558	1	133.64	N
ATOM	12738	CD2	HIS	S	198	-76.36	100.597	77.335	1	130.56	C
ATOM	12739	C	HIS	S	198	-73.261	100.02	79.655	1	131.66	C
ATOM	12740	O	HIS	S	198	-72.345	99.66	80.397	1	129.54	O
ATOM	12741	N	GLN	S	199	-73.116	100.98	78.739	1	142.28	N
ATOM	12742	CA	GLN	S	199	-71.923	101.827	78.633	1	148.07	C
ATOM	12743	CB	GLN	S	199	-72.009	102.734	77.387	1	159.85	C
ATOM	12744	CG	GLN	S	199	-72.084	102.021	76.039	1	162.84	C
ATOM	12745	CD	GLN	S	199	-70.932	102.351	75.104	1	158.4	C
ATOM	12746	OE1	GLN	S	199	-69.762	102.26	75.483	1	152.04	O
ATOM	12747	NE2	GLN	S	199	-71.26	102.728	73.868	1	155.43	N
ATOM	12748	C	GLN	S	199	-71.757	102.715	79.861	1	144.66	C
ATOM	12749	O	GLN	S	199	-70.805	102.545	80.63	1	128.97	O
ATOM	12750	N	GLY	S	200	-72.71	103.637	80.043	1	150.58	N
ATOM	12751	CA	GLY	S	200	-72.603	104.733	81.013	1	154.62	C
ATOM	12752	C	GLY	S	200	-72.671	104.328	82.474	1	156.8	C
ATOM	12753	O	GLY	S	200	-72.381	105.139	83.355	1	158.57	O
ATOM	12754	N	LEU	S	201	-73.077	103.085	82.727	1	154.31	N
ATOM	12755	CA	LEU	S	201	-73.062	102.501	84.06	1	144.37	C
ATOM	12756	CB	LEU	S	201	-74.146	101.43	84.175	1	141.11	C
ATOM	12757	CG	LEU	S	201	-75.622	101.854	84.215	1	144.63	C

ATOM	12758	CD1	LEU	S	201	-75.952	103.145	83.472	1	144.88	C
ATOM	12759	CD2	LEU	S	201	-76.485	100.714	83.694	1	149.58	C
ATOM	12760	C	LEU	S	201	-71.694	101.885	84.333	1	142.62	C
ATOM	12761	O	LEU	S	201	-71.327	100.888	83.715	1	137.06	O
ATOM	12762	N	SER	S	202	-70.952	102.487	85.263	1	147.17	N
ATOM	12763	CA	SER	S	202	-69.674	101.941	85.756	1	154.33	C
ATOM	12764	CB	SER	S	202	-69.112	102.871	86.845	1	153.37	C
ATOM	12765	OG	SER	S	202	-67.941	102.347	87.449	1	155.32	O
ATOM	12766	C	SER	S	202	-69.763	100.484	86.286	1	159.97	C
ATOM	12767	O	SER	S	202	-68.758	99.767	86.324	1	156.58	O
ATOM	12768	N	SER	S	203	-70.957	100.068	86.713	1	162.94	N
ATOM	12769	CA	SER	S	203	-71.218	98.691	87.157	1	168.19	C
ATOM	12770	CB	SER	S	203	-70.812	98.54	88.633	1	167.38	C
ATOM	12771	OG	SER	S	203	-70.58	99.797	89.246	1	168.88	O
ATOM	12772	C	SER	S	203	-72.701	98.32	86.909	1	173.53	C
ATOM	12773	O	SER	S	203	-73.472	99.17	86.453	1	171.85	O
ATOM	12774	N	PRO	S	204	-73.101	97.051	87.173	1	167.59	N
ATOM	12775	CA	PRO	S	204	-74.503	96.678	86.897	1	157.03	C
ATOM	12776	CB	PRO	S	204	-74.54	95.169	87.216	1	155.5	C
ATOM	12777	CG	PRO	S	204	-73.286	94.873	87.969	1	152.05	C
ATOM	12778	CD	PRO	S	204	-72.281	95.858	87.462	1	157.43	C
ATOM	12779	C	PRO	S	204	-75.573	97.427	87.72	1	150.73	C
ATOM	12780	O	PRO	S	204	-75.448	97.521	88.941	1	158.62	O
ATOM	12781	N	VAL	S	205	-76.604	97.942	87.044	1	139.98	N
ATOM	12782	CA	VAL	S	205	-77.764	98.59	87.7	1	135.69	C
ATOM	12783	CB	VAL	S	205	-78.264	99.821	86.872	1	130.87	C
ATOM	12784	CG1	VAL	S	205	-79.776	100.06	86.946	1	122.04	C
ATOM	12785	CG2	VAL	S	205	-77.523	101.078	87.319	1	132.24	C
ATOM	12786	C	VAL	S	205	-78.861	97.548	87.971	1	137.27	C
ATOM	12787	O	VAL	S	205	-78.888	96.497	87.331	1	155.42	O
ATOM	12788	N	THR	S	206	-79.722	97.827	88.957	1	133.69	N
ATOM	12789	CA	THR	S	206	-80.908	96.999	89.269	1	124.53	C
ATOM	12790	CB	THR	S	206	-80.568	95.797	90.182	1	115.78	C
ATOM	12791	OG1	THR	S	206	-81.507	95.759	91.261	1	114.62	O
ATOM	12792	CG2	THR	S	206	-79.147	95.874	90.779	1	111.27	C
ATOM	12793	C	THR	S	206	-82.074	97.779	89.927	1	127.14	C
ATOM	12794	O	THR	S	206	-81.881	98.438	90.948	1	142.68	O
ATOM	12795	N	LYS	S	207	-83.273	97.671	89.35	1	124.01	N
ATOM	12796	CA	LYS	S	207	-84.492	98.282	89.889	1	133.3	C
ATOM	12797	CB	LYS	S	207	-85.092	99.236	88.848	1	133.41	C
ATOM	12798	CG	LYS	S	207	-86.434	99.875	89.192	1	145.16	C
ATOM	12799	CD	LYS	S	207	-86.469	100.614	90.535	1	153.51	C
ATOM	12800	CE	LYS	S	207	-87.294	99.891	91.601	1	146.33	C
ATOM	12801	NZ	LYS	S	207	-86.988	100.402	92.964	1	138.11	N

ATOM	12802	C	LYS	S	207	-85.436	97.125	90.227	1	141.62	C
ATOM	12803	O	LYS	S	207	-86.113	96.604	89.334	1	134.08	O
ATOM	12804	N	SER	S	208	-85.491	96.745	91.516	1	143.67	N
ATOM	12805	CA	SER	S	208	-85.696	95.334	91.88	1	141.74	C
ATOM	12806	CB	SER	S	208	-84.318	94.66	91.812	1	153.03	C
ATOM	12807	OG	SER	S	208	-83.732	94.76	90.523	1	164.31	O
ATOM	12808	C	SER	S	208	-86.314	94.95	93.241	1	127.06	C
ATOM	12809	O	SER	S	208	-85.584	94.682	94.189	1	117.96	O
ATOM	12810	N	PHE	S	209	-87.64	94.856	93.31	1	126.88	N
ATOM	12811	CA	PHE	S	209	-88.348	94.155	94.416	1	136.15	C
ATOM	12812	CB	PHE	S	209	-87.965	94.706	95.808	1	155.24	C
ATOM	12813	CG	PHE	S	209	-88.777	94.134	96.952	1	161.79	C
ATOM	12814	CD1	PHE	S	209	-88.577	92.821	97.371	1	161.23	C
ATOM	12815	CE1	PHE	S	209	-89.311	92.284	98.421	1	153.51	C
ATOM	12816	CZ	PHE	S	209	-90.248	93.06	99.072	1	151.51	C
ATOM	12817	CE2	PHE	S	209	-90.455	94.376	98.673	1	162.37	C
ATOM	12818	CD2	PHE	S	209	-89.724	94.909	97.62	1	160.35	C
ATOM	12819	C	PHE	S	209	-89.849	94.305	94.226	1	128.83	C
ATOM	12820	O	PHE	S	209	-90.304	95.377	93.829	1	124.87	O
ATOM	12821	N	ASN	S	210	-90.611	93.247	94.508	1	129.49	N
ATOM	12822	CA	ASN	S	210	-92.092	93.271	94.433	1	141.56	C
ATOM	12823	CB	ASN	S	210	-92.631	92.683	93.082	1	146.44	C
ATOM	12824	CG	ASN	S	210	-92.167	93.417	91.809	1	137.36	C
ATOM	12825	OD1	ASN	S	210	-92.441	92.938	90.696	1	112.34	O
ATOM	12826	ND2	ASN	S	210	-91.522	94.567	91.944	1	140.18	N
ATOM	12827	C	ASN	S	210	-92.683	92.499	95.667	1	132.67	C
ATOM	12828	O	ASN	S	210	-92.351	92.824	96.816	1	107.31	O
ATOM	12829	N	ARG	S	211	-93.54	91.493	95.429	1	124.94	N
ATOM	12830	CA	ARG	S	211	-94.088	90.647	96.479	1	118.43	C
ATOM	12831	CB	ARG	S	211	-95.208	91.38	97.241	1	117.51	C
ATOM	12832	CG	ARG	S	211	-96.016	92.422	96.465	1	115.33	C
ATOM	12833	CD	ARG	S	211	-96.802	93.342	97.411	1	127.57	C
ATOM	12834	NE	ARG	S	211	-95.927	94.279	98.143	1	133.64	N
ATOM	12835	CZ	ARG	S	211	-96.222	95.539	98.505	1	128.07	C
ATOM	12836	NH1	ARG	S	211	-97.399	96.118	98.229	1	117.07	N
ATOM	12837	NH2	ARG	S	211	-95.296	96.245	99.152	1	126.91	N
ATOM	12838	C	ARG	S	211	-94.561	89.291	95.924	1	118.47	C
ATOM	12839	O	ARG	S	211	-95.576	89.185	95.229	1	114.92	O
TER	12840		ARG	S	211						
ATOM	12841	N	GLN	U	1	-39.247	64.836	74.137	1	161.45	N
ATOM	12842	CA	GLN	U	1	-39.672	65.455	72.839	1	147.65	C
ATOM	12843	CB	GLN	U	1	-38.476	65.64	71.88	1	134.46	C
ATOM	12844	CG	GLN	U	1	-38.022	64.403	71.099	1	134.14	C
ATOM	12845	CD	GLN	U	1	-37.695	63.201	71.972	1	124.88	C

ATOM	12846	OE1	GLN	U	1	-37.282	63.35	73.123	1	121.84	O
ATOM	12847	NE2	GLN	U	1	-37.868	61.999	71.42	1	115.94	N
ATOM	12848	C	GLN	U	1	-40.801	64.663	72.16	1	149.12	C
ATOM	12849	O	GLN	U	1	-41.014	63.477	72.438	1	142.91	O
ATOM	12850	N	VAL	U	2	-41.51	65.349	71.267	1	151.01	N
ATOM	12851	CA	VAL	U	2	-42.569	64.763	70.446	1	138.14	C
ATOM	12852	CB	VAL	U	2	-43.708	65.784	70.237	1	129.64	C
ATOM	12853	CG1	VAL	U	2	-44.795	65.199	69.357	1	125.62	C
ATOM	12854	CG2	VAL	U	2	-44.28	66.248	71.573	1	132.63	C
ATOM	12855	C	VAL	U	2	-41.984	64.393	69.079	1	132.08	C
ATOM	12856	O	VAL	U	2	-41.516	65.268	68.351	1	131.81	O
ATOM	12857	N	GLN	U	3	-42.009	63.108	68.733	1	123.97	N
ATOM	12858	CA	GLN	U	3	-41.526	62.636	67.427	1	124.69	C
ATOM	12859	CB	GLN	U	3	-40.319	61.696	67.609	1	137.93	C
ATOM	12860	CG	GLN	U	3	-38.969	62.348	67.309	1	147.64	C
ATOM	12861	CD	GLN	U	3	-38.655	62.395	65.813	1	162.2	C
ATOM	12862	OE1	GLN	U	3	-38.286	61.379	65.218	1	165.92	O
ATOM	12863	NE2	GLN	U	3	-38.798	63.575	65.201	1	160.96	N
ATOM	12864	C	GLN	U	3	-42.662	61.975	66.638	1	115.69	C
ATOM	12865	O	GLN	U	3	-43.637	61.532	67.216	1	128.64	O
ATOM	12866	N	LEU	U	4	-42.524	61.922	65.317	1	110.7	N
ATOM	12867	CA	LEU	U	4	-43.59	61.462	64.416	1	108.12	C
ATOM	12868	CB	LEU	U	4	-44.664	62.567	64.297	1	108.6	C
ATOM	12869	CG	LEU	U	4	-45.854	62.605	65.271	1	102.99	C
ATOM	12870	CD1	LEU	U	4	-46.576	63.943	65.267	1	91.61	C
ATOM	12871	CD2	LEU	U	4	-46.825	61.475	64.944	1	108.34	C
ATOM	12872	C	LEU	U	4	-43.017	61.129	63.018	1	109.78	C
ATOM	12873	O	LEU	U	4	-42.678	62.041	62.258	1	103.9	O
ATOM	12874	N	LYS	U	5	-42.914	59.837	62.683	1	108.4	N
ATOM	12875	CA	LYS	U	5	-42.281	59.396	61.418	1	113.02	C
ATOM	12876	CB	LYS	U	5	-40.847	58.91	61.684	1	127.91	C
ATOM	12877	CG	LYS	U	5	-39.735	59.861	61.231	1	147.45	C
ATOM	12878	CD	LYS	U	5	-39.681	61.182	62.004	1	157.65	C
ATOM	12879	CE	LYS	U	5	-38.259	61.728	62.151	1	163.8	C
ATOM	12880	NZ	LYS	U	5	-37.609	62.148	60.873	1	167.38	N
ATOM	12881	C	LYS	U	5	-43.075	58.303	60.688	1	103.98	C
ATOM	12882	O	LYS	U	5	-43.497	57.329	61.305	1	102.06	O
ATOM	12883	N	GLU	U	6	-43.209	58.448	59.365	1	99.42	N
ATOM	12884	CA	GLU	U	6	-44.11	57.61	58.539	1	96.69	C
ATOM	12885	CB	GLU	U	6	-45.138	58.446	57.764	1	94.58	C
ATOM	12886	CG	GLU	U	6	-44.623	59.717	57.122	1	97.47	C
ATOM	12887	CD	GLU	U	6	-44.712	60.911	58.061	1	108.14	C
ATOM	12888	OE1	GLU	U	6	-43.8	61.106	58.892	1	121.6	O
ATOM	12889	OE2	GLU	U	6	-45.698	61.675	57.967	1	109.87	O

ATOM	12890	C	GLU	U	6	-43.381	56.748	57.54	1	92.18	C
ATOM	12891	O	GLU	U	6	-42.532	57.242	56.821	1	101.19	O
ATOM	12892	N	SER	U	7	-43.732	55.469	57.478	1	90.57	N
ATOM	12893	CA	SER	U	7	-43.24	54.591	56.419	1	97.64	C
ATOM	12894	CB	SER	U	7	-42.921	53.186	56.979	1	96.46	C
ATOM	12895	OG	SER	U	7	-44.051	52.331	57.029	1	95.69	O
ATOM	12896	C	SER	U	7	-44.26	54.608	55.248	1	104.44	C
ATOM	12897	O	SER	U	7	-44.817	55.665	54.944	1	94.37	O
ATOM	12898	N	GLY	U	8	-44.433	53.482	54.543	1	114.05	N
ATOM	12899	CA	GLY	U	8	-45.464	53.334	53.506	1	118.7	C
ATOM	12900	C	GLY	U	8	-45.218	53.746	52.052	1	125.51	C
ATOM	12901	O	GLY	U	8	-46.019	53.373	51.165	1	101.51	O
ATOM	12902	N	PRO	U	9	-44.124	54.493	51.766	1	149.56	N
ATOM	12903	CA	PRO	U	9	-44.073	55.085	50.416	1	159.96	C
ATOM	12904	CB	PRO	U	9	-42.649	55.694	50.336	1	170.83	C
ATOM	12905	CG	PRO	U	9	-41.882	55.119	51.475	1	168.1	C
ATOM	12906	CD	PRO	U	9	-42.889	54.786	52.526	1	158.78	C
ATOM	12907	C	PRO	U	9	-44.306	54.144	49.217	1	142.62	C
ATOM	12908	O	PRO	U	9	-44.536	52.927	49.365	1	125.7	O
ATOM	12909	N	GLY	U	10	-44.259	54.751	48.037	1	125.77	N
ATOM	12910	CA	GLY	U	10	-44.21	54.016	46.804	1	109.27	C
ATOM	12911	C	GLY	U	10	-44.905	54.712	45.668	1	103.85	C
ATOM	12912	O	GLY	U	10	-45.763	55.582	45.842	1	83.23	O
ATOM	12913	N	LEU	U	11	-44.467	54.333	44.481	1	117.41	N
ATOM	12914	CA	LEU	U	11	-45.367	54.216	43.363	1	118.85	C
ATOM	12915	CB	LEU	U	11	-44.617	53.821	42.076	1	120.49	C
ATOM	12916	CG	LEU	U	11	-45.384	53.082	40.966	1	134.54	C
ATOM	12917	CD1	LEU	U	11	-46.502	53.94	40.387	1	140.46	C
ATOM	12918	CD2	LEU	U	11	-44.438	52.607	39.868	1	142.2	C
ATOM	12919	C	LEU	U	11	-46.324	53.12	43.817	1	114.52	C
ATOM	12920	O	LEU	U	11	-45.907	52.131	44.432	1	124.44	O
ATOM	12921	N	VAL	U	12	-47.605	53.309	43.559	1	101.28	N
ATOM	12922	CA	VAL	U	12	-48.551	52.219	43.71	1	88.4	C
ATOM	12923	CB	VAL	U	12	-49.093	52.159	45.149	1	80.26	C
ATOM	12924	CG1	VAL	U	12	-49.887	53.403	45.49	1	78.81	C
ATOM	12925	CG2	VAL	U	12	-49.939	50.922	45.357	1	85.17	C
ATOM	12926	C	VAL	U	12	-49.639	52.379	42.652	1	89.6	C
ATOM	12927	O	VAL	U	12	-50.1	53.485	42.386	1	92.89	O
ATOM	12928	N	ALA	U	13	-50.027	51.275	42.025	1	89.47	N
ATOM	12929	CA	ALA	U	13	-51.032	51.317	40.955	1	87.19	C
ATOM	12930	CB	ALA	U	13	-51.222	49.933	40.344	1	87.37	C
ATOM	12931	C	ALA	U	13	-52.358	51.811	41.485	1	82.28	C
ATOM	12932	O	ALA	U	13	-52.652	51.636	42.665	1	93.81	O
ATOM	12933	N	PRO	U	14	-53.16	52.447	40.631	1	79.53	N

ATOM	12934	CA	PRO	U	14	-54.586	52.495	40.942	1	87.38	C
ATOM	12935	CB	PRO	U	14	-55.084	53.67	40.124	1	82.57	C
ATOM	12936	CG	PRO	U	14	-54.167	53.71	38.961	1	80.76	C
ATOM	12937	CD	PRO	U	14	-52.826	53.23	39.436	1	78.69	C
ATOM	12938	C	PRO	U	14	-55.196	51.181	40.449	1	100.31	C
ATOM	12939	O	PRO	U	14	-54.45	50.35	39.919	1	117.98	O
ATOM	12940	N	SER	U	15	-56.489	50.919	40.654	1	101.43	N
ATOM	12941	CA	SER	U	15	-57.319	51.541	41.661	1	97.53	C
ATOM	12942	CB	SER	U	15	-58.76	51.691	41.163	1	99.69	C
ATOM	12943	OG	SER	U	15	-58.837	52.58	40.068	1	103.32	O
ATOM	12944	C	SER	U	15	-57.243	50.559	42.819	1	102.89	C
ATOM	12945	O	SER	U	15	-58.222	49.895	43.153	1	112.37	O
ATOM	12946	N	GLN	U	16	-56.059	50.474	43.421	1	102.12	N
ATOM	12947	CA	GLN	U	16	-55.733	49.484	44.438	1	96.11	C
ATOM	12948	CB	GLN	U	16	-54.297	49.02	44.247	1	97.04	C
ATOM	12949	CG	GLN	U	16	-54.065	48.458	42.86	1	101.42	C
ATOM	12950	CD	GLN	U	16	-53.136	47.269	42.875	1	105.64	C
ATOM	12951	OE1	GLN	U	16	-52.075	47.292	43.521	1	102.08	O
ATOM	12952	NE2	GLN	U	16	-53.529	46.21	42.17	1	104.08	N
ATOM	12953	C	GLN	U	16	-55.902	50.109	45.792	1	89.49	C
ATOM	12954	O	GLN	U	16	-56.468	51.18	45.899	1	96.76	O
ATOM	12955	N	SER	U	17	-55.452	49.426	46.832	1	89.06	N
ATOM	12956	CA	SER	U	17	-55.469	49.979	48.168	1	88.96	C
ATOM	12957	CB	SER	U	17	-56.217	49.055	49.155	1	88.46	C
ATOM	12958	OG	SER	U	17	-55.944	47.675	48.955	1	85.78	O
ATOM	12959	C	SER	U	17	-54.048	50.32	48.611	1	89.82	C
ATOM	12960	O	SER	U	17	-53.063	49.748	48.114	1	99.73	O
ATOM	12961	N	LEU	U	18	-53.98	51.278	49.535	1	82.88	N
ATOM	12962	CA	LEU	U	18	-52.758	51.955	49.955	1	78.96	C
ATOM	12963	CB	LEU	U	18	-52.779	53.356	49.35	1	79.68	C
ATOM	12964	CG	LEU	U	18	-51.877	54.527	49.756	1	85.29	C
ATOM	12965	CD1	LEU	U	18	-52.313	55.189	51.063	1	86.19	C
ATOM	12966	CD2	LEU	U	18	-50.404	54.127	49.776	1	89.04	C
ATOM	12967	C	LEU	U	18	-52.788	52.007	51.466	1	79.3	C
ATOM	12968	O	LEU	U	18	-53.864	52.117	52.031	1	84.91	O
ATOM	12969	N	SER	U	19	-51.636	51.905	52.127	1	79.47	N
ATOM	12970	CA	SER	U	19	-51.593	51.978	53.595	1	82.9	C
ATOM	12971	CB	SER	U	19	-51.912	50.609	54.224	1	84.11	C
ATOM	12972	OG	SER	U	19	-51.589	50.56	55.62	1	88.53	O
ATOM	12973	C	SER	U	19	-50.272	52.513	54.148	1	85.97	C
ATOM	12974	O	SER	U	19	-49.274	51.804	54.195	1	89.07	O
ATOM	12975	N	ILE	U	20	-50.29	53.758	54.604	1	91.82	N
ATOM	12976	CA	ILE	U	20	-49.135	54.371	55.252	1	99.81	C
ATOM	12977	CB	ILE	U	20	-49.131	55.891	55.06	1	103.91	C

ATOM	12978	CG1	ILE	U	20	-49.258	56.248	53.576	1	104.46	C
ATOM	12979	CD1	ILE	U	20	-49.762	57.655	53.359	1	110.25	C
ATOM	12980	CG2	ILE	U	20	-47.858	56.504	55.641	1	108.05	C
ATOM	12981	C	ILE	U	20	-49.234	54.118	56.742	1	102.07	C
ATOM	12982	O	ILE	U	20	-50.332	54.189	57.299	1	107.59	O
ATOM	12983	N	THR	U	21	-48.099	53.869	57.392	1	99.05	N
ATOM	12984	CA	THR	U	21	-48.074	53.777	58.853	1	102.32	C
ATOM	12985	CB	THR	U	21	-47.801	52.347	59.383	1	103.17	C
ATOM	12986	OG1	THR	U	21	-46.503	52.269	59.987	1	104.5	O
ATOM	12987	CG2	THR	U	21	-47.979	51.271	58.264	1	103.77	C
ATOM	12988	C	THR	U	21	-47.064	54.753	59.423	1	99.65	C
ATOM	12989	O	THR	U	21	-45.963	54.903	58.893	1	104.38	O
ATOM	12990	N	CYS	U	22	-47.465	55.395	60.517	1	97.83	N
ATOM	12991	CA	CYS	U	22	-46.696	56.422	61.195	1	91.2	C
ATOM	12992	CB	CYS	U	22	-47.505	57.715	61.227	1	87.72	C
ATOM	12993	SG	CYS	U	22	-46.927	58.965	62.39	1	89.22	S
ATOM	12994	C	CYS	U	22	-46.399	55.963	62.607	1	92.86	C
ATOM	12995	O	CYS	U	22	-47.311	55.852	63.423	1	101.96	O
ATOM	12996	N	THR	U	23	-45.131	55.678	62.895	1	95.96	N
ATOM	12997	CA	THR	U	23	-44.708	55.405	64.269	1	93.66	C
ATOM	12998	CB	THR	U	23	-43.42	54.573	64.36	1	92.25	C
ATOM	12999	OG1	THR	U	23	-42.331	55.311	63.802	1	101.86	O
ATOM	13000	CG2	THR	U	23	-43.556	53.228	63.627	1	93.47	C
ATOM	13001	C	THR	U	23	-44.514	56.74	64.983	1	100.19	C
ATOM	13002	O	THR	U	23	-44.237	57.78	64.354	1	97.04	O
ATOM	13003	N	VAL	U	24	-44.652	56.692	66.304	1	104.64	N
ATOM	13004	CA	VAL	U	24	-44.862	57.898	67.101	1	101.11	C
ATOM	13005	CB	VAL	U	24	-46.29	57.909	67.691	1	104.88	C
ATOM	13006	CG1	VAL	U	24	-46.49	56.801	68.715	1	110.33	C
ATOM	13007	CG2	VAL	U	24	-46.618	59.247	68.316	1	101.74	C
ATOM	13008	C	VAL	U	24	-43.822	58.158	68.193	1	97.03	C
ATOM	13009	O	VAL	U	24	-43.457	59.3	68.386	1	93.42	O
ATOM	13010	N	SER	U	25	-43.344	57.119	68.881	1	101.14	N
ATOM	13011	CA	SER	U	25	-42.474	57.25	70.086	1	116.95	C
ATOM	13012	CB	SER	U	25	-41.244	56.336	69.946	1	117.44	C
ATOM	13013	OG	SER	U	25	-40.363	56.795	68.939	1	122.02	O
ATOM	13014	C	SER	U	25	-42.046	58.689	70.551	1	122.59	C
ATOM	13015	O	SER	U	25	-41.338	59.418	69.831	1	115.54	O
ATOM	13016	N	GLY	U	26	-42.459	59.051	71.776	1	121.73	N
ATOM	13017	CA	GLY	U	26	-42.45	60.441	72.27	1	116.59	C
ATOM	13018	C	GLY	U	26	-43.577	60.736	73.265	1	116.37	C
ATOM	13019	O	GLY	U	26	-43.401	61.519	74.198	1	109.63	O
ATOM	13020	N	PHE	U	27	-44.738	60.111	73.059	1	123.07	N
ATOM	13021	CA	PHE	U	27	-45.942	60.337	73.875	1	124.89	C

ATOM	13022	CB	PHE	U	27	-46.604	61.651	73.473	1	124.65	C
ATOM	13023	CG	PHE	U	27	-47.002	61.708	72.018	1	133.42	C
ATOM	13024	CD1	PHE	U	27	-46.063	61.965	71.028	1	134.4	C
ATOM	13025	CE1	PHE	U	27	-46.435	62.015	69.696	1	122.19	C
ATOM	13026	CZ	PHE	U	27	-47.749	61.81	69.334	1	113.15	C
ATOM	13027	CE2	PHE	U	27	-48.684	61.538	70.297	1	124.72	C
ATOM	13028	CD2	PHE	U	27	-48.313	61.491	71.632	1	136.93	C
ATOM	13029	C	PHE	U	27	-46.955	59.2	73.688	1	126.82	C
ATOM	13030	O	PHE	U	27	-47.061	58.645	72.59	1	131.79	O
ATOM	13031	N	SER	U	28	-47.711	58.876	74.739	1	125.91	N
ATOM	13032	CA	SER	U	28	-48.718	57.806	74.659	1	126.33	C
ATOM	13033	CB	SER	U	28	-49.273	57.414	76.037	1	133.46	C
ATOM	13034	OG	SER	U	28	-48.938	56.069	76.345	1	141.02	O
ATOM	13035	C	SER	U	28	-49.857	58.2	73.72	1	122.96	C
ATOM	13036	O	SER	U	28	-50.514	59.225	73.919	1	118.73	O
ATOM	13037	N	LEU	U	29	-50.072	57.366	72.702	1	120.76	N
ATOM	13038	CA	LEU	U	29	-51.071	57.607	71.641	1	113.17	C
ATOM	13039	CB	LEU	U	29	-50.963	56.51	70.566	1	107.32	C
ATOM	13040	CG	LEU	U	29	-50.852	56.823	69.073	1	103.8	C
ATOM	13041	CD1	LEU	U	29	-50.172	58.155	68.772	1	101.58	C
ATOM	13042	CD2	LEU	U	29	-50.134	55.652	68.391	1	100.35	C
ATOM	13043	C	LEU	U	29	-52.49	57.633	72.209	1	117.94	C
ATOM	13044	O	LEU	U	29	-53.37	58.31	71.677	1	119.37	O
ATOM	13045	N	SER	U	30	-52.685	56.856	73.277	1	119.05	N
ATOM	13046	CA	SER	U	30	-53.891	56.849	74.114	1	106.73	C
ATOM	13047	CB	SER	U	30	-53.676	55.88	75.277	1	106.77	C
ATOM	13048	OG	SER	U	30	-52.352	56.015	75.781	1	105.44	O
ATOM	13049	C	SER	U	30	-54.279	58.205	74.693	1	94.22	C
ATOM	13050	O	SER	U	30	-55.451	58.491	74.815	1	84.68	O
ATOM	13051	N	ARG	U	31	-53.302	59.022	75.071	1	93.31	N
ATOM	13052	CA	ARG	U	31	-53.583	60.308	75.71	1	100.56	C
ATOM	13053	CB	ARG	U	31	-52.388	60.735	76.567	1	113.74	C
ATOM	13054	CG	ARG	U	31	-52.612	61.978	77.428	1	124.3	C
ATOM	13055	CD	ARG	U	31	-51.376	62.303	78.259	1	134.75	C
ATOM	13056	NE	ARG	U	31	-51.529	61.915	79.664	1	142.87	N
ATOM	13057	CZ	ARG	U	31	-52.062	62.673	80.627	1	137.32	C
ATOM	13058	NH1	ARG	U	31	-52.526	63.903	80.374	1	130.1	N
ATOM	13059	NH2	ARG	U	31	-52.129	62.19	81.871	1	134.46	N
ATOM	13060	C	ARG	U	31	-53.964	61.426	74.732	1	102.91	C
ATOM	13061	O	ARG	U	31	-54.766	62.298	75.103	1	99.47	O
ATOM	13062	N	TYR	U	32	-53.391	61.408	73.515	1	104.23	N
ATOM	13063	CA	TYR	U	32	-53.596	62.471	72.502	1	101.79	C
ATOM	13064	CB	TYR	U	32	-52.265	63.071	72.111	1	98.87	C
ATOM	13065	CG	TYR	U	32	-51.502	63.788	73.18	1	97.06	C

ATOM	13066	CD1	TYR	U	32	-51.738	65.133	73.447	1	92.83	C
ATOM	13067	CE1	TYR	U	32	-50.999	65.801	74.409	1	100.58	C
ATOM	13068	CZ	TYR	U	32	-49.991	65.123	75.103	1	107.02	C
ATOM	13069	OH	TYR	U	32	-49.242	65.756	76.065	1	111.74	O
ATOM	13070	CE2	TYR	U	32	-49.728	63.797	74.833	1	106.91	C
ATOM	13071	CD2	TYR	U	32	-50.475	63.143	73.871	1	101.98	C
ATOM	13072	C	TYR	U	32	-54.21	62.005	71.175	1	104.41	C
ATOM	13073	O	TYR	U	32	-53.86	60.93	70.675	1	103.76	O
ATOM	13074	N	SER	U	33	-55.067	62.848	70.583	1	104.14	N
ATOM	13075	CA	SER	U	33	-55.532	62.654	69.19	1	101.13	C
ATOM	13076	CB	SER	U	33	-56.574	63.705	68.768	1	99.15	C
ATOM	13077	OG	SER	U	33	-57.86	63.414	69.271	1	98.46	O
ATOM	13078	C	SER	U	33	-54.353	62.786	68.25	1	92.53	C
ATOM	13079	O	SER	U	33	-53.497	63.638	68.475	1	94.53	O
ATOM	13080	N	VAL	U	34	-54.338	61.965	67.197	1	84.94	N
ATOM	13081	CA	VAL	U	34	-53.249	61.932	66.213	1	82.35	C
ATOM	13082	CB	VAL	U	34	-52.322	60.705	66.483	1	81.87	C
ATOM	13083	CG1	VAL	U	34	-52.798	59.44	65.811	1	82.39	C
ATOM	13084	CG2	VAL	U	34	-50.906	60.982	66.047	1	88.5	C
ATOM	13085	C	VAL	U	34	-53.843	61.992	64.788	1	83.05	C
ATOM	13086	O	VAL	U	34	-54.746	61.225	64.463	1	89.12	O
ATOM	13087	N	HIS	U	35	-53.351	62.921	63.962	1	85.08	N
ATOM	13088	CA	HIS	U	35	-53.979	63.28	62.67	1	87.82	C
ATOM	13089	CB	HIS	U	35	-54.156	64.794	62.598	1	88.25	C
ATOM	13090	CG	HIS	U	35	-55.04	65.365	63.657	1	92.9	C
ATOM	13091	ND1	HIS	U	35	-55.035	64.929	64.965	1	96.9	N
ATOM	13092	CE1	HIS	U	35	-55.899	65.639	65.669	1	105.73	C
ATOM	13093	NE2	HIS	U	35	-56.457	66.528	64.868	1	103.95	N
ATOM	13094	CD2	HIS	U	35	-55.93	66.385	63.609	1	99.04	C
ATOM	13095	C	HIS	U	35	-53.169	62.83	61.418	1	90.23	C
ATOM	13096	O	HIS	U	35	-51.98	62.469	61.52	1	89.39	O
ATOM	13097	N	TRP	U	36	-53.827	62.882	60.248	1	82.55	N
ATOM	13098	CA	TRP	U	36	-53.222	62.591	58.928	1	76.44	C
ATOM	13099	CB	TRP	U	36	-53.83	61.326	58.341	1	69.32	C
ATOM	13100	CG	TRP	U	36	-53.207	60.08	58.741	1	69.19	C
ATOM	13101	CD1	TRP	U	36	-53.784	59.085	59.449	1	71.6	C
ATOM	13102	NE1	TRP	U	36	-52.911	58.038	59.611	1	74.17	N
ATOM	13103	CE2	TRP	U	36	-51.734	58.351	58.991	1	77.81	C
ATOM	13104	CD2	TRP	U	36	-51.891	59.641	58.421	1	73.46	C
ATOM	13105	CE3	TRP	U	36	-50.821	60.212	57.725	1	74.63	C
ATOM	13106	CZ3	TRP	U	36	-49.642	59.486	57.614	1	80.93	C
ATOM	13107	CH2	TRP	U	36	-49.51	58.192	58.2	1	82.4	C
ATOM	13108	CZ2	TRP	U	36	-50.543	57.613	58.885	1	80.7	C
ATOM	13109	C	TRP	U	36	-53.562	63.681	57.932	1	78.42	C

ATOM	13110	O	TRP	U	36	-54.748	63.927	57.713	1	89.66	O
ATOM	13111	N	VAL	U	37	-52.57	64.311	57.297	1	75.24	N
ATOM	13112	CA	VAL	U	37	-52.867	65.216	56.162	1	75.53	C
ATOM	13113	CB	VAL	U	37	-52.787	66.704	56.542	1	74.21	C
ATOM	13114	CG1	VAL	U	37	-53.56	66.985	57.815	1	76.15	C
ATOM	13115	CG2	VAL	U	37	-51.36	67.15	56.701	1	74.33	C
ATOM	13116	C	VAL	U	37	-51.977	64.984	54.954	1	76.2	C
ATOM	13117	O	VAL	U	37	-50.925	64.331	55.047	1	72.09	O
ATOM	13118	N	ARG	U	38	-52.398	65.566	53.829	1	75.9	N
ATOM	13119	CA	ARG	U	38	-51.669	65.417	52.574	1	74.95	C
ATOM	13120	CB	ARG	U	38	-52.265	64.303	51.736	1	77.09	C
ATOM	13121	CG	ARG	U	38	-53.697	64.585	51.309	1	81.06	C
ATOM	13122	CD	ARG	U	38	-53.906	64.624	49.812	1	80.13	C
ATOM	13123	NE	ARG	U	38	-54.207	63.273	49.335	1	82.67	N
ATOM	13124	CZ	ARG	U	38	-55.388	62.837	48.894	1	81.67	C
ATOM	13125	NH1	ARG	U	38	-56.446	63.638	48.789	1	79.67	N
ATOM	13126	NH2	ARG	U	38	-55.496	61.571	48.501	1	80.54	N
ATOM	13127	C	ARG	U	38	-51.648	66.648	51.708	1	71.5	C
ATOM	13128	O	ARG	U	38	-52.487	67.539	51.83	1	69.24	O
ATOM	13129	N	GLN	U	39	-50.686	66.645	50.8	1	73.91	N
ATOM	13130	CA	GLN	U	39	-50.526	67.705	49.839	1	78.4	C
ATOM	13131	CB	GLN	U	39	-49.354	68.563	50.228	1	79.98	C
ATOM	13132	CG	GLN	U	39	-49.287	69.849	49.455	1	82.12	C
ATOM	13133	CD	GLN	U	39	-48.382	70.823	50.145	1	90.37	C
ATOM	13134	OE1	GLN	U	39	-47.301	70.447	50.621	1	85.96	O
ATOM	13135	NE2	GLN	U	39	-48.814	72.08	50.222	1	96.43	N
ATOM	13136	C	GLN	U	39	-50.34	67.126	48.434	1	80.92	C
ATOM	13137	O	GLN	U	39	-49.254	66.623	48.067	1	67.96	O
ATOM	13138	N	PRO	U	40	-51.421	67.164	47.643	1	81.64	N
ATOM	13139	CA	PRO	U	40	-51.223	66.798	46.277	1	80.46	C
ATOM	13140	CB	PRO	U	40	-52.63	66.803	45.68	1	83.59	C
ATOM	13141	CG	PRO	U	40	-53.518	67.46	46.666	1	86.53	C
ATOM	13142	CD	PRO	U	40	-52.731	67.787	47.887	1	85.18	C
ATOM	13143	C	PRO	U	40	-50.367	67.881	45.688	1	85.26	C
ATOM	13144	O	PRO	U	40	-50.538	69.048	46.073	1	84.58	O
ATOM	13145	N	PRO	U	41	-49.447	67.512	44.774	1	94.29	N
ATOM	13146	CA	PRO	U	41	-48.596	68.511	44.172	1	98.61	C
ATOM	13147	CB	PRO	U	41	-47.529	67.673	43.479	1	96.42	C
ATOM	13148	CG	PRO	U	41	-48.253	66.44	43.066	1	96.25	C
ATOM	13149	CD	PRO	U	41	-49.438	66.272	43.976	1	95.08	C
ATOM	13150	C	PRO	U	41	-49.404	69.367	43.186	1	104.75	C
ATOM	13151	O	PRO	U	41	-50.518	69.014	42.78	1	105.59	O
ATOM	13152	N	GLY	U	42	-48.818	70.476	42.785	1	113.86	N
ATOM	13153	CA	GLY	U	42	-49.593	71.66	42.49	1	121.29	C

ATOM	13154	C	GLY	U	42	-49.508	72.234	43.874	1	116.14	C
ATOM	13155	O	GLY	U	42	-48.433	72.67	44.29	1	120.71	O
ATOM	13156	N	LYS	U	43	-50.594	72.142	44.624	1	112.18	N
ATOM	13157	CA	LYS	U	43	-50.546	72.502	46.042	1	127.59	C
ATOM	13158	CB	LYS	U	43	-50.055	73.96	46.259	1	143.78	C
ATOM	13159	CG	LYS	U	43	-50.656	75.002	45.307	1	152.86	C
ATOM	13160	CD	LYS	U	43	-51.129	76.273	46.015	1	143.08	C
ATOM	13161	CE	LYS	U	43	-50.784	77.543	45.239	1	146.4	C
ATOM	13162	NZ	LYS	U	43	-51.162	77.504	43.796	1	149.96	N
ATOM	13163	C	LYS	U	43	-51.904	72.324	46.686	1	122.86	C
ATOM	13164	O	LYS	U	43	-52.859	71.87	46.041	1	121.91	O
ATOM	13165	N	GLY	U	44	-51.953	72.684	47.967	1	113.41	N
ATOM	13166	CA	GLY	U	44	-53.168	72.743	48.755	1	108.61	C
ATOM	13167	C	GLY	U	44	-52.895	71.799	49.899	1	105.14	C
ATOM	13168	O	GLY	U	44	-52.346	70.711	49.674	1	106.38	O
ATOM	13169	N	LEU	U	45	-53.23	72.205	51.123	1	86.67	N
ATOM	13170	CA	LEU	U	45	-53.107	71.287	52.254	1	81.82	C
ATOM	13171	CB	LEU	U	45	-52.66	72.015	53.516	1	81.92	C
ATOM	13172	CG	LEU	U	45	-51.148	72.004	53.777	1	82.87	C
ATOM	13173	CD1	LEU	U	45	-50.771	73.044	54.825	1	83.83	C
ATOM	13174	CD2	LEU	U	45	-50.651	70.619	54.198	1	79.47	C
ATOM	13175	C	LEU	U	45	-54.445	70.626	52.458	1	81.22	C
ATOM	13176	O	LEU	U	45	-55.454	71.314	52.461	1	94.62	O
ATOM	13177	N	GLU	U	46	-54.462	69.304	52.615	1	82.53	N
ATOM	13178	CA	GLU	U	46	-55.715	68.554	52.739	1	88.35	C
ATOM	13179	CB	GLU	U	46	-55.867	67.55	51.589	1	103.94	C
ATOM	13180	CG	GLU	U	46	-56.602	68.064	50.355	1	120.47	C
ATOM	13181	CD	GLU	U	46	-56.793	66.991	49.284	1	130.05	C
ATOM	13182	OE1	GLU	U	46	-56.594	67.294	48.08	1	142.98	O
ATOM	13183	OE2	GLU	U	46	-57.138	65.837	49.64	1	113.74	O
ATOM	13184	C	GLU	U	46	-55.729	67.798	54.049	1	88.15	C
ATOM	13185	O	GLU	U	46	-54.863	66.944	54.277	1	83.79	O
ATOM	13186	N	TRP	U	47	-56.715	68.101	54.898	1	85.59	N
ATOM	13187	CA	TRP	U	47	-56.961	67.305	56.096	1	80.59	C
ATOM	13188	CB	TRP	U	47	-57.775	68.063	57.132	1	83.7	C
ATOM	13189	CG	TRP	U	47	-57.738	67.363	58.445	1	90.15	C
ATOM	13190	CD1	TRP	U	47	-56.688	67.34	59.308	1	94.22	C
ATOM	13191	NE1	TRP	U	47	-56.989	66.59	60.405	1	90.36	N
ATOM	13192	CE2	TRP	U	47	-58.252	66.092	60.264	1	84.71	C
ATOM	13193	CD2	TRP	U	47	-58.757	66.548	59.038	1	85.68	C
ATOM	13194	CE3	TRP	U	47	-60.05	66.178	58.667	1	80.43	C
ATOM	13195	CZ3	TRP	U	47	-60.76	65.374	59.514	1	78.78	C
ATOM	13196	CH2	TRP	U	47	-60.222	64.936	60.712	1	83.42	C
ATOM	13197	CZ2	TRP	U	47	-58.973	65.296	61.104	1	82.95	C

ATOM	13198	C	TRP	U	47	-57.716	66.046	55.733	1	76.84	C
ATOM	13199	O	TRP	U	47	-58.884	66.107	55.344	1	75.22	O
ATOM	13200	N	LEU	U	48	-57.057	64.908	55.864	1	74.36	N
ATOM	13201	CA	LEU	U	48	-57.704	63.648	55.569	1	83.87	C
ATOM	13202	CB	LEU	U	48	-56.673	62.57	55.25	1	87.04	C
ATOM	13203	CG	LEU	U	48	-56.242	62.442	53.789	1	88.8	C
ATOM	13204	CD1	LEU	U	48	-56.469	63.688	52.932	1	90.19	C
ATOM	13205	CD2	LEU	U	48	-54.79	62.006	53.766	1	85.74	C
ATOM	13206	C	LEU	U	48	-58.586	63.216	56.715	1	92.4	C
ATOM	13207	O	LEU	U	48	-59.812	63.248	56.604	1	105.56	O
ATOM	13208	N	GLY	U	49	-57.968	62.817	57.815	1	93.55	N
ATOM	13209	CA	GLY	U	49	-58.712	62.282	58.934	1	90.61	C
ATOM	13210	C	GLY	U	49	-57.933	62.331	60.218	1	89.76	C
ATOM	13211	O	GLY	U	49	-56.933	63.048	60.335	1	96.39	O
ATOM	13212	N	MET	U	50	-58.424	61.584	61.194	1	85.38	N
ATOM	13213	CA	MET	U	50	-57.763	61.47	62.48	1	85.84	C
ATOM	13214	CB	MET	U	50	-58.01	62.745	63.297	1	82.43	C
ATOM	13215	CG	MET	U	50	-59.48	62.99	63.604	1	79.78	C
ATOM	13216	SD	MET	U	50	-59.846	62.597	65.314	1	83.32	S
ATOM	13217	CE	MET	U	50	-59.917	64.277	65.958	1	93.99	C
ATOM	13218	C	MET	U	50	-58.268	60.272	63.266	1	81.64	C
ATOM	13219	O	MET	U	50	-59.178	59.559	62.857	1	82.69	O
ATOM	13220	N	ILE	U	51	-57.678	60.089	64.43	1	75.01	N
ATOM	13221	CA	ILE	U	51	-58.179	59.147	65.38	1	72.16	C
ATOM	13222	CB	ILE	U	51	-57.385	57.836	65.218	1	66.2	C
ATOM	13223	CG1	ILE	U	51	-57.969	56.701	66.049	1	68.13	C
ATOM	13224	CD1	ILE	U	51	-57.572	55.329	65.555	1	70.84	C
ATOM	13225	CG2	ILE	U	51	-55.919	58.053	65.497	1	64.21	C
ATOM	13226	C	ILE	U	51	-58.164	59.841	66.76	1	77.51	C
ATOM	13227	O	ILE	U	51	-57.622	60.941	66.907	1	76.53	O
ATOM	13228	N	TRP	U	52	-58.845	59.251	67.733	1	82.62	N
ATOM	13229	CA	TRP	U	52	-58.873	59.767	69.098	1	84.6	C
ATOM	13230	CB	TRP	U	52	-60.316	59.713	69.62	1	79.59	C
ATOM	13231	CG	TRP	U	52	-61.094	60.862	69.159	1	73.82	C
ATOM	13232	CD1	TRP	U	52	-61.75	60.982	67.99	1	78.44	C
ATOM	13233	NE1	TRP	U	52	-62.35	62.214	67.896	1	76.14	N
ATOM	13234	CE2	TRP	U	52	-62.056	62.924	69.024	1	73.53	C
ATOM	13235	CD2	TRP	U	52	-61.26	62.099	69.842	1	74.07	C
ATOM	13236	CE3	TRP	U	52	-60.808	62.598	71.07	1	77.71	C
ATOM	13237	CZ3	TRP	U	52	-61.172	63.89	71.443	1	77.01	C
ATOM	13238	CH2	TRP	U	52	-61.971	64.685	70.603	1	76.92	C
ATOM	13239	CZ2	TRP	U	52	-62.405	64.226	69.384	1	74.83	C
ATOM	13240	C	TRP	U	52	-57.885	58.988	69.994	1	92.68	C
ATOM	13241	O	TRP	U	52	-57.085	58.177	69.498	1	98.62	O

ATOM	13242	N	GLY	U	53	-57.9	59.271	71.296	1	88.61	N
ATOM	13243	CA	GLY	U	53	-57.215	58.419	72.258	1	88.59	C
ATOM	13244	C	GLY	U	53	-57.82	57.024	72.349	1	84.88	C
ATOM	13245	O	GLY	U	53	-57.11	56.012	72.41	1	76.88	O
ATOM	13246	N	PHE	U	54	-59.144	56.98	72.303	1	86.38	N
ATOM	13247	CA	PHE	U	54	-59.905	55.766	72.651	1	96.09	C
ATOM	13248	CB	PHE	U	54	-61.236	56.066	73.369	1	87.45	C
ATOM	13249	CG	PHE	U	54	-61.892	57.344	72.963	1	77.86	C
ATOM	13250	CD1	PHE	U	54	-61.395	58.561	73.413	1	78.84	C
ATOM	13251	CE1	PHE	U	54	-62.006	59.753	73.063	1	83.38	C
ATOM	13252	CZ	PHE	U	54	-63.133	59.741	72.268	1	80.31	C
ATOM	13253	CE2	PHE	U	54	-63.64	58.536	71.826	1	81.52	C
ATOM	13254	CD2	PHE	U	54	-63.023	57.34	72.178	1	77.8	C
ATOM	13255	C	PHE	U	54	-60.173	54.856	71.466	1	106.3	C
ATOM	13256	O	PHE	U	54	-60.527	53.688	71.664	1	110.2	O
ATOM	13257	N	GLY	U	55	-60.012	55.387	70.253	1	109.51	N
ATOM	13258	CA	GLY	U	55	-60.244	54.628	69.032	1	104.26	C
ATOM	13259	C	GLY	U	55	-61.195	55.302	68.075	1	91.19	C
ATOM	13260	O	GLY	U	55	-61.162	54.992	66.884	1	89.99	O
ATOM	13261	N	SER	U	56	-62.041	56.205	68.583	1	80.75	N
ATOM	13262	CA	SER	U	56	-62.957	56.969	67.737	1	79.1	C
ATOM	13263	CB	SER	U	56	-63.733	57.996	68.541	1	75.97	C
ATOM	13264	OG	SER	U	56	-64.81	58.497	67.741	1	76.85	O
ATOM	13265	C	SER	U	56	-62.199	57.68	66.64	1	83.06	C
ATOM	13266	O	SER	U	56	-61.021	57.99	66.81	1	91.81	O
ATOM	13267	N	THR	U	57	-62.89	57.946	65.532	1	82.3	N
ATOM	13268	CA	THR	U	57	-62.267	58.424	64.297	1	79.49	C
ATOM	13269	CB	THR	U	57	-62.204	57.279	63.259	1	80.46	C
ATOM	13270	OG1	THR	U	57	-63.495	56.66	63.126	1	77.48	O
ATOM	13271	CG2	THR	U	57	-61.188	56.216	63.676	1	78.73	C
ATOM	13272	C	THR	U	57	-63.054	59.583	63.702	1	83.34	C
ATOM	13273	O	THR	U	57	-64.251	59.735	63.979	1	83.23	O
ATOM	13274	N	ASP	U	58	-62.371	60.411	62.908	1	89.02	N
ATOM	13275	CA	ASP	U	58	-63.042	61.365	61.997	1	93.2	C
ATOM	13276	CB	ASP	U	58	-63.27	62.724	62.661	1	87.42	C
ATOM	13277	CG	ASP	U	58	-64.509	62.728	63.514	1	89.67	C
ATOM	13278	OD1	ASP	U	58	-65.607	62.617	62.931	1	87.53	O
ATOM	13279	OD2	ASP	U	58	-64.386	62.79	64.758	1	92.92	O
ATOM	13280	C	ASP	U	58	-62.304	61.529	60.68	1	87.39	C
ATOM	13281	O	ASP	U	58	-61.082	61.522	60.643	1	84.17	O
ATOM	13282	N	TYR	U	59	-63.076	61.694	59.612	1	83.36	N
ATOM	13283	CA	TYR	U	59	-62.561	61.668	58.257	1	80.36	C
ATOM	13284	CB	TYR	U	59	-62.997	60.375	57.595	1	77.99	C
ATOM	13285	CG	TYR	U	59	-62.6	59.114	58.272	1	71.64	C

ATOM	13286	CD1	TYR	U	59	-61.342	58.945	58.759	1	73.66	C
ATOM	13287	CE1	TYR	U	59	-60.963	57.76	59.351	1	78.6	C
ATOM	13288	CZ	TYR	U	59	-61.843	56.73	59.456	1	77.26	C
ATOM	13289	OH	TYR	U	59	-61.425	55.576	60.068	1	81.56	O
ATOM	13290	CE2	TYR	U	59	-63.109	56.86	58.954	1	79.61	C
ATOM	13291	CD2	TYR	U	59	-63.475	58.051	58.352	1	78.64	C
ATOM	13292	C	TYR	U	59	-63.128	62.795	57.406	1	80.24	C
ATOM	13293	O	TYR	U	59	-64.28	63.189	57.596	1	83.4	O
ATOM	13294	N	ASN	U	60	-62.344	63.246	56.428	1	74.36	N
ATOM	13295	CA	ASN	U	60	-62.803	64.195	55.416	1	83.05	C
ATOM	13296	CB	ASN	U	60	-61.841	64.23	54.219	1	85.61	C
ATOM	13297	CG	ASN	U	60	-62.059	65.44	53.316	1	90.52	C
ATOM	13298	OD1	ASN	U	60	-63.177	65.961	53.169	1	91.45	O
ATOM	13299	ND2	ASN	U	60	-60.979	65.902	52.709	1	94.98	N
ATOM	13300	C	ASN	U	60	-64.194	63.865	54.895	1	85.69	C
ATOM	13301	O	ASN	U	60	-64.381	62.831	54.271	1	90.77	O
ATOM	13302	N	SER	U	61	-65.145	64.763	55.144	1	83.59	N
ATOM	13303	CA	SER	U	61	-66.449	64.773	54.491	1	89.72	C
ATOM	13304	CB	SER	U	61	-66.971	66.21	54.514	1	93.32	C
ATOM	13305	OG	SER	U	61	-65.864	67.111	54.496	1	103.02	O
ATOM	13306	C	SER	U	61	-66.435	64.23	53.037	1	91.79	C
ATOM	13307	O	SER	U	61	-67.287	63.403	52.679	1	87.34	O
ATOM	13308	N	ALA	U	62	-65.467	64.677	52.223	1	90.42	N
ATOM	13309	CA	ALA	U	62	-65.313	64.193	50.834	1	88.84	C
ATOM	13310	CB	ALA	U	62	-64.548	65.195	49.993	1	85.48	C
ATOM	13311	C	ALA	U	62	-64.664	62.805	50.741	1	90.52	C
ATOM	13312	O	ALA	U	62	-65.307	61.838	50.284	1	95.95	O
ATOM	13313	N	LEU	U	63	-63.414	62.7	51.186	1	83.72	N
ATOM	13314	CA	LEU	U	63	-62.701	61.407	51.186	1	90.94	C
ATOM	13315	CB	LEU	U	63	-61.242	61.629	51.551	1	96.55	C
ATOM	13316	CG	LEU	U	63	-60.39	62.193	50.432	1	102.74	C
ATOM	13317	CD1	LEU	U	63	-59.103	62.78	50.996	1	107.72	C
ATOM	13318	CD2	LEU	U	63	-60.098	61.106	49.41	1	108.22	C
ATOM	13319	C	LEU	U	63	-63.244	60.269	52.089	1	91.76	C
ATOM	13320	O	LEU	U	63	-62.819	59.113	51.942	1	79.04	O
ATOM	13321	N	LYS	U	64	-64.151	60.6	53.015	1	94.19	N
ATOM	13322	CA	LYS	U	64	-64.714	59.656	54.002	1	87.75	C
ATOM	13323	CB	LYS	U	64	-66.081	60.144	54.516	1	91.06	C
ATOM	13324	CG	LYS	U	64	-66.372	59.763	55.964	1	99.32	C
ATOM	13325	CD	LYS	U	64	-67.552	60.553	56.538	1	109.19	C
ATOM	13326	CE	LYS	U	64	-67.294	61.112	57.936	1	108.65	C
ATOM	13327	NZ	LYS	U	64	-68.156	62.305	58.185	1	108.48	N
ATOM	13328	C	LYS	U	64	-64.867	58.235	53.487	1	84.07	C
ATOM	13329	O	LYS	U	64	-64.326	57.314	54.077	1	79.76	O

ATOM	13330	N	SER	U	65	-65.555	58.078	52.356	1	84.45	N
ATOM	13331	CA	SER	U	65	-66.048	56.768	51.906	1	80.99	C
ATOM	13332	CB	SER	U	65	-66.961	56.935	50.683	1	84.39	C
ATOM	13333	OG	SER	U	65	-66.233	57.312	49.522	1	82.92	O
ATOM	13334	C	SER	U	65	-64.985	55.712	51.591	1	77.02	C
ATOM	13335	O	SER	U	65	-65.308	54.53	51.504	1	75.08	O
ATOM	13336	N	ARG	U	66	-63.733	56.123	51.442	1	77.07	N
ATOM	13337	CA	ARG	U	66	-62.696	55.249	50.913	1	85.18	C
ATOM	13338	CB	ARG	U	66	-62.241	55.79	49.552	1	91.16	C
ATOM	13339	CG	ARG	U	66	-63.247	56.65	48.766	1	94.63	C
ATOM	13340	CD	ARG	U	66	-62.545	57.592	47.791	1	88.52	C
ATOM	13341	NE	ARG	U	66	-61.291	56.993	47.365	1	78.26	N
ATOM	13342	CZ	ARG	U	66	-60.204	57.654	47.013	1	80.02	C
ATOM	13343	NH1	ARG	U	66	-60.161	58.978	46.939	1	76.02	N
ATOM	13344	NH2	ARG	U	66	-59.139	56.952	46.69	1	96.76	N
ATOM	13345	C	ARG	U	66	-61.476	55.186	51.846	1	90.41	C
ATOM	13346	O	ARG	U	66	-60.372	54.87	51.402	1	95.03	O
ATOM	13347	N	LEU	U	67	-61.675	55.454	53.133	1	93.34	N
ATOM	13348	CA	LEU	U	67	-60.588	55.877	54.007	1	87.31	C
ATOM	13349	CB	LEU	U	67	-60.524	57.392	53.927	1	90.72	C
ATOM	13350	CG	LEU	U	67	-59.496	58.124	54.759	1	99.94	C
ATOM	13351	CD1	LEU	U	67	-58.105	57.669	54.362	1	107.66	C
ATOM	13352	CD2	LEU	U	67	-59.666	59.621	54.549	1	99.94	C
ATOM	13353	C	LEU	U	67	-60.789	55.411	55.462	1	85.83	C
ATOM	13354	O	LEU	U	67	-61.869	55.577	56.031	1	87.19	O
ATOM	13355	N	SER	U	68	-59.746	54.835	56.057	1	83.02	N
ATOM	13356	CA	SER	U	68	-59.835	54.222	57.388	1	81.15	C
ATOM	13357	CB	SER	U	68	-60.048	52.711	57.278	1	82.47	C
ATOM	13358	OG	SER	U	68	-60.992	52.409	56.274	1	98.27	O
ATOM	13359	C	SER	U	68	-58.576	54.459	58.198	1	80.3	C
ATOM	13360	O	SER	U	68	-57.48	54.112	57.761	1	81.84	O
ATOM	13361	N	ILE	U	69	-58.737	55.011	59.394	1	79.38	N
ATOM	13362	CA	ILE	U	69	-57.632	55.147	60.322	1	79.34	C
ATOM	13363	CB	ILE	U	69	-57.562	56.56	60.897	1	74.17	C
ATOM	13364	CG1	ILE	U	69	-57.335	57.552	59.757	1	71.51	C
ATOM	13365	CD1	ILE	U	69	-57.546	58.998	60.144	1	68.79	C
ATOM	13366	CG2	ILE	U	69	-56.416	56.664	61.903	1	76.85	C
ATOM	13367	C	ILE	U	69	-57.776	54.117	61.439	1	82.91	C
ATOM	13368	O	ILE	U	69	-58.792	54.085	62.133	1	95.46	O
ATOM	13369	N	THR	U	70	-56.755	53.278	61.586	1	81.76	N
ATOM	13370	CA	THR	U	70	-56.628	52.347	62.701	1	88.13	C
ATOM	13371	CB	THR	U	70	-56.731	50.896	62.198	1	94.47	C
ATOM	13372	OG1	THR	U	70	-55.817	50.689	61.118	1	107.79	O
ATOM	13373	CG2	THR	U	70	-58.136	50.632	61.702	1	94.54	C

ATOM	13374	C	THR	U	70	-55.327	52.677	63.475	1	91.88	C
ATOM	13375	O	THR	U	70	-54.778	53.769	63.301	1	95.1	O
ATOM	13376	N	LYS	U	71	-54.841	51.78	64.336	1	95.89	N
ATOM	13377	CA	LYS	U	71	-54.022	52.198	65.491	1	96.5	C
ATOM	13378	CB	LYS	U	71	-54.836	53.201	66.334	1	89.04	C
ATOM	13379	CG	LYS	U	71	-54.124	53.74	67.552	1	87.23	C
ATOM	13380	CD	LYS	U	71	-54.634	55.118	67.969	1	86.66	C
ATOM	13381	CE	LYS	U	71	-55.207	55.146	69.379	1	88.12	C
ATOM	13382	NZ	LYS	U	71	-55.074	56.495	69.993	1	87.94	N
ATOM	13383	C	LYS	U	71	-53.652	51.009	66.387	1	100.14	C
ATOM	13384	O	LYS	U	71	-54.539	50.245	66.764	1	116.32	O
ATOM	13385	N	ASP	U	72	-52.373	50.863	66.737	1	92.74	N
ATOM	13386	CA	ASP	U	72	-51.953	49.902	67.767	1	101.83	C
ATOM	13387	CB	ASP	U	72	-51.1	48.767	67.17	1	104.24	C
ATOM	13388	CG	ASP	U	72	-50.764	47.654	68.193	1	108.18	C
ATOM	13389	OD1	ASP	U	72	-51.007	47.814	69.408	1	110.09	O
ATOM	13390	OD2	ASP	U	72	-50.244	46.598	67.771	1	106.78	O
ATOM	13391	C	ASP	U	72	-51.207	50.659	68.868	1	109.92	C
ATOM	13392	O	ASP	U	72	-49.987	50.825	68.811	1	123.12	O
ATOM	13393	N	ASN	U	73	-51.955	51.089	69.881	1	111.12	N
ATOM	13394	CA	ASN	U	73	-51.411	51.884	70.978	1	120.62	C
ATOM	13395	CB	ASN	U	73	-52.543	52.274	71.932	1	133.19	C
ATOM	13396	CG	ASN	U	73	-52.107	53.288	72.971	1	153.84	C
ATOM	13397	OD1	ASN	U	73	-52.005	54.476	72.685	1	162.42	O
ATOM	13398	ND2	ASN	U	73	-51.845	52.82	74.186	1	168.99	N
ATOM	13399	C	ASN	U	73	-50.258	51.214	71.756	1	118.68	C
ATOM	13400	O	ASN	U	73	-49.36	51.906	72.253	1	106.42	O
ATOM	13401	N	SER	U	74	-50.286	49.881	71.85	1	125.56	N
ATOM	13402	CA	SER	U	74	-49.209	49.113	72.507	1	131.37	C
ATOM	13403	CB	SER	U	74	-49.447	47.584	72.435	1	131.57	C
ATOM	13404	OG	SER	U	74	-48.816	46.961	71.315	1	116.98	O
ATOM	13405	C	SER	U	74	-47.845	49.443	71.907	1	138.69	C
ATOM	13406	O	SER	U	74	-46.924	49.836	72.633	1	141.12	O
ATOM	13407	N	LYS	U	75	-47.736	49.307	70.583	1	137.88	N
ATOM	13408	CA	LYS	U	75	-46.456	49.493	69.888	1	137.5	C
ATOM	13409	CB	LYS	U	75	-46.135	48.286	68.989	1	142.4	C
ATOM	13410	CG	LYS	U	75	-47.136	47.961	67.892	1	143.22	C
ATOM	13411	CD	LYS	U	75	-46.505	47.018	66.869	1	152.16	C
ATOM	13412	CE	LYS	U	75	-47.504	46.046	66.26	1	156.76	C
ATOM	13413	NZ	LYS	U	75	-48.597	46.719	65.5	1	163.42	N
ATOM	13414	C	LYS	U	75	-46.325	50.827	69.131	1	125.06	C
ATOM	13415	O	LYS	U	75	-45.728	50.884	68.054	1	118	O
ATOM	13416	N	SER	U	76	-46.857	51.9	69.713	1	117.87	N
ATOM	13417	CA	SER	U	76	-46.552	53.254	69.264	1	120.17	C

ATOM	13418	CB	SER	U	76	-45.098	53.597	69.632	1	126.02	C
ATOM	13419	OG	SER	U	76	-44.812	53.285	70.988	1	131.78	O
ATOM	13420	C	SER	U	76	-46.771	53.415	67.758	1	117.32	C
ATOM	13421	O	SER	U	76	-45.913	53.942	67.054	1	125.61	O
ATOM	13422	N	GLN	U	77	-47.919	52.948	67.273	1	116.25	N
ATOM	13423	CA	GLN	U	77	-48.199	52.897	65.831	1	106.73	C
ATOM	13424	CB	GLN	U	77	-47.82	51.535	65.248	1	102.24	C
ATOM	13425	CG	GLN	U	77	-46.422	51.558	64.662	1	103	C
ATOM	13426	CD	GLN	U	77	-45.91	50.204	64.221	1	105.16	C
ATOM	13427	OE1	GLN	U	77	-44.725	49.924	64.364	1	103.51	O
ATOM	13428	NE2	GLN	U	77	-46.789	49.365	63.672	1	105	N
ATOM	13429	C	GLN	U	77	-49.632	53.267	65.489	1	105.32	C
ATOM	13430	O	GLN	U	77	-50.526	53.243	66.337	1	113.32	O
ATOM	13431	N	PHE	U	78	-49.833	53.574	64.213	1	102.55	N
ATOM	13432	CA	PHE	U	78	-50.885	54.49	63.797	1	97.43	C
ATOM	13433	CB	PHE	U	78	-50.6	55.822	64.525	1	91.92	C
ATOM	13434	CG	PHE	U	78	-50.978	57.069	63.796	1	91.27	C
ATOM	13435	CD1	PHE	U	78	-52.221	57.216	63.223	1	94.83	C
ATOM	13436	CE1	PHE	U	78	-52.559	58.401	62.587	1	98.88	C
ATOM	13437	CZ	PHE	U	78	-51.665	59.467	62.55	1	92.52	C
ATOM	13438	CE2	PHE	U	78	-50.429	59.346	63.149	1	90.7	C
ATOM	13439	CD2	PHE	U	78	-50.095	58.158	63.78	1	92.47	C
ATOM	13440	C	PHE	U	78	-50.87	54.519	62.26	1	98.78	C
ATOM	13441	O	PHE	U	78	-49.829	54.737	61.652	1	111.55	O
ATOM	13442	N	PHE	U	79	-52.021	54.246	61.648	1	95.02	N
ATOM	13443	CA	PHE	U	79	-52.103	53.809	60.249	1	90.31	C
ATOM	13444	CB	PHE	U	79	-52.442	52.314	60.205	1	93.65	C
ATOM	13445	CG	PHE	U	79	-51.61	51.459	61.124	1	97.51	C
ATOM	13446	CD1	PHE	U	79	-50.499	50.778	60.646	1	101.14	C
ATOM	13447	CE1	PHE	U	79	-49.725	49.982	61.475	1	100.84	C
ATOM	13448	CZ	PHE	U	79	-50.076	49.832	62.799	1	108.25	C
ATOM	13449	CE2	PHE	U	79	-51.195	50.498	63.29	1	119.11	C
ATOM	13450	CD2	PHE	U	79	-51.96	51.3	62.452	1	103.68	C
ATOM	13451	C	PHE	U	79	-53.191	54.546	59.475	1	87.93	C
ATOM	13452	O	PHE	U	79	-54.2	54.923	60.053	1	94.01	O
ATOM	13453	N	LEU	U	80	-52.993	54.753	58.174	1	85.37	N
ATOM	13454	CA	LEU	U	80	-54.062	55.256	57.281	1	82.76	C
ATOM	13455	CB	LEU	U	80	-53.811	56.704	56.849	1	78.24	C
ATOM	13456	CG	LEU	U	80	-54.537	57.313	55.643	1	76.75	C
ATOM	13457	CD1	LEU	U	80	-54.95	58.738	55.921	1	79.5	C
ATOM	13458	CD2	LEU	U	80	-53.658	57.317	54.411	1	81.45	C
ATOM	13459	C	LEU	U	80	-54.122	54.351	56.08	1	83.61	C
ATOM	13460	O	LEU	U	80	-53.098	53.817	55.672	1	82.65	O
ATOM	13461	N	LYS	U	81	-55.321	54.182	55.525	1	85.73	N

ATOM	13462	CA	LYS	U	81	-55.553	53.28	54.394	1	85.1	C
ATOM	13463	CB	LYS	U	81	-55.971	51.889	54.899	1	86.37	C
ATOM	13464	CG	LYS	U	81	-56.887	51.062	53.992	1	89.7	C
ATOM	13465	CD	LYS	U	81	-56.859	49.594	54.416	1	98.82	C
ATOM	13466	CE	LYS	U	81	-58.147	48.849	54.104	1	103.46	C
ATOM	13467	NZ	LYS	U	81	-58.466	48.85	52.655	1	109.96	N
ATOM	13468	C	LYS	U	81	-56.609	53.844	53.466	1	87.3	C
ATOM	13469	O	LYS	U	81	-57.727	54.119	53.886	1	94.74	O
ATOM	13470	N	MET	U	82	-56.248	54.018	52.203	1	87.86	N
ATOM	13471	CA	MET	U	82	-57.213	54.355	51.177	1	85.82	C
ATOM	13472	CB	MET	U	82	-56.753	55.536	50.356	1	86.82	C
ATOM	13473	CG	MET	U	82	-56.248	56.686	51.191	1	89.51	C
ATOM	13474	SD	MET	U	82	-56.022	58.148	50.182	1	98.97	S
ATOM	13475	CE	MET	U	82	-57.681	58.481	49.593	1	92.77	C
ATOM	13476	C	MET	U	82	-57.343	53.165	50.27	1	84.63	C
ATOM	13477	O	MET	U	82	-56.346	52.531	49.937	1	80.74	O
ATOM	13478	N	ASN	U	83	-58.574	52.866	49.885	1	88.14	N
ATOM	13479	CA	ASN	U	83	-58.849	51.87	48.865	1	89.2	C
ATOM	13480	CB	ASN	U	83	-59.72	50.722	49.412	1	93	C
ATOM	13481	CG	ASN	U	83	-61.127	51.16	49.838	1	103.17	C
ATOM	13482	OD1	ASN	U	83	-61.691	52.139	49.343	1	105.55	O
ATOM	13483	ND2	ASN	U	83	-61.708	50.403	50.761	1	113.63	N
ATOM	13484	C	ASN	U	83	-59.448	52.564	47.642	1	85.83	C
ATOM	13485	O	ASN	U	83	-59.693	53.788	47.658	1	70.23	O
ATOM	13486	N	SER	U	84	-59.665	51.775	46.587	1	88.93	N
ATOM	13487	CA	SER	U	84	-60.113	52.281	45.295	1	86.67	C
ATOM	13488	CB	SER	U	84	-61.634	52.432	45.279	1	87.73	C
ATOM	13489	OG	SER	U	84	-62.063	53.302	46.314	1	93.32	O
ATOM	13490	C	SER	U	84	-59.373	53.595	45.002	1	80.3	C
ATOM	13491	O	SER	U	84	-59.983	54.669	44.918	1	73.62	O
ATOM	13492	N	LEU	U	85	-58.045	53.456	44.895	1	74.85	N
ATOM	13493	CA	LEU	U	85	-57.105	54.555	44.743	1	72.82	C
ATOM	13494	CB	LEU	U	85	-55.668	54.071	44.734	1	78.9	C
ATOM	13495	CG	LEU	U	85	-54.971	53.964	46.09	1	85.6	C
ATOM	13496	CD1	LEU	U	85	-53.678	53.144	45.955	1	87.44	C
ATOM	13497	CD2	LEU	U	85	-54.722	55.355	46.681	1	83.39	C
ATOM	13498	C	LEU	U	85	-57.296	55.298	43.467	1	76.02	C
ATOM	13499	O	LEU	U	85	-57.312	54.706	42.399	1	72.14	O
ATOM	13500	N	GLN	U	86	-57.359	56.614	43.62	1	87.25	N
ATOM	13501	CA	GLN	U	86	-57.605	57.578	42.559	1	91.83	C
ATOM	13502	CB	GLN	U	86	-58.319	58.807	43.158	1	91.68	C
ATOM	13503	CG	GLN	U	86	-59.329	59.485	42.251	1	94.43	C
ATOM	13504	CD	GLN	U	86	-60.762	59.202	42.621	1	92.88	C
ATOM	13505	OE1	GLN	U	86	-61.639	60.012	42.344	1	97	O

ATOM	13506	NE2	GLN	U	86	-61.013	58.057	43.243	1	96.73	N
ATOM	13507	C	GLN	U	86	-56.232	58.008	42.056	1	94.85	C
ATOM	13508	O	GLN	U	86	-55.264	57.957	42.825	1	92.9	O
ATOM	13509	N	THR	U	87	-56.129	58.441	40.797	1	92.34	N
ATOM	13510	CA	THR	U	87	-54.866	59.041	40.321	1	90.13	C
ATOM	13511	CB	THR	U	87	-54.806	59.182	38.786	1	86.86	C
ATOM	13512	OG1	THR	U	87	-53.431	59.22	38.408	1	82.86	O
ATOM	13513	CG2	THR	U	87	-55.552	60.456	38.245	1	86.35	C
ATOM	13514	C	THR	U	87	-54.639	60.393	40.998	1	86.54	C
ATOM	13515	O	THR	U	87	-53.495	60.838	41.194	1	79.66	O
ATOM	13516	N	ASP	U	88	-55.779	61.008	41.324	1	82.63	N
ATOM	13517	CA	ASP	U	88	-55.913	62.224	42.101	1	79.36	C
ATOM	13518	CB	ASP	U	88	-57.405	62.455	42.37	1	90.65	C
ATOM	13519	CG	ASP	U	88	-57.734	63.88	42.685	1	106.96	C
ATOM	13520	OD1	ASP	U	88	-57.581	64.727	41.781	1	131.18	O
ATOM	13521	OD2	ASP	U	88	-58.189	64.146	43.817	1	121.06	O
ATOM	13522	C	ASP	U	88	-55.184	62.16	43.425	1	71.21	C
ATOM	13523	O	ASP	U	88	-54.768	63.198	43.918	1	65.32	O
ATOM	13524	N	ASP	U	89	-55.039	60.952	43.988	1	69.73	N
ATOM	13525	CA	ASP	U	89	-54.476	60.745	45.336	1	72.64	C
ATOM	13526	CB	ASP	U	89	-54.886	59.383	45.911	1	75.15	C
ATOM	13527	CG	ASP	U	89	-56.376	59.264	46.176	1	82.22	C
ATOM	13528	OD1	ASP	U	89	-57.125	60.28	46.195	1	84.84	O
ATOM	13529	OD2	ASP	U	89	-56.795	58.11	46.386	1	82.86	O
ATOM	13530	C	ASP	U	89	-52.969	60.812	45.422	1	76.21	C
ATOM	13531	O	ASP	U	89	-52.417	60.617	46.507	1	67.14	O
ATOM	13532	N	THR	U	90	-52.295	61.05	44.294	1	89.51	N
ATOM	13533	CA	THR	U	90	-50.844	61.236	44.294	1	89.01	C
ATOM	13534	CB	THR	U	90	-50.292	61.452	42.879	1	91.03	C
ATOM	13535	OG1	THR	U	90	-50.477	60.268	42.085	1	89.89	O
ATOM	13536	CG2	THR	U	90	-48.814	61.802	42.947	1	97.79	C
ATOM	13537	C	THR	U	90	-50.538	62.469	45.114	1	81.62	C
ATOM	13538	O	THR	U	90	-51.081	63.534	44.812	1	79.21	O
ATOM	13539	N	ALA	U	91	-49.685	62.321	46.132	1	76.43	N
ATOM	13540	CA	ALA	U	91	-49.436	63.401	47.098	1	75.52	C
ATOM	13541	CB	ALA	U	91	-50.718	63.69	47.866	1	72.85	C
ATOM	13542	C	ALA	U	91	-48.288	63.13	48.092	1	80.4	C
ATOM	13543	O	ALA	U	91	-47.62	62.08	48.064	1	82.13	O
ATOM	13544	N	MET	U	92	-48.051	64.121	48.947	1	82.2	N
ATOM	13545	CA	MET	U	92	-47.226	63.967	50.14	1	86.88	C
ATOM	13546	CB	MET	U	92	-46.437	65.255	50.414	1	88.69	C
ATOM	13547	CG	MET	U	92	-45.303	65.13	51.424	1	85.79	C
ATOM	13548	SD	MET	U	92	-43.909	64.164	50.834	1	84.45	S
ATOM	13549	CE	MET	U	92	-43.526	65.075	49.336	1	84.28	C

ATOM	13550	C	MET	U	92	-48.181	63.713	51.289	1	87.12	C
ATOM	13551	O	MET	U	92	-49.102	64.491	51.506	1	85.45	O
ATOM	13552	N	TYR	U	93	-47.95	62.64	52.03	1	86.01	N
ATOM	13553	CA	TYR	U	93	-48.79	62.301	53.16	1	87.24	C
ATOM	13554	CB	TYR	U	93	-49.288	60.881	52.979	1	88.18	C
ATOM	13555	CG	TYR	U	93	-50.288	60.773	51.874	1	83.67	C
ATOM	13556	CD1	TYR	U	93	-49.907	60.437	50.599	1	84.25	C
ATOM	13557	CE1	TYR	U	93	-50.843	60.35	49.577	1	89.4	C
ATOM	13558	CZ	TYR	U	93	-52.173	60.611	49.835	1	84.32	C
ATOM	13559	OH	TYR	U	93	-53.129	60.547	48.846	1	80.96	O
ATOM	13560	CE2	TYR	U	93	-52.561	60.96	51.094	1	84.68	C
ATOM	13561	CD2	TYR	U	93	-51.623	61.033	52.107	1	86.1	C
ATOM	13562	C	TYR	U	93	-48.038	62.45	54.481	1	92.58	C
ATOM	13563	O	TYR	U	93	-47.273	61.558	54.87	1	83.61	O
ATOM	13564	N	TYR	U	94	-48.266	63.582	55.158	1	102.03	N
ATOM	13565	CA	TYR	U	94	-47.686	63.85	56.488	1	105.18	C
ATOM	13566	CB	TYR	U	94	-47.554	65.355	56.771	1	100.69	C
ATOM	13567	CG	TYR	U	94	-46.871	66.168	55.698	1	93.95	C
ATOM	13568	CD1	TYR	U	94	-45.49	66.187	55.586	1	92.54	C
ATOM	13569	CE1	TYR	U	94	-44.864	66.938	54.603	1	91.8	C
ATOM	13570	CZ	TYR	U	94	-45.623	67.698	53.727	1	91.1	C
ATOM	13571	OH	TYR	U	94	-44.999	68.441	52.747	1	97.32	O
ATOM	13572	CE2	TYR	U	94	-46.999	67.699	53.824	1	89.18	C
ATOM	13573	CD2	TYR	U	94	-47.613	66.939	54.805	1	90.71	C
ATOM	13574	C	TYR	U	94	-48.566	63.253	57.586	1	109	C
ATOM	13575	O	TYR	U	94	-49.784	63.478	57.606	1	115.69	O
ATOM	13576	N	CYS	U	95	-47.946	62.516	58.502	1	101.15	N
ATOM	13577	CA	CYS	U	95	-48.587	62.129	59.747	1	101.8	C
ATOM	13578	CB	CYS	U	95	-48.102	60.748	60.219	1	102.48	C
ATOM	13579	SG	CYS	U	95	-46.597	60.61	61.213	1	104.81	S
ATOM	13580	C	CYS	U	95	-48.25	63.246	60.718	1	95.69	C
ATOM	13581	O	CYS	U	95	-47.106	63.679	60.771	1	95.09	O
ATOM	13582	N	ALA	U	96	-49.243	63.738	61.45	1	91.33	N
ATOM	13583	CA	ALA	U	96	-49.047	64.913	62.292	1	93.84	C
ATOM	13584	CB	ALA	U	96	-49.526	66.153	61.556	1	87.02	C
ATOM	13585	C	ALA	U	96	-49.719	64.787	63.666	1	101.57	C
ATOM	13586	O	ALA	U	96	-50.379	63.786	63.947	1	101.26	O
ATOM	13587	N	ARG	U	97	-49.477	65.791	64.52	1	109.25	N
ATOM	13588	CA	ARG	U	97	-50.147	65.976	65.829	1	102.83	C
ATOM	13589	CB	ARG	U	97	-49.232	65.58	67.001	1	95.71	C
ATOM	13590	C	ARG	U	97	-50.613	67.433	66.002	1	94.95	C
ATOM	13591	O	ARG	U	97	-50.24	68.109	66.986	1	83.44	O
ATOM	13592	N	ILE	U	98	-51.426	67.898	65.041	1	85.51	N
ATOM	13593	CA	ILE	U	98	-52.091	69.188	65.15	1	81.98	C

ATOM	13594	CB	ILE	U	98	-52.943	69.532	63.903	1	68.38	C
ATOM	13595	C	ILE	U	98	-52.99	69.064	66.383	1	90.26	C
ATOM	13596	O	ILE	U	98	-53.68	68.061	66.491	1	109.17	O
ATOM	13597	N	HIS	U	99	-52.984	70.001	67.336	1	93.35	N
ATOM	13598	CA	HIS	U	99	-52.193	71.236	67.295	1	102.89	C
ATOM	13599	CB	HIS	U	99	-52.5	72.017	65.999	1	126.25	C
ATOM	13600	C	HIS	U	99	-52.51	72.163	68.452	1	95.19	C
ATOM	13601	O	HIS	U	99	-52.463	73.39	68.301	1	84.39	O
ATOM	13602	N	THR	U	100	-52.805	71.602	69.611	1	94.86	N
ATOM	13603	CA	THR	U	100	-53.676	72.283	70.588	1	108.47	C
ATOM	13604	CB	THR	U	100	-53.936	71.36	71.83	1	102.3	C
ATOM	13605	OG1	THR	U	100	-53.545	70.004	71.566	1	89.96	O
ATOM	13606	CG2	THR	U	100	-55.405	71.403	72.23	1	96.77	C
ATOM	13607	C	THR	U	100	-53.209	73.701	71.063	1	110.25	C
ATOM	13608	O	THR	U	100	-53.362	74.049	72.245	1	120.53	O
ATOM	13609	N	THR	U	101	-52.701	74.538	70.156	1	99.21	N
ATOM	13610	CA	THR	U	101	-51.62	75.488	70.5	1	109.35	C
ATOM	13611	CB	THR	U	101	-52.132	76.878	70.997	1	110.47	C
ATOM	13612	OG1	THR	U	101	-52.62	77.614	69.874	1	97.65	O
ATOM	13613	CG2	THR	U	101	-51.029	77.741	71.663	1	105.64	C
ATOM	13614	C	THR	U	101	-50.592	74.792	71.435	1	114.47	C
ATOM	13615	O	THR	U	101	-49.401	74.769	71.115	1	139.04	O
ATOM	13616	N	ALA	U	102	-51.046	74.201	72.55	1	102.34	N
ATOM	13617	CA	ALA	U	102	-50.294	73.142	73.258	1	98.19	C
ATOM	13618	CB	ALA	U	102	-51.151	72.57	74.375	1	91.73	C
ATOM	13619	C	ALA	U	102	-49.689	71.985	72.388	1	105.06	C
ATOM	13620	O	ALA	U	102	-48.951	71.153	72.929	1	90.18	O
ATOM	13621	N	GLY	U	103	-49.992	71.947	71.071	1	118.11	N
ATOM	13622	CA	GLY	U	103	-49.393	71.023	70.064	1	116.98	C
ATOM	13623	C	GLY	U	103	-47.927	71.331	69.768	1	121.13	C
ATOM	13624	O	GLY	U	103	-47.173	71.476	70.726	1	128.67	O
ATOM	13625	N	SER	U	104	-47.452	71.414	68.507	1	120.83	N
ATOM	13626	CA	SER	U	104	-48.136	71.072	67.227	1	113.15	C
ATOM	13627	CB	SER	U	104	-48.66	72.334	66.532	1	107.16	C
ATOM	13628	OG	SER	U	104	-48.737	72.176	65.114	1	96.47	O
ATOM	13629	C	SER	U	104	-47.154	70.395	66.269	1	99.72	C
ATOM	13630	O	SER	U	104	-46.797	70.949	65.238	1	89.53	O
ATOM	13631	N	TYR	U	105	-46.762	69.177	66.597	1	100.11	N
ATOM	13632	CA	TYR	U	105	-45.61	68.53	65.978	1	107.52	C
ATOM	13633	CB	TYR	U	105	-44.899	67.664	67.027	1	115.74	C
ATOM	13634	CG	TYR	U	105	-44.345	68.483	68.183	1	123.99	C
ATOM	13635	CD1	TYR	U	105	-45.158	68.894	69.249	1	119.2	C
ATOM	13636	CE1	TYR	U	105	-44.645	69.656	70.293	1	122.47	C
ATOM	13637	CZ	TYR	U	105	-43.307	70.023	70.283	1	126.96	C

ATOM	13638	OH	TYR	U	105	-42.778	70.781	71.291	1	108.3	O
ATOM	13639	CE2	TYR	U	105	-42.483	69.63	69.246	1	143.26	C
ATOM	13640	CD2	TYR	U	105	-43.002	68.868	68.202	1	145.08	C
ATOM	13641	C	TYR	U	105	-46.033	67.704	64.757	1	103.18	C
ATOM	13642	O	TYR	U	105	-47.02	66.976	64.83	1	99.65	O
ATOM	13643	N	TRP	U	106	-45.291	67.848	63.647	1	96.19	N
ATOM	13644	CA	TRP	U	106	-45.562	67.158	62.374	1	83.44	C
ATOM	13645	CB	TRP	U	106	-45.696	68.14	61.23	1	73.96	C
ATOM	13646	CG	TRP	U	106	-46.924	68.929	61.256	1	73.68	C
ATOM	13647	CD1	TRP	U	106	-47.35	69.749	62.254	1	80.4	C
ATOM	13648	NE1	TRP	U	106	-48.541	70.348	61.909	1	78.47	N
ATOM	13649	CE2	TRP	U	106	-48.894	69.923	60.656	1	70.48	C
ATOM	13650	CD2	TRP	U	106	-47.893	69.03	60.215	1	70.64	C
ATOM	13651	CE3	TRP	U	106	-48.018	68.45	58.95	1	67.92	C
ATOM	13652	CZ3	TRP	U	106	-49.106	68.774	58.181	1	63.53	C
ATOM	13653	CH2	TRP	U	106	-50.091	69.663	58.649	1	62.99	C
ATOM	13654	CZ2	TRP	U	106	-49.998	70.245	59.881	1	65.26	C
ATOM	13655	C	TRP	U	106	-44.414	66.262	62.011	1	88.99	C
ATOM	13656	O	TRP	U	106	-43.271	66.522	62.366	1	96.06	O
ATOM	13657	N	GLY	U	107	-44.724	65.217	61.262	1	99.55	N
ATOM	13658	CA	GLY	U	107	-43.71	64.329	60.73	1	103.1	C
ATOM	13659	C	GLY	U	107	-43.122	64.906	59.471	1	102.57	C
ATOM	13660	O	GLY	U	107	-43.545	65.969	58.996	1	92.03	O
ATOM	13661	N	GLN	U	108	-42.154	64.186	58.926	1	104.11	N
ATOM	13662	CA	GLN	U	108	-41.413	64.685	57.772	1	119.01	C
ATOM	13663	CB	GLN	U	108	-39.949	64.175	57.735	1	136.04	C
ATOM	13664	CG	GLN	U	108	-39.657	62.739	58.175	1	146.51	C
ATOM	13665	CD	GLN	U	108	-40.278	61.688	57.268	1	158.71	C
ATOM	13666	OE1	GLN	U	108	-41.114	60.898	57.704	1	177.58	O
ATOM	13667	NE2	GLN	U	108	-39.866	61.669	56.001	1	156.95	N
ATOM	13668	C	GLN	U	108	-42.16	64.454	56.447	1	113.84	C
ATOM	13669	O	GLN	U	108	-41.834	65.077	55.429	1	108.06	O
ATOM	13670	N	GLY	U	109	-43.171	63.586	56.469	1	107.5	N
ATOM	13671	CA	GLY	U	109	-43.91	63.221	55.259	1	112.24	C
ATOM	13672	C	GLY	U	109	-43.338	62.056	54.454	1	109.19	C
ATOM	13673	O	GLY	U	109	-42.186	61.637	54.636	1	103.2	O
ATOM	13674	N	THR	U	110	-44.181	61.522	53.574	1	101.13	N
ATOM	13675	CA	THR	U	110	-43.798	60.475	52.639	1	97.54	C
ATOM	13676	CB	THR	U	110	-44.033	59.059	53.213	1	97.05	C
ATOM	13677	OG1	THR	U	110	-43.525	58.078	52.309	1	91.92	O
ATOM	13678	CG2	THR	U	110	-45.507	58.775	53.454	1	101.92	C
ATOM	13679	C	THR	U	110	-44.575	60.706	51.34	1	101.17	C
ATOM	13680	O	THR	U	110	-45.8	60.888	51.345	1	108.49	O
ATOM	13681	N	LEU	U	111	-43.844	60.748	50.233	1	99.33	N

ATOM	13682	CA	LEU	U	111	-44.438	61.01	48.939	1	93.16	C
ATOM	13683	CB	LEU	U	111	-43.363	61.393	47.924	1	94.2	C
ATOM	13684	CG	LEU	U	111	-43.79	62.206	46.699	1	99.98	C
ATOM	13685	CD1	LEU	U	111	-42.601	62.978	46.137	1	106.26	C
ATOM	13686	CD2	LEU	U	111	-44.393	61.341	45.609	1	105.55	C
ATOM	13687	C	LEU	U	111	-45.105	59.717	48.553	1	92.92	C
ATOM	13688	O	LEU	U	111	-44.609	58.633	48.881	1	96.36	O
ATOM	13689	N	VAL	U	112	-46.25	59.829	47.9	1	87.89	N
ATOM	13690	CA	VAL	U	112	-46.921	58.677	47.332	1	87.34	C
ATOM	13691	CB	VAL	U	112	-48.088	58.237	48.238	1	90.86	C
ATOM	13692	CG1	VAL	U	112	-49.057	57.293	47.519	1	90.87	C
ATOM	13693	CG2	VAL	U	112	-47.546	57.599	49.516	1	92.36	C
ATOM	13694	C	VAL	U	112	-47.393	59.033	45.928	1	88.69	C
ATOM	13695	O	VAL	U	112	-48.245	59.918	45.753	1	80.95	O
ATOM	13696	N	THR	U	113	-46.821	58.342	44.939	1	91.06	N
ATOM	13697	CA	THR	U	113	-47.286	58.438	43.552	1	92.88	C
ATOM	13698	CB	THR	U	113	-46.125	58.458	42.506	1	95.3	C
ATOM	13699	OG1	THR	U	113	-45.781	57.129	42.098	1	107.52	O
ATOM	13700	CG2	THR	U	113	-44.872	59.151	43.042	1	92.24	C
ATOM	13701	C	THR	U	113	-48.257	57.272	43.293	1	88.73	C
ATOM	13702	O	THR	U	113	-47.996	56.12	43.704	1	78.32	O
ATOM	13703	N	VAL	U	114	-49.378	57.582	42.641	1	81.44	N
ATOM	13704	CA	VAL	U	114	-50.326	56.556	42.223	1	84.17	C
ATOM	13705	CB	VAL	U	114	-51.699	56.62	42.94	1	89.33	C
ATOM	13706	CG1	VAL	U	114	-51.613	55.948	44.298	1	91.26	C
ATOM	13707	CG2	VAL	U	114	-52.216	58.041	43.089	1	95.43	C
ATOM	13708	C	VAL	U	114	-50.512	56.674	40.735	1	83	C
ATOM	13709	O	VAL	U	114	-51.09	57.665	40.277	1	76.44	O
ATOM	13710	N	SER	U	115	-50.008	55.674	39.996	1	86.69	N
ATOM	13711	CA	SER	U	115	-49.977	55.708	38.517	1	93.94	C
ATOM	13712	CB	SER	U	115	-48.842	56.62	37.986	1	106.26	C
ATOM	13713	OG	SER	U	115	-48.889	56.784	36.56	1	102.85	O
ATOM	13714	C	SER	U	115	-49.783	54.353	37.89	1	80.79	C
ATOM	13715	O	SER	U	115	-49.113	53.481	38.451	1	71.75	O
ATOM	13716	N	ALA	U	116	-50.327	54.223	36.686	1	76.53	N
ATOM	13717	CA	ALA	U	116	-50.131	53.027	35.877	1	87.08	C
ATOM	13718	CB	ALA	U	116	-51.066	53.053	34.677	1	90.67	C
ATOM	13719	C	ALA	U	116	-48.683	52.838	35.406	1	87.44	C
ATOM	13720	O	ALA	U	116	-48.203	51.702	35.316	1	89.28	O
ATOM	13721	N	ALA	U	117	-48.001	53.951	35.134	1	87.83	N
ATOM	13722	CA	ALA	U	117	-46.736	53.948	34.404	1	89.32	C
ATOM	13723	CB	ALA	U	117	-46.246	55.372	34.193	1	88.64	C
ATOM	13724	C	ALA	U	117	-45.647	53.114	35.077	1	97.86	C
ATOM	13725	O	ALA	U	117	-45.565	53.06	36.313	1	101.56	O

ATOM	13726	N	SER	U	118	-44.846	52.455	34.231	1	101.56	N
ATOM	13727	CA	SER	U	118	-43.672	51.678	34.63	1	101.6	C
ATOM	13728	CB	SER	U	118	-43.646	50.328	33.886	1	103.63	C
ATOM	13729	OG	SER	U	118	-43.228	49.251	34.72	1	102.04	O
ATOM	13730	C	SER	U	118	-42.45	52.546	34.297	1	100.04	C
ATOM	13731	O	SER	U	118	-42.574	53.531	33.575	1	90.21	O
ATOM	13732	N	THR	U	119	-41.281	52.174	34.814	1	113.34	N
ATOM	13733	CA	THR	U	119	-40.103	53.064	34.833	1	121.46	C
ATOM	13734	CB	THR	U	119	-38.973	52.475	35.709	1	128.18	C
ATOM	13735	OG1	THR	U	119	-39.539	51.786	36.833	1	133.45	O
ATOM	13736	CG2	THR	U	119	-38.046	53.573	36.21	1	127.64	C
ATOM	13737	C	THR	U	119	-39.537	53.4	33.438	1	121.28	C
ATOM	13738	O	THR	U	119	-39.418	52.53	32.569	1	108.45	O
ATOM	13739	N	LYS	U	120	-39.173	54.672	33.259	1	132.41	N
ATOM	13740	CA	LYS	U	120	-38.789	55.223	31.955	1	131.54	C
ATOM	13741	CB	LYS	U	120	-40.04	55.742	31.231	1	130.98	C
ATOM	13742	CG	LYS	U	120	-39.913	55.766	29.717	1	135.19	C
ATOM	13743	CD	LYS	U	120	-40.425	54.482	29.076	1	141.08	C
ATOM	13744	CE	LYS	U	120	-41.89	54.594	28.661	1	140.8	C
ATOM	13745	NZ	LYS	U	120	-42.071	55.342	27.383	1	139.24	N
ATOM	13746	C	LYS	U	120	-37.769	56.371	32.082	1	125.29	C
ATOM	13747	O	LYS	U	120	-38.047	57.393	32.721	1	111.52	O
ATOM	13748	N	GLY	U	121	-36.594	56.188	31.473	1	116.16	N
ATOM	13749	CA	GLY	U	121	-35.672	57.295	31.22	1	113.69	C
ATOM	13750	C	GLY	U	121	-36.243	58.229	30.152	1	110.28	C
ATOM	13751	O	GLY	U	121	-37.197	57.864	29.453	1	106.64	O
ATOM	13752	N	PRO	U	122	-35.685	59.447	30.017	1	103.33	N
ATOM	13753	CA	PRO	U	122	-36.234	60.317	28.989	1	102.39	C
ATOM	13754	CB	PRO	U	122	-35.88	61.731	29.476	1	102.68	C
ATOM	13755	CG	PRO	U	122	-35.122	61.565	30.759	1	103.93	C
ATOM	13756	CD	PRO	U	122	-34.647	60.141	30.795	1	105.81	C
ATOM	13757	C	PRO	U	122	-35.6	60.07	27.637	1	108.82	C
ATOM	13758	O	PRO	U	122	-34.671	59.267	27.515	1	103.83	O
ATOM	13759	N	SER	U	123	-36.139	60.76	26.637	1	114.88	N
ATOM	13760	CA	SER	U	123	-35.517	60.904	25.337	1	116.5	C
ATOM	13761	CB	SER	U	123	-36.493	60.512	24.219	1	117.6	C
ATOM	13762	OG	SER	U	123	-36.787	59.122	24.235	1	118.09	O
ATOM	13763	C	SER	U	123	-35.148	62.379	25.259	1	119.97	C
ATOM	13764	O	SER	U	123	-36.012	63.217	25.01	1	120.78	O
ATOM	13765	N	VAL	U	124	-33.875	62.694	25.508	1	127.22	N
ATOM	13766	CA	VAL	U	124	-33.398	64.087	25.521	1	126.22	C
ATOM	13767	CB	VAL	U	124	-32.052	64.235	26.265	1	131.83	C
ATOM	13768	CG1	VAL	U	124	-31.577	65.689	26.24	1	133.29	C
ATOM	13769	CG2	VAL	U	124	-32.19	63.738	27.7	1	133.85	C

ATOM	13770	C	VAL	U	124	-33.248	64.615	24.096	1	118.3	C
ATOM	13771	O	VAL	U	124	-32.753	63.91	23.212	1	115.13	O
ATOM	13772	N	PHE	U	125	-33.678	65.857	23.888	1	114.19	N
ATOM	13773	CA	PHE	U	125	-33.634	66.491	22.574	1	122.05	C
ATOM	13774	CB	PHE	U	125	-35.044	66.602	21.969	1	122.67	C
ATOM	13775	CG	PHE	U	125	-35.79	65.283	21.904	1	128.73	C
ATOM	13776	CD1	PHE	U	125	-35.205	64.151	21.325	1	132.14	C
ATOM	13777	CE1	PHE	U	125	-35.89	62.941	21.269	1	127.46	C
ATOM	13778	CZ	PHE	U	125	-37.171	62.85	21.785	1	128.48	C
ATOM	13779	CE2	PHE	U	125	-37.761	63.962	22.369	1	124.79	C
ATOM	13780	CD2	PHE	U	125	-37.079	65.169	22.419	1	126.28	C
ATOM	13781	C	PHE	U	125	-32.978	67.87	22.681	1	129.39	C
ATOM	13782	O	PHE	U	125	-32.969	68.465	23.753	1	129.75	O
ATOM	13783	N	PRO	U	126	-32.387	68.36	21.576	1	143.48	N
ATOM	13784	CA	PRO	U	126	-31.842	69.711	21.531	1	142.45	C
ATOM	13785	CB	PRO	U	126	-30.858	69.641	20.36	1	151.94	C
ATOM	13786	CG	PRO	U	126	-31.458	68.635	19.44	1	150.17	C
ATOM	13787	CD	PRO	U	126	-32.071	67.608	20.346	1	150.24	C
ATOM	13788	C	PRO	U	126	-32.933	70.752	21.264	1	134.26	C
ATOM	13789	O	PRO	U	126	-33.836	70.507	20.45	1	119.31	O
ATOM	13790	N	LEU	U	127	-32.82	71.9	21.939	1	131.67	N
ATOM	13791	CA	LEU	U	127	-33.793	73.002	21.862	1	135.54	C
ATOM	13792	CB	LEU	U	127	-34.539	73.122	23.209	1	133.78	C
ATOM	13793	CG	LEU	U	127	-36.022	73.534	23.236	1	134.57	C
ATOM	13794	CD1	LEU	U	127	-36.903	72.709	22.291	1	138.11	C
ATOM	13795	CD2	LEU	U	127	-36.538	73.441	24.667	1	125.66	C
ATOM	13796	C	LEU	U	127	-33.033	74.284	21.472	1	134.23	C
ATOM	13797	O	LEU	U	127	-33.051	75.3	22.184	1	128.22	O
ATOM	13798	N	ALA	U	128	-32.438	74.218	20.276	1	133.74	N
ATOM	13799	CA	ALA	U	128	-31.218	74.97	19.894	1	129.73	C
ATOM	13800	CB	ALA	U	128	-30.386	74.119	18.922	1	128.58	C
ATOM	13801	C	ALA	U	128	-31.436	76.394	19.319	1	123.3	C
ATOM	13802	O	ALA	U	128	-32.566	76.765	19.013	1	120.39	O
ATOM	13803	N	PRO	U	129	-30.345	77.185	19.16	1	121.44	N
ATOM	13804	CA	PRO	U	129	-30.479	78.612	18.777	1	127.89	C
ATOM	13805	CB	PRO	U	129	-29.115	79.216	19.155	1	128.05	C
ATOM	13806	CG	PRO	U	129	-28.211	78.076	19.501	1	123.77	C
ATOM	13807	CD	PRO	U	129	-28.932	76.787	19.306	1	116.59	C
ATOM	13808	C	PRO	U	129	-30.821	78.899	17.294	1	135.34	C
ATOM	13809	O	PRO	U	129	-31.013	77.96	16.512	1	130.33	O
ATOM	13810	N	SER	U	130	-30.892	80.19	16.928	1	140.8	N
ATOM	13811	CA	SER	U	130	-31.329	80.625	15.573	1	139.79	C
ATOM	13812	CB	SER	U	130	-31.817	82.094	15.573	1	128.71	C
ATOM	13813	OG	SER	U	130	-30.808	83.018	15.159	1	117.62	O

ATOM	13814	C	SER	U	130	-30.244	80.428	14.502	1	138.68	C
ATOM	13815	O	SER	U	130	-30.377	80.91	13.371	1	117.57	O
ATOM	13816	N	GLY	U	137	-25.705	89.912	19.835	1	194.93	N
ATOM	13817	CA	GLY	U	137	-25.67	90.41	21.209	1	190.47	C
ATOM	13818	C	GLY	U	137	-25.882	89.32	22.247	1	185.82	C
ATOM	13819	O	GLY	U	137	-24.955	88.98	22.986	1	178.87	O
ATOM	13820	N	THR	U	138	-27.096	88.764	22.291	1	179	N
ATOM	13821	CA	THR	U	138	-27.47	87.768	23.313	1	161.81	C
ATOM	13822	CB	THR	U	138	-27.561	88.43	24.706	1	154.7	C
ATOM	13823	OG1	THR	U	138	-28.173	87.526	25.633	1	148.38	O
ATOM	13824	CG2	THR	U	138	-28.353	89.752	24.649	1	148.05	C
ATOM	13825	C	THR	U	138	-28.775	86.992	23.014	1	151.86	C
ATOM	13826	O	THR	U	138	-29.821	87.59	22.743	1	143.32	O
ATOM	13827	N	ALA	U	139	-28.702	85.662	23.087	1	140.4	N
ATOM	13828	CA	ALA	U	139	-29.831	84.788	22.725	1	141.22	C
ATOM	13829	CB	ALA	U	139	-30.015	84.765	21.207	1	136.01	C
ATOM	13830	C	ALA	U	139	-29.661	83.359	23.285	1	141.06	C
ATOM	13831	O	ALA	U	139	-28.529	82.918	23.535	1	134.53	O
ATOM	13832	N	ALA	U	140	-30.787	82.645	23.442	1	131.18	N
ATOM	13833	CA	ALA	U	140	-30.874	81.426	24.271	1	117.58	C
ATOM	13834	CB	ALA	U	140	-32.198	81.43	25.01	1	100.39	C
ATOM	13835	C	ALA	U	140	-30.673	80.078	23.527	1	126.66	C
ATOM	13836	O	ALA	U	140	-30.563	80.04	22.294	1	118.7	O
ATOM	13837	N	LEU	U	141	-30.612	78.988	24.306	1	135.48	N
ATOM	13838	CA	LEU	U	141	-30.425	77.607	23.8	1	139.35	C
ATOM	13839	CB	LEU	U	141	-28.93	77.267	23.778	1	147.14	C
ATOM	13840	CG	LEU	U	141	-28.239	77.111	25.149	1	153.33	C
ATOM	13841	CD1	LEU	U	141	-27.475	75.793	25.261	1	149.31	C
ATOM	13842	CD2	LEU	U	141	-27.332	78.298	25.441	1	156.71	C
ATOM	13843	C	LEU	U	141	-31.218	76.594	24.667	1	136.2	C
ATOM	13844	O	LEU	U	141	-32.216	76.975	25.249	1	140.42	O
ATOM	13845	N	GLY	U	142	-30.81	75.319	24.723	1	142.36	N
ATOM	13846	CA	GLY	U	142	-31.313	74.358	25.736	1	149.17	C
ATOM	13847	C	GLY	U	142	-31.667	72.928	25.314	1	151.22	C
ATOM	13848	O	GLY	U	142	-31.376	72.495	24.192	1	141.94	O
ATOM	13849	N	CYS	U	143	-32.302	72.203	26.246	1	149.87	N
ATOM	13850	CA	CYS	U	143	-32.703	70.794	26.079	1	146.22	C
ATOM	13851	CB	CYS	U	143	-31.818	69.883	26.929	1	145.93	C
ATOM	13852	SG	CYS	U	143	-30.053	70.145	26.697	1	161.02	S
ATOM	13853	C	CYS	U	143	-34.155	70.564	26.504	1	141.65	C
ATOM	13854	O	CYS	U	143	-34.634	71.213	27.434	1	148.24	O
ATOM	13855	N	LEU	U	144	-34.828	69.615	25.842	1	132.38	N
ATOM	13856	CA	LEU	U	144	-36.231	69.257	26.124	1	115.79	C
ATOM	13857	CB	LEU	U	144	-37.109	69.513	24.89	1	113.56	C

ATOM	13858	CG	LEU	U	144	-38.601	69.131	24.926	1	112.94	C
ATOM	13859	CD1	LEU	U	144	-39.263	69.628	26.204	1	118.24	C
ATOM	13860	CD2	LEU	U	144	-39.334	69.67	23.7	1	108.36	C
ATOM	13861	C	LEU	U	144	-36.351	67.793	26.557	1	114.34	C
ATOM	13862	O	LEU	U	144	-36.427	66.896	25.716	1	98.21	O
ATOM	13863	N	VAL	U	145	-36.396	67.574	27.873	1	124.86	N
ATOM	13864	CA	VAL	U	145	-36.468	66.229	28.471	1	129.34	C
ATOM	13865	CB	VAL	U	145	-35.918	66.214	29.921	1	139.9	C
ATOM	13866	CG1	VAL	U	145	-35.797	64.794	30.45	1	142.44	C
ATOM	13867	CG2	VAL	U	145	-34.56	66.914	29.993	1	147.55	C
ATOM	13868	C	VAL	U	145	-37.925	65.76	28.461	1	120	C
ATOM	13869	O	VAL	U	145	-38.802	66.459	28.964	1	116.75	O
ATOM	13870	N	LYS	U	146	-38.172	64.574	27.902	1	113.76	N
ATOM	13871	CA	LYS	U	146	-39.535	64.105	27.622	1	107.61	C
ATOM	13872	CB	LYS	U	146	-39.859	64.307	26.13	1	105.56	C
ATOM	13873	CG	LYS	U	146	-41.304	64.671	25.831	1	105.75	C
ATOM	13874	CD	LYS	U	146	-41.663	64.423	24.37	1	110.36	C
ATOM	13875	CE	LYS	U	146	-43.133	64.722	24.09	1	113.14	C
ATOM	13876	NZ	LYS	U	146	-43.429	66.167	23.872	1	109.49	N
ATOM	13877	C	LYS	U	146	-39.67	62.628	28.008	1	105.1	C
ATOM	13878	O	LYS	U	146	-38.814	61.831	27.634	1	104.76	O
ATOM	13879	N	ASP	U	147	-40.732	62.307	28.767	1	106.9	N
ATOM	13880	CA	ASP	U	147	-41.152	60.94	29.203	1	108.5	C
ATOM	13881	CB	ASP	U	147	-42.356	60.459	28.336	1	114.93	C
ATOM	13882	CG	ASP	U	147	-42.481	61.163	26.983	1	118.29	C
ATOM	13883	OD1	ASP	U	147	-41.616	60.947	26.106	1	123.26	O
ATOM	13884	OD2	ASP	U	147	-43.49	61.892	26.79	1	114.81	O
ATOM	13885	C	ASP	U	147	-40.112	59.784	29.333	1	115.96	C
ATOM	13886	O	ASP	U	147	-39.809	59.153	28.313	1	131.77	O
ATOM	13887	N	TYR	U	148	-39.549	59.453	30.514	1	109.83	N
ATOM	13888	CA	TYR	U	148	-39.51	60.205	31.8	1	107.8	C
ATOM	13889	CB	TYR	U	148	-39.076	61.678	31.605	1	112.36	C
ATOM	13890	CG	TYR	U	148	-39.092	62.613	32.804	1	103.66	C
ATOM	13891	CD1	TYR	U	148	-38.75	62.184	34.082	1	98.9	C
ATOM	13892	CE1	TYR	U	148	-38.776	63.067	35.156	1	108.9	C
ATOM	13893	CZ	TYR	U	148	-39.118	64.412	34.942	1	117.14	C
ATOM	13894	OH	TYR	U	148	-39.147	65.331	35.974	1	122.85	O
ATOM	13895	CE2	TYR	U	148	-39.434	64.855	33.675	1	111.92	C
ATOM	13896	CD2	TYR	U	148	-39.404	63.965	32.622	1	107.02	C
ATOM	13897	C	TYR	U	148	-40.723	60.002	32.723	1	109.06	C
ATOM	13898	O	TYR	U	148	-41.708	60.739	32.668	1	96.08	O
ATOM	13899	N	PHE	U	149	-40.602	58.929	33.524	1	113.13	N
ATOM	13900	CA	PHE	U	149	-41.399	58.625	34.737	1	113.04	C
ATOM	13901	CB	PHE	U	149	-42.784	58.059	34.382	1	117.23	C

ATOM	13902	CG	PHE	U	149	-43.601	57.574	35.578	1	125.45	C
ATOM	13903	CD1	PHE	U	149	-43.409	56.291	36.119	1	122.24	C
ATOM	13904	CE1	PHE	U	149	-44.161	55.846	37.199	1	111.35	C
ATOM	13905	CZ	PHE	U	149	-45.129	56.669	37.75	1	116.88	C
ATOM	13906	CE2	PHE	U	149	-45.342	57.94	37.229	1	121.8	C
ATOM	13907	CD2	PHE	U	149	-44.588	58.387	36.149	1	127.35	C
ATOM	13908	C	PHE	U	149	-40.612	57.546	35.491	1	111.94	C
ATOM	13909	O	PHE	U	149	-40.084	56.656	34.832	1	112.81	O
ATOM	13910	N	PRO	U	150	-40.538	57.562	36.83	1	119.03	N
ATOM	13911	CA	PRO	U	150	-41.147	58.557	37.713	1	118.86	C
ATOM	13912	CB	PRO	U	150	-41.252	57.8	39.035	1	118.9	C
ATOM	13913	CG	PRO	U	150	-40.024	56.949	39.039	1	116.04	C
ATOM	13914	CD	PRO	U	150	-39.831	56.521	37.605	1	117.6	C
ATOM	13915	C	PRO	U	150	-40.241	59.75	37.923	1	118.65	C
ATOM	13916	O	PRO	U	150	-39.059	59.693	37.58	1	121.81	O
ATOM	13917	N	GLU	U	151	-40.788	60.803	38.524	1	114.95	N
ATOM	13918	CA	GLU	U	151	-39.974	61.898	39.032	1	112.8	C
ATOM	13919	CB	GLU	U	151	-40.87	62.979	39.632	1	114.36	C
ATOM	13920	CG	GLU	U	151	-41.624	63.834	38.615	1	120.73	C
ATOM	13921	CD	GLU	U	151	-41.243	65.321	38.663	1	137.44	C
ATOM	13922	OE1	GLU	U	151	-40.095	65.669	38.297	1	148.55	O
ATOM	13923	OE2	GLU	U	151	-42.096	66.154	39.064	1	130.63	O
ATOM	13924	C	GLU	U	151	-38.995	61.338	40.095	1	116.1	C
ATOM	13925	O	GLU	U	151	-39.275	60.272	40.671	1	105.97	O
ATOM	13926	N	PRO	U	152	-37.852	61.995	40.353	1	129.69	N
ATOM	13927	CA	PRO	U	152	-37.407	63.254	39.72	1	137.96	C
ATOM	13928	CB	PRO	U	152	-37.097	64.134	40.933	1	144.13	C
ATOM	13929	CG	PRO	U	152	-36.647	63.17	41.99	1	144.59	C
ATOM	13930	CD	PRO	U	152	-37.196	61.801	41.661	1	139.15	C
ATOM	13931	C	PRO	U	152	-36.146	63.078	38.851	1	145.19	C
ATOM	13932	O	PRO	U	152	-35.637	61.953	38.736	1	141.91	O
ATOM	13933	N	VAL	U	153	-35.643	64.179	38.273	1	152.45	N
ATOM	13934	CA	VAL	U	153	-34.487	64.134	37.347	1	168.01	C
ATOM	13935	CB	VAL	U	153	-34.987	64.075	35.874	1	168.37	C
ATOM	13936	CG1	VAL	U	153	-35.377	65.456	35.342	1	162.27	C
ATOM	13937	CG2	VAL	U	153	-33.955	63.403	34.973	1	170.67	C
ATOM	13938	C	VAL	U	153	-33.44	65.271	37.54	1	178.09	C
ATOM	13939	O	VAL	U	153	-33.803	66.424	37.811	1	181.37	O
ATOM	13940	N	THR	U	154	-32.151	64.922	37.384	1	172.77	N
ATOM	13941	CA	THR	U	154	-31.006	65.852	37.505	1	149.12	C
ATOM	13942	CB	THR	U	154	-29.757	65.13	38.068	1	149.03	C
ATOM	13943	OG1	THR	U	154	-30.111	64.374	39.234	1	151.6	O
ATOM	13944	CG2	THR	U	154	-28.639	66.126	38.418	1	146.61	C
ATOM	13945	C	THR	U	154	-30.616	66.396	36.136	1	135.2	C

ATOM	13946	O	THR	U	154	-30.404	65.613	35.219	1	122.33	O
ATOM	13947	N	VAL	U	155	-30.511	67.72	36.005	1	136.7	N
ATOM	13948	CA	VAL	U	155	-30.132	68.377	34.733	1	143.98	C
ATOM	13949	CB	VAL	U	155	-31.362	69.051	34.052	1	145.02	C
ATOM	13950	CG1	VAL	U	155	-30.968	69.918	32.852	1	141.2	C
ATOM	13951	CG2	VAL	U	155	-32.371	67.993	33.616	1	147.75	C
ATOM	13952	C	VAL	U	155	-28.997	69.383	34.992	1	149.79	C
ATOM	13953	O	VAL	U	155	-29.245	70.564	35.25	1	144.73	O
ATOM	13954	N	SER	U	156	-27.757	68.888	34.942	1	161.23	N
ATOM	13955	CA	SER	U	156	-26.554	69.712	35.136	1	167.94	C
ATOM	13956	CB	SER	U	156	-25.525	68.989	36.029	1	164.43	C
ATOM	13957	OG	SER	U	156	-25.212	67.688	35.559	1	156.67	O
ATOM	13958	C	SER	U	156	-25.944	70.1	33.781	1	172.22	C
ATOM	13959	O	SER	U	156	-25.917	69.29	32.852	1	158.01	O
ATOM	13960	N	TRP	U	157	-25.451	71.338	33.689	1	179.98	N
ATOM	13961	CA	TRP	U	157	-24.988	71.929	32.422	1	176.69	C
ATOM	13962	CB	TRP	U	157	-25.521	73.358	32.277	1	173.38	C
ATOM	13963	CG	TRP	U	157	-26.837	73.435	31.576	1	174.88	C
ATOM	13964	CD1	TRP	U	157	-28.053	73.68	32.136	1	178.21	C
ATOM	13965	NE1	TRP	U	157	-29.032	73.679	31.173	1	174.89	N
ATOM	13966	CE2	TRP	U	157	-28.452	73.422	29.96	1	181.07	C
ATOM	13967	CD2	TRP	U	157	-27.067	73.262	30.18	1	177.52	C
ATOM	13968	CE3	TRP	U	157	-26.235	72.989	29.088	1	183.72	C
ATOM	13969	CZ3	TRP	U	157	-26.806	72.887	27.823	1	191.58	C
ATOM	13970	CH2	TRP	U	157	-28.191	73.052	27.636	1	191.3	C
ATOM	13971	CZ2	TRP	U	157	-29.027	73.32	28.69	1	189.58	C
ATOM	13972	C	TRP	U	157	-23.46	71.924	32.272	1	174.57	C
ATOM	13973	O	TRP	U	157	-22.741	72.447	33.132	1	160.72	O
ATOM	13974	N	ASN	U	158	-22.998	71.354	31.151	1	172.5	N
ATOM	13975	CA	ASN	U	158	-21.575	71.191	30.804	1	164.23	C
ATOM	13976	CB	ASN	U	158	-20.902	72.564	30.565	1	162.56	C
ATOM	13977	CG	ASN	U	158	-21.215	73.147	29.201	1	159.66	C
ATOM	13978	OD1	ASN	U	158	-20.892	72.552	28.174	1	164.38	O
ATOM	13979	ND2	ASN	U	158	-21.824	74.329	29.184	1	150.61	N
ATOM	13980	C	ASN	U	158	-20.792	70.337	31.82	1	161.26	C
ATOM	13981	O	ASN	U	158	-19.649	70.645	32.153	1	170.5	O
ATOM	13982	N	SER	U	159	-21.407	69.245	32.278	1	153.86	N
ATOM	13983	CA	SER	U	159	-20.85	68.39	33.35	1	144.1	C
ATOM	13984	CB	SER	U	159	-19.648	67.569	32.839	1	131.06	C
ATOM	13985	OG	SER	U	159	-20.083	66.301	32.386	1	125.74	O
ATOM	13986	C	SER	U	159	-20.53	69.155	34.656	1	148.96	C
ATOM	13987	O	SER	U	159	-19.495	68.938	35.295	1	144.16	O
ATOM	13988	N	GLY	U	160	-21.448	70.046	35.034	1	156.24	N
ATOM	13989	CA	GLY	U	160	-21.398	70.769	36.308	1	155.93	C

ATOM	13990	C	GLY	U	160	-20.631	72.078	36.303	1	160.56	C
ATOM	13991	O	GLY	U	160	-20.26	72.564	37.376	1	155.89	O
ATOM	13992	N	ALA	U	161	-20.431	72.664	35.116	1	170.75	N
ATOM	13993	CA	ALA	U	161	-19.513	73.807	34.922	1	180.91	C
ATOM	13994	CB	ALA	U	161	-18.498	73.484	33.835	1	188.63	C
ATOM	13995	C	ALA	U	161	-20.229	75.122	34.597	1	175.71	C
ATOM	13996	O	ALA	U	161	-20.05	76.115	35.306	1	162.07	O
ATOM	13997	N	LEU	U	162	-21.007	75.135	33.514	1	181.21	N
ATOM	13998	CA	LEU	U	162	-21.872	76.278	33.197	1	192.04	C
ATOM	13999	CB	LEU	U	162	-22.411	76.212	31.755	1	185.94	C
ATOM	14000	CG	LEU	U	162	-23.5	77.229	31.342	1	181.33	C
ATOM	14001	CD1	LEU	U	162	-23.189	78.662	31.768	1	176.1	C
ATOM	14002	CD2	LEU	U	162	-23.741	77.174	29.842	1	179.02	C
ATOM	14003	C	LEU	U	162	-23.018	76.278	34.21	1	195.74	C
ATOM	14004	O	LEU	U	162	-23.857	75.372	34.193	1	205.99	O
ATOM	14005	N	THR	U	163	-23.028	77.279	35.097	1	179	N
ATOM	14006	CA	THR	U	163	-23.979	77.336	36.217	1	165.62	C
ATOM	14007	CB	THR	U	163	-23.242	77.248	37.581	1	157.48	C
ATOM	14008	OG1	THR	U	163	-22.209	78.239	37.639	1	165.27	O
ATOM	14009	CG2	THR	U	163	-22.631	75.857	37.793	1	145.63	C
ATOM	14010	C	THR	U	163	-24.918	78.556	36.238	1	157.71	C
ATOM	14011	O	THR	U	163	-25.966	78.49	36.882	1	155.05	O
ATOM	14012	N	SER	U	164	-24.577	79.651	35.552	1	149.8	N
ATOM	14013	CA	SER	U	164	-25.367	80.89	35.661	1	152.52	C
ATOM	14014	CB	SER	U	164	-24.467	82.098	35.906	1	149.83	C
ATOM	14015	OG	SER	U	164	-25.247	83.231	36.264	1	139.43	O
ATOM	14016	C	SER	U	164	-26.24	81.145	34.44	1	160.52	C
ATOM	14017	O	SER	U	164	-26.039	80.538	33.384	1	175.09	O
ATOM	14018	N	GLY	U	165	-27.209	82.052	34.609	1	154.77	N
ATOM	14019	CA	GLY	U	165	-28.217	82.36	33.582	1	149.57	C
ATOM	14020	C	GLY	U	165	-29.212	81.244	33.268	1	147.81	C
ATOM	14021	O	GLY	U	165	-30.002	81.37	32.329	1	135.2	O
ATOM	14022	N	VAL	U	166	-29.208	80.184	34.085	1	157.28	N
ATOM	14023	CA	VAL	U	166	-29.913	78.923	33.807	1	145.82	C
ATOM	14024	CB	VAL	U	166	-29.083	77.687	34.247	1	138.51	C
ATOM	14025	CG1	VAL	U	166	-29.667	76.402	33.664	1	133.89	C
ATOM	14026	CG2	VAL	U	166	-27.621	77.844	33.85	1	136	C
ATOM	14027	C	VAL	U	166	-31.242	78.865	34.558	1	132.86	C
ATOM	14028	O	VAL	U	166	-31.324	79.22	35.739	1	128.82	O
ATOM	14029	N	HIS	U	167	-32.274	78.403	33.866	1	120.8	N
ATOM	14030	CA	HIS	U	167	-33.565	78.197	34.471	1	123.79	C
ATOM	14031	CB	HIS	U	167	-34.407	79.454	34.255	1	129.83	C
ATOM	14032	CG	HIS	U	167	-33.828	80.648	34.944	1	148.4	C
ATOM	14033	ND1	HIS	U	167	-34.02	80.888	36.287	1	168.07	N

ATOM	14034	CE1	HIS	U	167	-33.353	81.97	36.641	1	173.98	C
ATOM	14035	NE2	HIS	U	167	-32.707	82.423	35.583	1	175.68	N
ATOM	14036	CD2	HIS	U	167	-32.983	81.611	34.508	1	164.38	C
ATOM	14037	C	HIS	U	167	-34.179	76.907	33.917	1	131.57	C
ATOM	14038	O	HIS	U	167	-34.532	76.839	32.741	1	136.29	O
ATOM	14039	N	THR	U	168	-34.238	75.875	34.773	1	129.07	N
ATOM	14040	CA	THR	U	168	-34.865	74.568	34.475	1	119.71	C
ATOM	14041	CB	THR	U	168	-34.455	73.515	35.54	1	116.4	C
ATOM	14042	OG1	THR	U	168	-33.082	73.705	35.899	1	109.77	O
ATOM	14043	CG2	THR	U	168	-34.634	72.092	35.022	1	119.43	C
ATOM	14044	C	THR	U	168	-36.392	74.777	34.396	1	119.44	C
ATOM	14045	O	THR	U	168	-36.802	75.734	33.769	1	116.57	O
ATOM	14046	N	PHE	U	169	-37.232	73.921	34.992	1	123.68	N
ATOM	14047	CA	PHE	U	169	-38.681	74.196	35.125	1	125.73	C
ATOM	14048	CB	PHE	U	169	-39.412	74.204	33.751	1	120.85	C
ATOM	14049	CG	PHE	U	169	-39.264	75.495	32.988	1	117.37	C
ATOM	14050	CD1	PHE	U	169	-39.713	76.707	33.522	1	119.8	C
ATOM	14051	CE1	PHE	U	169	-39.549	77.896	32.826	1	106.76	C
ATOM	14052	CZ	PHE	U	169	-38.917	77.886	31.603	1	105.15	C
ATOM	14053	CE2	PHE	U	169	-38.47	76.694	31.063	1	111.74	C
ATOM	14054	CD2	PHE	U	169	-38.646	75.511	31.746	1	112.39	C
ATOM	14055	C	PHE	U	169	-39.377	73.198	36.063	1	131.21	C
ATOM	14056	O	PHE	U	169	-38.788	72.171	36.471	1	109.4	O
ATOM	14057	N	PRO	U	170	-40.637	73.505	36.423	1	137.71	N
ATOM	14058	CA	PRO	U	170	-41.429	72.462	37.046	1	141.35	C
ATOM	14059	CB	PRO	U	170	-42.692	73.199	37.526	1	145.02	C
ATOM	14060	CG	PRO	U	170	-42.752	74.456	36.739	1	136.28	C
ATOM	14061	CD	PRO	U	170	-41.337	74.803	36.4	1	130.83	C
ATOM	14062	C	PRO	U	170	-41.751	71.413	35.989	1	134.95	C
ATOM	14063	O	PRO	U	170	-42.08	71.775	34.851	1	122.95	O
ATOM	14064	N	ALA	U	171	-41.612	70.139	36.358	1	127.72	N
ATOM	14065	CA	ALA	U	171	-41.983	69.024	35.482	1	119.25	C
ATOM	14066	CB	ALA	U	171	-41.459	67.709	36.047	1	110.21	C
ATOM	14067	C	ALA	U	171	-43.511	68.969	35.289	1	111.64	C
ATOM	14068	O	ALA	U	171	-44.264	69.129	36.251	1	108.74	O
ATOM	14069	N	VAL	U	172	-43.944	68.779	34.039	1	105.62	N
ATOM	14070	CA	VAL	U	172	-45.364	68.667	33.671	1	104.88	C
ATOM	14071	CB	VAL	U	172	-45.627	69.24	32.26	1	102.43	C
ATOM	14072	CG1	VAL	U	172	-47.023	68.879	31.735	1	102.4	C
ATOM	14073	CG2	VAL	U	172	-45.418	70.742	32.264	1	103.17	C
ATOM	14074	C	VAL	U	172	-45.722	67.202	33.614	1	112.75	C
ATOM	14075	O	VAL	U	172	-44.912	66.405	33.159	1	118.91	O
ATOM	14076	N	LEU	U	173	-46.938	66.854	34.04	1	114.8	N
ATOM	14077	CA	LEU	U	173	-47.473	65.514	33.809	1	104.53	C

ATOM	14078	CB	LEU	U	173	-48.361	65.063	34.967	1	97.86	C
ATOM	14079	CG	LEU	U	173	-48.732	63.577	34.963	1	96.92	C
ATOM	14080	CD1	LEU	U	173	-47.564	62.71	35.413	1	97.86	C
ATOM	14081	CD2	LEU	U	173	-49.953	63.308	35.841	1	97.16	C
ATOM	14082	C	LEU	U	173	-48.231	65.508	32.481	1	102.08	C
ATOM	14083	O	LEU	U	173	-49.381	65.926	32.4	1	90.24	O
ATOM	14084	N	GLN	U	174	-47.546	65.063	31.432	1	109.27	N
ATOM	14085	CA	GLN	U	174	-48.166	64.841	30.134	1	113.55	C
ATOM	14086	CB	GLN	U	174	-47.075	64.533	29.077	1	120.78	C
ATOM	14087	CG	GLN	U	174	-47.552	64.229	27.654	1	129.96	C
ATOM	14088	CD	GLN	U	174	-48.317	65.361	26.961	1	136.5	C
ATOM	14089	OE1	GLN	U	174	-49.006	65.13	25.962	1	141.88	O
ATOM	14090	NE2	GLN	U	174	-48.191	66.583	27.47	1	137.56	N
ATOM	14091	C	GLN	U	174	-49.181	63.693	30.292	1	105.53	C
ATOM	14092	O	GLN	U	174	-48.877	62.664	30.917	1	105.53	O
ATOM	14093	N	SER	U	175	-50.394	63.902	29.776	1	95.86	N
ATOM	14094	CA	SER	U	175	-51.422	62.856	29.733	1	97.84	C
ATOM	14095	CB	SER	U	175	-52.718	63.404	29.154	1	102.4	C
ATOM	14096	OG	SER	U	175	-52.46	64.059	27.922	1	104.71	O
ATOM	14097	C	SER	U	175	-50.92	61.726	28.855	1	94.08	C
ATOM	14098	O	SER	U	175	-50.749	61.907	27.656	1	105.1	O
ATOM	14099	N	SER	U	176	-50.753	60.558	29.458	1	86.65	N
ATOM	14100	CA	SER	U	176	-49.801	59.509	29.028	1	88.54	C
ATOM	14101	CB	SER	U	176	-48.58	60.018	28.236	1	89.07	C
ATOM	14102	OG	SER	U	176	-47.61	60.604	29.089	1	87.44	O
ATOM	14103	C	SER	U	176	-49.253	58.904	30.3	1	89.25	C
ATOM	14104	O	SER	U	176	-48.965	57.699	30.375	1	87.5	O
ATOM	14105	N	GLY	U	177	-49.064	59.787	31.279	1	83.35	N
ATOM	14106	CA	GLY	U	177	-48.657	59.403	32.605	1	83.49	C
ATOM	14107	C	GLY	U	177	-47.172	59.451	32.751	1	80.55	C
ATOM	14108	O	GLY	U	177	-46.608	58.737	33.595	1	76.12	O
ATOM	14109	N	LEU	U	178	-46.544	60.293	31.931	1	84.19	N
ATOM	14110	CA	LEU	U	178	-45.113	60.506	32.001	1	95.43	C
ATOM	14111	CB	LEU	U	178	-44.389	59.96	30.771	1	102.43	C
ATOM	14112	CG	LEU	U	178	-44.376	58.516	30.247	1	102.07	C
ATOM	14113	CD1	LEU	U	178	-44.089	57.496	31.344	1	102.61	C
ATOM	14114	CD2	LEU	U	178	-45.667	58.221	29.486	1	105.47	C
ATOM	14115	C	LEU	U	178	-44.824	61.992	32.094	1	92.2	C
ATOM	14116	O	LEU	U	178	-45.469	62.821	31.433	1	75.59	O
ATOM	14117	N	TYR	U	179	-43.808	62.303	32.887	1	98.87	N
ATOM	14118	CA	TYR	U	179	-43.386	63.672	33.092	1	112.12	C
ATOM	14119	CB	TYR	U	179	-42.654	63.793	34.423	1	112.78	C
ATOM	14120	CG	TYR	U	179	-43.5	63.371	35.617	1	111.91	C
ATOM	14121	CD1	TYR	U	179	-44.465	64.228	36.154	1	109.78	C

ATOM	14122	CE1	TYR	U	179	-45.221	63.857	37.251	1	110.44	C
ATOM	14123	CZ	TYR	U	179	-45.036	62.604	37.822	1	119.5	C
ATOM	14124	OH	TYR	U	179	-45.793	62.226	38.912	1	129.94	O
ATOM	14125	CE2	TYR	U	179	-44.09	61.736	37.306	1	116.63	C
ATOM	14126	CD2	TYR	U	179	-43.332	62.12	36.211	1	113.04	C
ATOM	14127	C	TYR	U	179	-42.538	64.146	31.9	1	118.84	C
ATOM	14128	O	TYR	U	179	-41.993	63.322	31.159	1	118.52	O
ATOM	14129	N	SER	U	180	-42.455	65.465	31.709	1	120.49	N
ATOM	14130	CA	SER	U	180	-41.945	66.061	30.464	1	122.02	C
ATOM	14131	CB	SER	U	180	-43.047	66.059	29.363	1	133.8	C
ATOM	14132	OG	SER	U	180	-43.771	64.818	29.235	1	127.43	O
ATOM	14133	C	SER	U	180	-41.461	67.498	30.747	1	119.51	C
ATOM	14134	O	SER	U	180	-42.262	68.423	30.787	1	114.33	O
ATOM	14135	N	LEU	U	181	-40.149	67.672	30.918	1	133.67	N
ATOM	14136	CA	LEU	U	181	-39.553	68.89	31.52	1	139.59	C
ATOM	14137	CB	LEU	U	181	-38.951	68.488	32.877	1	143.57	C
ATOM	14138	CG	LEU	U	181	-38.023	69.423	33.675	1	143.25	C
ATOM	14139	CD1	LEU	U	181	-38.347	69.359	35.169	1	142.45	C
ATOM	14140	CD2	LEU	U	181	-36.547	69.116	33.423	1	137.62	C
ATOM	14141	C	LEU	U	181	-38.485	69.592	30.642	1	141.29	C
ATOM	14142	O	LEU	U	181	-37.513	68.964	30.226	1	145.16	O
ATOM	14143	N	SER	U	182	-38.656	70.895	30.395	1	138.31	N
ATOM	14144	CA	SER	U	182	-37.724	71.686	29.562	1	136.66	C
ATOM	14145	CB	SER	U	182	-38.493	72.772	28.797	1	135.73	C
ATOM	14146	OG	SER	U	182	-39.669	72.244	28.204	1	136.51	O
ATOM	14147	C	SER	U	182	-36.622	72.354	30.394	1	135.42	C
ATOM	14148	O	SER	U	182	-36.892	72.852	31.483	1	142.22	O
ATOM	14149	N	SER	U	183	-35.387	72.356	29.889	1	137.88	N
ATOM	14150	CA	SER	U	183	-34.278	73.126	30.498	1	143.36	C
ATOM	14151	CB	SER	U	183	-33.119	72.213	30.937	1	149.72	C
ATOM	14152	OG	SER	U	183	-32.111	72.944	31.634	1	141.61	O
ATOM	14153	C	SER	U	183	-33.779	74.175	29.504	1	132.94	C
ATOM	14154	O	SER	U	183	-33.864	73.979	28.287	1	119.02	O
ATOM	14155	N	VAL	U	184	-33.263	75.286	30.028	1	124.35	N
ATOM	14156	CA	VAL	U	184	-32.833	76.4	29.185	1	120.07	C
ATOM	14157	CB	VAL	U	184	-34.041	77.194	28.598	1	114.52	C
ATOM	14158	CG1	VAL	U	184	-34.925	77.772	29.695	1	113.49	C
ATOM	14159	CG2	VAL	U	184	-33.565	78.289	27.652	1	114.11	C
ATOM	14160	C	VAL	U	184	-31.896	77.343	29.93	1	120.37	C
ATOM	14161	O	VAL	U	184	-32.146	77.692	31.081	1	108.54	O
ATOM	14162	N	VAL	U	185	-30.83	77.749	29.235	1	137.47	N
ATOM	14163	CA	VAL	U	185	-29.855	78.737	29.716	1	147.5	C
ATOM	14164	CB	VAL	U	185	-28.485	78.085	30.08	1	161.76	C
ATOM	14165	CG1	VAL	U	185	-28.041	77.066	29.03	1	164.08	C

ATOM	14166	CG2	VAL	U	185	-27.401	79.14	30.319	1	165.64	C
ATOM	14167	C	VAL	U	185	-29.688	79.859	28.674	1	138.86	C
ATOM	14168	O	VAL	U	185	-29.632	79.603	27.463	1	132.29	O
ATOM	14169	N	THR	U	186	-29.613	81.093	29.175	1	129.88	N
ATOM	14170	CA	THR	U	186	-29.494	82.298	28.36	1	116.83	C
ATOM	14171	CB	THR	U	186	-30.364	83.441	28.965	1	107.65	C
ATOM	14172	OG1	THR	U	186	-30.974	84.192	27.916	1	104.49	O
ATOM	14173	CG2	THR	U	186	-29.585	84.387	29.903	1	109.56	C
ATOM	14174	C	THR	U	186	-28.001	82.644	28.263	1	127.54	C
ATOM	14175	O	THR	U	186	-27.264	82.496	29.249	1	134.13	O
ATOM	14176	N	VAL	U	187	-27.554	83.062	27.074	1	136.43	N
ATOM	14177	CA	VAL	U	187	-26.135	83.4	26.817	1	132.67	C
ATOM	14178	CB	VAL	U	187	-25.328	82.173	26.287	1	120.69	C
ATOM	14179	CG1	VAL	U	187	-25.185	81.104	27.372	1	120.11	C
ATOM	14180	CG2	VAL	U	187	-25.954	81.589	25.024	1	111.84	C
ATOM	14181	C	VAL	U	187	-25.984	84.575	25.832	1	140.02	C
ATOM	14182	O	VAL	U	187	-26.955	84.958	25.164	1	136.5	O
ATOM	14183	N	PRO	U	188	-24.766	85.159	25.741	1	150.63	N
ATOM	14184	CA	PRO	U	188	-24.439	86.092	24.641	1	154.64	C
ATOM	14185	CB	PRO	U	188	-23.006	86.545	24.981	1	157.02	C
ATOM	14186	CG	PRO	U	188	-22.492	85.557	25.979	1	155.45	C
ATOM	14187	CD	PRO	U	188	-23.698	85.146	26.761	1	149.82	C
ATOM	14188	C	PRO	U	188	-24.485	85.446	23.234	1	158.26	C
ATOM	14189	O	PRO	U	188	-24.78	84.256	23.113	1	167.88	O
ATOM	14190	N	SER	U	189	-24.194	86.225	22.189	1	158.75	N
ATOM	14191	CA	SER	U	189	-24.04	85.689	20.816	1	165.08	C
ATOM	14192	CB	SER	U	189	-24.104	86.815	19.762	1	161.72	C
ATOM	14193	OG	SER	U	189	-22.922	87.615	19.728	1	147.49	O
ATOM	14194	C	SER	U	189	-22.725	84.895	20.68	1	173.54	C
ATOM	14195	O	SER	U	189	-22.679	83.813	20.073	1	163.64	O
ATOM	14196	N	SER	U	190	-21.665	85.455	21.263	1	180.48	N
ATOM	14197	CA	SER	U	190	-20.349	84.821	21.337	1	172.49	C
ATOM	14198	CB	SER	U	190	-19.352	85.783	22.002	1	168.26	C
ATOM	14199	OG	SER	U	190	-19.742	86.095	23.335	1	152.5	O
ATOM	14200	C	SER	U	190	-20.365	83.504	22.113	1	174.16	C
ATOM	14201	O	SER	U	190	-21.369	83.14	22.735	1	155.9	O
ATOM	14202	N	SER	U	191	-19.234	82.803	22.049	1	180.72	N
ATOM	14203	CA	SER	U	191	-19.012	81.53	22.744	1	183.45	C
ATOM	14204	CB	SER	U	191	-19.456	81.603	24.218	1	186.58	C
ATOM	14205	OG	SER	U	191	-18.837	80.59	24.992	1	193.9	O
ATOM	14206	C	SER	U	191	-19.668	80.326	22.055	1	184.71	C
ATOM	14207	O	SER	U	191	-19.464	79.196	22.5	1	182.48	O
ATOM	14208	N	LEU	U	192	-20.411	80.552	20.965	1	181.35	N
ATOM	14209	CA	LEU	U	192	-21.248	79.513	20.364	1	176.68	C

ATOM	14210	CB	LEU	U	192	-22.348	80.146	19.497	1	169.83	C
ATOM	14211	CG	LEU	U	192	-23.512	79.226	19.081	1	165.85	C
ATOM	14212	CD1	LEU	U	192	-24.741	80.047	18.704	1	158.67	C
ATOM	14213	CD2	LEU	U	192	-23.14	78.259	17.956	1	163.42	C
ATOM	14214	C	LEU	U	192	-20.406	78.532	19.547	1	181.93	C
ATOM	14215	O	LEU	U	192	-20.427	77.325	19.805	1	180.64	O
ATOM	14216	N	GLY	U	193	-19.678	79.059	18.562	1	184.43	N
ATOM	14217	CA	GLY	U	193	-18.831	78.246	17.685	1	182.76	C
ATOM	14218	C	GLY	U	193	-17.625	77.673	18.403	1	182.71	C
ATOM	14219	O	GLY	U	193	-17.249	76.519	18.177	1	171.58	O
ATOM	14220	N	THR	U	194	-17.013	78.498	19.253	1	193.12	N
ATOM	14221	CA	THR	U	194	-15.917	78.057	20.134	1	200.38	C
ATOM	14222	CB	THR	U	194	-15.07	79.233	20.744	1	209.97	C
ATOM	14223	OG1	THR	U	194	-14.393	78.789	21.931	1	220.14	O
ATOM	14224	CG2	THR	U	194	-15.896	80.501	21.077	1	201.03	C
ATOM	14225	C	THR	U	194	-16.403	77.064	21.207	1	191.75	C
ATOM	14226	O	THR	U	194	-16.349	75.853	20.982	1	188.49	O
ATOM	14227	N	GLN	U	195	-16.901	77.562	22.338	1	181.8	N
ATOM	14228	CA	GLN	U	195	-17.127	76.716	23.51	1	182.8	C
ATOM	14229	CB	GLN	U	195	-17.002	77.532	24.797	1	184.34	C
ATOM	14230	CG	GLN	U	195	-15.548	77.787	25.175	1	188.99	C
ATOM	14231	CD	GLN	U	195	-15.339	79.058	25.98	1	194.66	C
ATOM	14232	OE1	GLN	U	195	-16.164	79.422	26.824	1	205.1	O
ATOM	14233	NE2	GLN	U	195	-14.222	79.736	25.73	1	181.7	N
ATOM	14234	C	GLN	U	195	-18.455	75.957	23.451	1	188.55	C
ATOM	14235	O	GLN	U	195	-19.49	76.504	23.073	1	181.7	O
ATOM	14236	N	THR	U	196	-18.391	74.685	23.84	1	193.86	N
ATOM	14237	CA	THR	U	196	-19.508	73.748	23.737	1	188.75	C
ATOM	14238	CB	THR	U	196	-18.977	72.288	23.712	1	192.95	C
ATOM	14239	OG1	THR	U	196	-18.257	72.066	22.492	1	183.57	O
ATOM	14240	CG2	THR	U	196	-20.102	71.251	23.821	1	200.32	C
ATOM	14241	C	THR	U	196	-20.497	73.94	24.894	1	182.54	C
ATOM	14242	O	THR	U	196	-20.101	74.275	26.01	1	182.86	O
ATOM	14243	N	TYR	U	197	-21.78	73.741	24.595	1	172.83	N
ATOM	14244	CA	TYR	U	197	-22.844	73.641	25.592	1	164.27	C
ATOM	14245	CB	TYR	U	197	-23.963	74.616	25.252	1	164.09	C
ATOM	14246	CG	TYR	U	197	-23.578	76.085	25.29	1	168.26	C
ATOM	14247	CD1	TYR	U	197	-23.322	76.728	26.507	1	163.55	C
ATOM	14248	CE1	TYR	U	197	-22.993	78.079	26.557	1	151.72	C
ATOM	14249	CZ	TYR	U	197	-22.923	78.807	25.378	1	155.19	C
ATOM	14250	OH	TYR	U	197	-22.597	80.141	25.432	1	164.19	O
ATOM	14251	CE2	TYR	U	197	-23.18	78.199	24.155	1	155.32	C
ATOM	14252	CD2	TYR	U	197	-23.509	76.847	24.115	1	163.08	C
ATOM	14253	C	TYR	U	197	-23.403	72.213	25.561	1	169.19	C

ATOM	14254	O	TYR	U	197	-23.6	71.654	24.482	1	175.59	O
ATOM	14255	N	ILE	U	198	-23.659	71.624	26.728	1	176.8	N
ATOM	14256	CA	ILE	U	198	-24.248	70.271	26.803	1	179.38	C
ATOM	14257	CB	ILE	U	198	-23.225	69.156	26.411	1	174.24	C
ATOM	14258	CG1	ILE	U	198	-23.872	67.76	26.448	1	171.06	C
ATOM	14259	CD1	ILE	U	198	-23.352	66.835	25.368	1	176.83	C
ATOM	14260	CG2	ILE	U	198	-21.969	69.192	27.282	1	174.45	C
ATOM	14261	C	ILE	U	198	-24.885	69.999	28.176	1	182.06	C
ATOM	14262	O	ILE	U	198	-24.202	70.012	29.203	1	184.25	O
ATOM	14263	N	CYS	U	199	-26.201	69.778	28.183	1	177.04	N
ATOM	14264	CA	CYS	U	199	-26.926	69.413	29.397	1	165.04	C
ATOM	14265	CB	CYS	U	199	-28.429	69.639	29.213	1	158.01	C
ATOM	14266	SG	CYS	U	199	-29.178	68.718	27.844	1	162.94	S
ATOM	14267	C	CYS	U	199	-26.642	67.944	29.732	1	169.61	C
ATOM	14268	O	CYS	U	199	-26.999	67.044	28.967	1	168.58	O
ATOM	14269	N	ASN	U	200	-25.959	67.715	30.853	1	176.03	N
ATOM	14270	CA	ASN	U	200	-25.717	66.361	31.365	1	182.07	C
ATOM	14271	CB	ASN	U	200	-24.373	66.271	32.124	1	174.99	C
ATOM	14272	CG	ASN	U	200	-23.32	65.466	31.373	1	165.25	C
ATOM	14273	OD1	ASN	U	200	-23.378	64.235	31.326	1	146.16	O
ATOM	14274	ND2	ASN	U	200	-22.339	66.158	30.807	1	167.9	N
ATOM	14275	C	ASN	U	200	-26.88	65.938	32.265	1	194.08	C
ATOM	14276	O	ASN	U	200	-27.028	66.475	33.367	1	218.02	O
ATOM	14277	N	VAL	U	201	-27.701	64.992	31.792	1	188.59	N
ATOM	14278	CA	VAL	U	201	-28.882	64.517	32.548	1	175.18	C
ATOM	14279	CB	VAL	U	201	-30.157	64.398	31.666	1	154.52	C
ATOM	14280	CG1	VAL	U	201	-30.509	65.745	31.043	1	142.16	C
ATOM	14281	CG2	VAL	U	201	-30.02	63.312	30.598	1	152.3	C
ATOM	14282	C	VAL	U	201	-28.623	63.199	33.294	1	180.53	C
ATOM	14283	O	VAL	U	201	-27.656	62.489	32.995	1	176.23	O
ATOM	14284	N	ASN	U	202	-29.487	62.893	34.268	1	180.74	N
ATOM	14285	CA	ASN	U	202	-29.399	61.649	35.045	1	174.28	C
ATOM	14286	CB	ASN	U	202	-28.292	61.759	36.106	1	166.8	C
ATOM	14287	CG	ASN	U	202	-27.971	60.426	36.762	1	168.92	C
ATOM	14288	OD1	ASN	U	202	-28.098	59.369	36.143	1	172.89	O
ATOM	14289	ND2	ASN	U	202	-27.549	60.469	38.022	1	169.52	N
ATOM	14290	C	ASN	U	202	-30.734	61.225	35.701	1	176.65	C
ATOM	14291	O	ASN	U	202	-31.144	61.799	36.714	1	177.18	O
ATOM	14292	N	HIS	U	203	-31.392	60.217	35.115	1	176.8	N
ATOM	14293	CA	HIS	U	203	-32.662	59.66	35.623	1	170.26	C
ATOM	14294	CB	HIS	U	203	-33.607	59.351	34.449	1	169.76	C
ATOM	14295	CG	HIS	U	203	-35.03	59.102	34.853	1	167.59	C
ATOM	14296	ND1	HIS	U	203	-35.544	57.835	35.019	1	157.61	N
ATOM	14297	CE1	HIS	U	203	-36.817	57.915	35.359	1	158.83	C

ATOM	14298	NE2	HIS	U	203	-37.153	59.191	35.412	1	161.8	N
ATOM	14299	CD2	HIS	U	203	-36.054	59.955	35.097	1	168.15	C
ATOM	14300	C	HIS	U	203	-32.379	58.414	36.488	1	162.8	C
ATOM	14301	O	HIS	U	203	-32.617	57.267	36.086	1	149.14	O
ATOM	14302	N	LYS	U	204	-31.854	58.687	37.681	1	154.68	N
ATOM	14303	CA	LYS	U	204	-31.428	57.673	38.675	1	153.06	C
ATOM	14304	CB	LYS	U	204	-31.236	58.266	40.091	1	159.23	C
ATOM	14305	CG	LYS	U	204	-30.56	59.636	40.207	1	166.8	C
ATOM	14306	CD	LYS	U	204	-31.501	60.719	40.746	1	174.42	C
ATOM	14307	CE	LYS	U	204	-32.754	60.954	39.901	1	176.1	C
ATOM	14308	NZ	LYS	U	204	-33.928	61.453	40.663	1	176.35	N
ATOM	14309	C	LYS	U	204	-32.289	56.402	38.799	1	148.45	C
ATOM	14310	O	LYS	U	204	-31.729	55.306	38.872	1	148.57	O
ATOM	14311	N	PRO	U	205	-33.634	56.534	38.851	1	144.9	N
ATOM	14312	CA	PRO	U	205	-34.46	55.309	38.897	1	142.17	C
ATOM	14313	CB	PRO	U	205	-35.894	55.84	39.041	1	138.11	C
ATOM	14314	CG	PRO	U	205	-35.823	57.308	38.829	1	140.94	C
ATOM	14315	CD	PRO	U	205	-34.433	57.735	39.152	1	140.01	C
ATOM	14316	C	PRO	U	205	-34.359	54.372	37.679	1	144.62	C
ATOM	14317	O	PRO	U	205	-34.599	53.167	37.827	1	136.65	O
ATOM	14318	N	SER	U	206	-34.021	54.915	36.506	1	150.25	N
ATOM	14319	CA	SER	U	206	-33.853	54.117	35.277	1	155.7	C
ATOM	14320	CB	SER	U	206	-34.658	54.726	34.121	1	160.53	C
ATOM	14321	OG	SER	U	206	-34.184	56.017	33.767	1	157.26	O
ATOM	14322	C	SER	U	206	-32.402	53.94	34.83	1	156.56	C
ATOM	14323	O	SER	U	206	-32.155	53.186	33.89	1	145.36	O
ATOM	14324	N	ASN	U	207	-31.463	54.633	35.487	1	166.96	N
ATOM	14325	CA	ASN	U	207	-30.025	54.577	35.165	1	171.98	C
ATOM	14326	CB	ASN	U	207	-29.48	53.144	35.36	1	178.14	C
ATOM	14327	CG	ASN	U	207	-27.974	53.101	35.593	1	178.81	C
ATOM	14328	OD1	ASN	U	207	-27.432	53.847	36.413	1	186.88	O
ATOM	14329	ND2	ASN	U	207	-27.293	52.21	34.88	1	174.85	N
ATOM	14330	C	ASN	U	207	-29.722	55.121	33.759	1	167.68	C
ATOM	14331	O	ASN	U	207	-28.906	54.565	33.019	1	169.43	O
ATOM	14332	N	THR	U	208	-30.389	56.222	33.414	1	166.84	N
ATOM	14333	CA	THR	U	208	-30.246	56.882	32.117	1	172.85	C
ATOM	14334	CB	THR	U	208	-31.623	57.305	31.573	1	172.46	C
ATOM	14335	OG1	THR	U	208	-32.506	56.179	31.588	1	179.88	O
ATOM	14336	CG2	THR	U	208	-31.518	57.85	30.153	1	172.88	C
ATOM	14337	C	THR	U	208	-29.382	58.131	32.294	1	183.99	C
ATOM	14338	O	THR	U	208	-29.527	58.835	33.294	1	194.84	O
ATOM	14339	N	LYS	U	209	-28.479	58.385	31.34	1	179.91	N
ATOM	14340	CA	LYS	U	209	-27.602	59.574	31.375	1	161.89	C
ATOM	14341	CB	LYS	U	209	-26.199	59.185	31.866	1	154.02	C

ATOM	14342	CG	LYS	U	209	-25.38	60.342	32.436	1	149.64	C
ATOM	14343	CD	LYS	U	209	-23.878	60.081	32.397	1	150.91	C
ATOM	14344	CE	LYS	U	209	-23.242	60.442	31.053	1	157.64	C
ATOM	14345	NZ	LYS	U	209	-23.483	59.469	29.943	1	157.58	N
ATOM	14346	C	LYS	U	209	-27.474	60.361	30.061	1	158.22	C
ATOM	14347	O	LYS	U	209	-27.382	61.586	30.116	1	153.65	O
ATOM	14348	N	VAL	U	210	-27.499	59.677	28.907	1	164.97	N
ATOM	14349	CA	VAL	U	210	-26.959	60.213	27.622	1	171.89	C
ATOM	14350	CB	VAL	U	210	-27.186	59.23	26.406	1	171.48	C
ATOM	14351	CG1	VAL	U	210	-28.332	59.666	25.485	1	172.77	C
ATOM	14352	CG2	VAL	U	210	-25.904	59.047	25.593	1	156.42	C
ATOM	14353	C	VAL	U	210	-27.398	61.662	27.307	1	161.63	C
ATOM	14354	O	VAL	U	210	-28.538	62.073	27.584	1	145.3	O
ATOM	14355	N	ASP	U	211	-26.471	62.4	26.701	1	146.89	N
ATOM	14356	CA	ASP	U	211	-26.494	63.855	26.672	1	140.39	C
ATOM	14357	CB	ASP	U	211	-25.138	64.347	27.141	1	126.63	C
ATOM	14358	CG	ASP	U	211	-24.728	63.702	28.435	1	122.53	C
ATOM	14359	OD1	ASP	U	211	-25.523	63.798	29.382	1	112.92	O
ATOM	14360	OD2	ASP	U	211	-23.646	63.075	28.503	1	126.19	O
ATOM	14361	C	ASP	U	211	-26.811	64.403	25.293	1	152.83	C
ATOM	14362	O	ASP	U	211	-27.018	63.642	24.337	1	155.81	O
ATOM	14363	N	LYS	U	212	-26.876	65.729	25.205	1	152.96	N
ATOM	14364	CA	LYS	U	212	-27.155	66.388	23.944	1	158.42	C
ATOM	14365	CB	LYS	U	212	-28.658	66.656	23.811	1	147.9	C
ATOM	14366	CG	LYS	U	212	-29.222	66.293	22.453	1	147.97	C
ATOM	14367	CD	LYS	U	212	-29.223	64.782	22.236	1	152.03	C
ATOM	14368	CE	LYS	U	212	-30.023	64.392	20.999	1	157.88	C
ATOM	14369	NZ	LYS	U	212	-29.966	62.933	20.703	1	158.33	N
ATOM	14370	C	LYS	U	212	-26.376	67.685	23.837	1	170.54	C
ATOM	14371	O	LYS	U	212	-26.539	68.584	24.665	1	177.75	O
ATOM	14372	N	LYS	U	213	-25.531	67.771	22.808	1	165.92	N
ATOM	14373	CA	LYS	U	213	-24.898	69.033	22.433	1	157.77	C
ATOM	14374	CB	LYS	U	213	-23.807	68.797	21.369	1	158.67	C
ATOM	14375	CG	LYS	U	213	-22.704	69.853	21.324	1	159.11	C
ATOM	14376	CD	LYS	U	213	-21.555	69.445	20.406	1	155.12	C
ATOM	14377	CE	LYS	U	213	-20.421	70.465	20.399	1	146.92	C
ATOM	14378	NZ	LYS	U	213	-19.548	70.345	19.198	1	140.22	N
ATOM	14379	C	LYS	U	213	-25.998	69.987	21.926	1	144.97	C
ATOM	14380	O	LYS	U	213	-27.122	69.56	21.641	1	138.13	O
ATOM	14381	N	VAL	U	214	-25.687	71.278	21.861	1	138.83	N
ATOM	14382	CA	VAL	U	214	-26.644	72.287	21.409	1	136.81	C
ATOM	14383	CB	VAL	U	214	-27.292	73.038	22.598	1	137.1	C
ATOM	14384	CG1	VAL	U	214	-28.789	73.151	22.373	1	141.31	C
ATOM	14385	CG2	VAL	U	214	-27.023	72.352	23.935	1	135.56	C

ATOM	14386	C	VAL	U	214	-25.96	73.295	20.476	1	142.34	C
ATOM	14387	O	VAL	U	214	-25.053	74.016	20.896	1	146.98	O
ATOM	14388	N	GLU	U	215	-26.411	73.347	19.222	1	144.39	N
ATOM	14389	CA	GLU	U	215	-25.734	74.11	18.163	1	145.97	C
ATOM	14390	CB	GLU	U	215	-24.442	73.39	17.746	1	149.04	C
ATOM	14391	CG	GLU	U	215	-24.566	71.867	17.61	1	156.08	C
ATOM	14392	CD	GLU	U	215	-23.231	71.128	17.577	1	165.52	C
ATOM	14393	OE1	GLU	U	215	-23.181	70.022	16.992	1	168.04	O
ATOM	14394	OE2	GLU	U	215	-22.234	71.632	18.139	1	171.03	O
ATOM	14395	C	GLU	U	215	-26.675	74.291	16.958	1	149.69	C
ATOM	14396	O	GLU	U	215	-27.365	73.341	16.592	1	171.28	O
ATOM	14397	N	PRO	U	216	-26.712	75.499	16.34	1	149.43	N
ATOM	14398	CA	PRO	U	216	-27.728	75.848	15.31	1	148.59	C
ATOM	14399	CB	PRO	U	216	-27.233	77.193	14.756	1	150.72	C
ATOM	14400	CG	PRO	U	216	-26.398	77.771	15.837	1	155.8	C
ATOM	14401	CD	PRO	U	216	-25.789	76.622	16.592	1	152.45	C
ATOM	14402	C	PRO	U	216	-27.896	74.849	14.158	1	143.31	C
ATOM	14403	O	PRO	U	216	-26.934	74.192	13.769	1	146.91	O
ATOM	14404	N	LYS	U	217	-29.112	74.765	13.617	1	142.86	N
ATOM	14405	CA	LYS	U	217	-29.442	73.809	12.549	1	144.29	C
ATOM	14406	CB	LYS	U	217	-30.97	73.728	12.368	1	128.38	C
ATOM	14407	C	LYS	U	217	-28.736	74.118	11.2	1	145.93	C
ATOM	14408	O	LYS	U	217	-27.814	73.392	10.793	1	131.67	O
ATOM	14409	N	SER	U	218	-29.161	75.197	10.535	1	146.14	N
ATOM	14410	CA	SER	U	218	-28.743	75.519	9.157	1	146.95	C
ATOM	14411	CB	SER	U	218	-27.27	75.951	9.098	1	145.7	C
ATOM	14412	OG	SER	U	218	-27.001	76.662	7.894	1	134.14	O
ATOM	14413	C	SER	U	218	-29.038	74.358	8.188	1	147.98	C
ATOM	14414	O	SER	U	218	-28.193	73.922	7.4	1	143.36	O
TER	14415		SER	U	218						
ATOM	14416	N	ASP	V	1	-69.696	71.521	56.299	1	133.1	N
ATOM	14417	CA	ASP	V	1	-68.238	71.78	56.535	1	131.1	C
ATOM	14418	CB	ASP	V	1	-67.39	71.185	55.408	1	129.31	C
ATOM	14419	CG	ASP	V	1	-67.564	69.687	55.277	1	130.8	C
ATOM	14420	OD1	ASP	V	1	-67.115	68.968	56.191	1	122.05	O
ATOM	14421	OD2	ASP	V	1	-68.142	69.226	54.263	1	137.26	O
ATOM	14422	C	ASP	V	1	-67.97	73.273	56.629	1	126.8	C
ATOM	14423	O	ASP	V	1	-68.731	74.083	56.087	1	123.79	O
ATOM	14424	N	ILE	V	2	-66.899	73.638	57.326	1	113.82	N
ATOM	14425	CA	ILE	V	2	-66.482	75.024	57.347	1	112.33	C
ATOM	14426	CB	ILE	V	2	-65.769	75.399	58.648	1	118.65	C
ATOM	14427	CG1	ILE	V	2	-66.795	75.439	59.783	1	117.12	C
ATOM	14428	CD1	ILE	V	2	-66.448	76.359	60.943	1	120.05	C
ATOM	14429	CG2	ILE	V	2	-65.018	76.725	58.483	1	127.02	C

ATOM	14430	C	ILE	V	2	-65.537	75.203	56.198	1	109.53	C
ATOM	14431	O	ILE	V	2	-64.508	74.548	56.152	1	118.87	O
ATOM	14432	N	VAL	V	3	-65.876	76.109	55.291	1	105.81	N
ATOM	14433	CA	VAL	V	3	-65.001	76.441	54.182	1	102.01	C
ATOM	14434	CB	VAL	V	3	-65.775	76.602	52.865	1	102.28	C
ATOM	14435	CG1	VAL	V	3	-64.807	76.657	51.693	1	106.92	C
ATOM	14436	CG2	VAL	V	3	-66.761	75.459	52.685	1	102.16	C
ATOM	14437	C	VAL	V	3	-64.264	77.734	54.517	1	99.84	C
ATOM	14438	O	VAL	V	3	-64.872	78.806	54.657	1	100.88	O
ATOM	14439	N	MET	V	4	-62.949	77.612	54.636	1	92.02	N
ATOM	14440	CA	MET	V	4	-62.079	78.734	54.9	1	91.83	C
ATOM	14441	CB	MET	V	4	-61.016	78.293	55.863	1	94.25	C
ATOM	14442	CG	MET	V	4	-61.642	77.733	57.121	1	100.46	C
ATOM	14443	SD	MET	V	4	-61.008	78.533	58.588	1	108.88	S
ATOM	14444	CE	MET	V	4	-61.593	80.203	58.335	1	100.91	C
ATOM	14445	C	MET	V	4	-61.468	79.212	53.596	1	97.46	C
ATOM	14446	O	MET	V	4	-61.095	78.395	52.754	1	112.73	O
ATOM	14447	N	THR	V	5	-61.358	80.529	53.44	1	95.88	N
ATOM	14448	CA	THR	V	5	-61.121	81.159	52.134	1	103.26	C
ATOM	14449	CB	THR	V	5	-62.399	81.903	51.672	1	103.92	C
ATOM	14450	OG1	THR	V	5	-63.511	81	51.696	1	111.38	O
ATOM	14451	CG2	THR	V	5	-62.241	82.492	50.26	1	103.9	C
ATOM	14452	C	THR	V	5	-59.974	82.17	52.144	1	108.1	C
ATOM	14453	O	THR	V	5	-60.113	83.253	52.695	1	127.67	O
ATOM	14454	N	GLN	V	6	-58.848	81.828	51.532	1	102.63	N
ATOM	14455	CA	GLN	V	6	-57.812	82.822	51.257	1	104.12	C
ATOM	14456	CB	GLN	V	6	-56.425	82.217	51.436	1	102.96	C
ATOM	14457	CG	GLN	V	6	-56.189	81.569	52.794	1	102.85	C
ATOM	14458	CD	GLN	V	6	-54.753	81.099	52.984	1	103.92	C
ATOM	14459	OE1	GLN	V	6	-54.495	79.918	53.241	1	96.31	O
ATOM	14460	NE2	GLN	V	6	-53.81	82.025	52.863	1	107.33	N
ATOM	14461	C	GLN	V	6	-58	83.273	49.82	1	109.97	C
ATOM	14462	O	GLN	V	6	-58.416	82.474	48.988	1	118.91	O
ATOM	14463	N	SER	V	7	-57.715	84.542	49.526	1	116.63	N
ATOM	14464	CA	SER	V	7	-57.675	85.031	48.131	1	119.44	C
ATOM	14465	CB	SER	V	7	-59.091	85.112	47.527	1	113.83	C
ATOM	14466	OG	SER	V	7	-60.047	85.517	48.491	1	109.83	O
ATOM	14467	C	SER	V	7	-56.951	86.393	48.002	1	129.44	C
ATOM	14468	O	SER	V	7	-57.263	87.312	48.758	1	137.83	O
ATOM	14469	N	GLN	V	8	-56.012	86.565	47.062	1	138.87	N
ATOM	14470	CA	GLN	V	8	-55.67	85.596	46.003	1	143.64	C
ATOM	14471	CB	GLN	V	8	-55.441	86.329	44.653	1	164.41	C
ATOM	14472	CG	GLN	V	8	-56.05	85.625	43.43	1	166.93	C
ATOM	14473	CD	GLN	V	8	-55.669	86.245	42.084	1	168.05	C

ATOM	14474	OE1	GLN	V	8	-55.689	85.566	41.054	1	168.74	O
ATOM	14475	NE2	GLN	V	8	-55.337	87.533	42.083	1	162.39	N
ATOM	14476	C	GLN	V	8	-54.454	84.76	46.453	1	120.6	C
ATOM	14477	O	GLN	V	8	-54.125	84.722	47.641	1	97.7	O
ATOM	14478	N	LYS	V	9	-53.783	84.106	45.509	1	110.27	N
ATOM	14479	CA	LYS	V	9	-52.778	83.118	45.838	1	112.53	C
ATOM	14480	CB	LYS	V	9	-52.715	82.027	44.751	1	121.84	C
ATOM	14481	CG	LYS	V	9	-54.06	81.522	44.2	1	126.53	C
ATOM	14482	CD	LYS	V	9	-54.717	80.46	45.075	1	136.05	C
ATOM	14483	CE	LYS	V	9	-54.264	79.05	44.708	1	142.9	C
ATOM	14484	NZ	LYS	V	9	-54.731	78.015	45.68	1	144.17	N
ATOM	14485	C	LYS	V	9	-51.424	83.807	45.987	1	113.02	C
ATOM	14486	O	LYS	V	9	-50.455	83.186	46.423	1	104.5	O
ATOM	14487	N	PHE	V	10	-51.351	85.092	45.628	1	122.54	N
ATOM	14488	CA	PHE	V	10	-50.073	85.784	45.501	1	127.07	C
ATOM	14489	CB	PHE	V	10	-49.754	85.976	44.025	1	127.76	C
ATOM	14490	CG	PHE	V	10	-49.605	84.684	43.3	1	117.61	C
ATOM	14491	CD1	PHE	V	10	-48.477	83.901	43.509	1	108.58	C
ATOM	14492	CE1	PHE	V	10	-48.335	82.686	42.879	1	105.59	C
ATOM	14493	CZ	PHE	V	10	-49.337	82.234	42.039	1	106.45	C
ATOM	14494	CE2	PHE	V	10	-50.479	82.997	41.833	1	107.75	C
ATOM	14495	CD2	PHE	V	10	-50.615	84.214	42.47	1	110.73	C
ATOM	14496	C	PHE	V	10	-50.017	87.115	46.231	1	129.24	C
ATOM	14497	O	PHE	V	10	-50.947	87.938	46.158	1	114.84	O
ATOM	14498	N	MET	V	11	-48.898	87.303	46.926	1	132.69	N
ATOM	14499	CA	MET	V	11	-48.636	88.487	47.714	1	140.94	C
ATOM	14500	CB	MET	V	11	-48.59	88.129	49.209	1	146.5	C
ATOM	14501	CG	MET	V	11	-49.432	89.018	50.122	1	142.01	C
ATOM	14502	SD	MET	V	11	-51.2	88.883	49.778	1	140.04	S
ATOM	14503	CE	MET	V	11	-51.922	89.425	51.329	1	142.06	C
ATOM	14504	C	MET	V	11	-47.295	89.039	47.251	1	138.27	C
ATOM	14505	O	MET	V	11	-46.264	88.351	47.33	1	112.51	O
ATOM	14506	N	SER	V	12	-47.335	90.26	46.723	1	140.43	N
ATOM	14507	CA	SER	V	12	-46.143	91.028	46.445	1	139.62	C
ATOM	14508	CB	SER	V	12	-46.072	91.422	44.964	1	147.35	C
ATOM	14509	OG	SER	V	12	-44.754	91.798	44.59	1	142.93	O
ATOM	14510	C	SER	V	12	-46.213	92.246	47.341	1	134.35	C
ATOM	14511	O	SER	V	12	-47.132	93.052	47.213	1	130.75	O
ATOM	14512	N	THR	V	13	-45.29	92.315	48.3	1	140.39	N
ATOM	14513	CA	THR	V	13	-44.972	93.545	49.045	1	153.85	C
ATOM	14514	CB	THR	V	13	-45.435	93.493	50.535	1	155.12	C
ATOM	14515	OG1	THR	V	13	-44.573	92.645	51.313	1	150.98	O
ATOM	14516	CG2	THR	V	13	-46.88	93.002	50.655	1	153.74	C
ATOM	14517	C	THR	V	13	-43.453	93.749	48.955	1	157.54	C

ATOM	14518	O	THR	V	13	-42.764	92.987	48.26	1	168.43	O
ATOM	14519	N	SER	V	14	-42.938	94.776	49.635	1	143.46	N
ATOM	14520	CA	SER	V	14	-41.484	94.955	49.788	1	133.46	C
ATOM	14521	CB	SER	V	14	-41.073	96.401	49.474	1	123.73	C
ATOM	14522	OG	SER	V	14	-40.928	96.6	48.078	1	104.07	O
ATOM	14523	C	SER	V	14	-41.053	94.558	51.203	1	122.64	C
ATOM	14524	O	SER	V	14	-41.845	94.693	52.139	1	113.03	O
ATOM	14525	N	ILE	V	15	-39.815	94.064	51.349	1	111.56	N
ATOM	14526	CA	ILE	V	15	-39.241	93.758	52.674	1	104.8	C
ATOM	14527	CB	ILE	V	15	-37.74	93.409	52.608	1	93.03	C
ATOM	14528	CG1	ILE	V	15	-37.562	91.974	52.105	1	96.67	C
ATOM	14529	CD1	ILE	V	15	-36.12	91.486	52.047	1	100.3	C
ATOM	14530	CG2	ILE	V	15	-37.068	93.586	53.973	1	83.56	C
ATOM	14531	C	ILE	V	15	-39.427	94.923	53.643	1	115.25	C
ATOM	14532	O	ILE	V	15	-39.185	96.077	53.281	1	116.28	O
ATOM	14533	N	GLY	V	16	-39.846	94.596	54.868	1	125.92	N
ATOM	14534	CA	GLY	V	16	-40.092	95.579	55.922	1	139.67	C
ATOM	14535	C	GLY	V	16	-41.459	96.262	55.985	1	144.94	C
ATOM	14536	O	GLY	V	16	-41.705	97.035	56.915	1	149.91	O
ATOM	14537	N	ASP	V	17	-42.345	96.001	55.022	1	141.33	N
ATOM	14538	CA	ASP	V	17	-43.609	96.751	54.907	1	143.28	C
ATOM	14539	CB	ASP	V	17	-43.83	97.173	53.439	1	155.42	C
ATOM	14540	CG	ASP	V	17	-42.811	98.212	52.973	1	155.67	C
ATOM	14541	OD1	ASP	V	17	-41.595	97.929	53.068	1	149.87	O
ATOM	14542	OD2	ASP	V	17	-43.226	99.31	52.521	1	146.49	O
ATOM	14543	C	ASP	V	17	-44.82	96.017	55.529	1	134.83	C
ATOM	14544	O	ASP	V	17	-44.651	94.994	56.193	1	110.32	O
ATOM	14545	N	ARG	V	18	-46.028	96.557	55.323	1	140.57	N
ATOM	14546	CA	ARG	V	18	-47.213	96.22	56.124	1	149.64	C
ATOM	14547	CB	ARG	V	18	-48.021	97.506	56.408	1	158.82	C
ATOM	14548	CG	ARG	V	18	-48.533	97.647	57.836	1	169.72	C
ATOM	14549	CD	ARG	V	18	-49.477	96.535	58.275	1	171.67	C
ATOM	14550	NE	ARG	V	18	-49.599	96.496	59.733	1	173.49	N
ATOM	14551	CZ	ARG	V	18	-48.676	96.02	60.576	1	182.44	C
ATOM	14552	NH1	ARG	V	18	-47.514	95.522	60.139	1	174.48	N
ATOM	14553	NH2	ARG	V	18	-48.915	96.045	61.886	1	198.23	N
ATOM	14554	C	ARG	V	18	-48.094	95.145	55.463	1	146.41	C
ATOM	14555	O	ARG	V	18	-49.275	95.38	55.164	1	129.74	O
ATOM	14556	N	VAL	V	19	-47.511	93.961	55.268	1	150.42	N
ATOM	14557	CA	VAL	V	19	-48.218	92.824	54.662	1	138.52	C
ATOM	14558	CB	VAL	V	19	-47.245	91.784	54.037	1	131.93	C
ATOM	14559	CG1	VAL	V	19	-46.508	90.968	55.096	1	126.62	C
ATOM	14560	CG2	VAL	V	19	-47.991	90.858	53.084	1	135.98	C
ATOM	14561	C	VAL	V	19	-49.149	92.157	55.682	1	133.23	C

ATOM	14562	O	VAL	V	19	-48.729	91.803	56.787	1	130.37	O
ATOM	14563	N	SER	V	20	-50.416	92.011	55.299	1	130.85	N
ATOM	14564	CA	SER	V	20	-51.413	91.322	56.112	1	129.28	C
ATOM	14565	CB	SER	V	20	-52.323	92.332	56.817	1	131.65	C
ATOM	14566	OG	SER	V	20	-52.406	92.064	58.205	1	125.88	O
ATOM	14567	C	SER	V	20	-52.206	90.382	55.197	1	134.5	C
ATOM	14568	O	SER	V	20	-52.688	90.79	54.134	1	132.87	O
ATOM	14569	N	VAL	V	21	-52.341	89.133	55.635	1	133.7	N
ATOM	14570	CA	VAL	V	21	-52.74	88.019	54.78	1	128.83	C
ATOM	14571	CB	VAL	V	21	-51.651	86.918	54.84	1	134.29	C
ATOM	14572	CG1	VAL	V	21	-52.107	85.624	54.173	1	135.17	C
ATOM	14573	CG2	VAL	V	21	-50.347	87.42	54.216	1	134.94	C
ATOM	14574	C	VAL	V	21	-54.075	87.483	55.279	1	118.98	C
ATOM	14575	O	VAL	V	21	-54.124	86.803	56.296	1	125.48	O
ATOM	14576	N	THR	V	22	-55.153	87.793	54.571	1	112.58	N
ATOM	14577	CA	THR	V	22	-56.495	87.469	55.059	1	117.03	C
ATOM	14578	CB	THR	V	22	-57.561	88.375	54.418	1	119.42	C
ATOM	14579	OG1	THR	V	22	-57.598	88.151	53.001	1	117.63	O
ATOM	14580	CG2	THR	V	22	-57.271	89.842	54.731	1	121.58	C
ATOM	14581	C	THR	V	22	-56.919	86.011	54.859	1	118.48	C
ATOM	14582	O	THR	V	22	-56.264	85.238	54.167	1	124.69	O
ATOM	14583	N	CYS	V	23	-58.028	85.67	55.509	1	116.79	N
ATOM	14584	CA	CYS	V	23	-58.679	84.375	55.405	1	107.16	C
ATOM	14585	CB	CYS	V	23	-57.875	83.34	56.17	1	105.75	C
ATOM	14586	SG	CYS	V	23	-58.749	81.782	56.356	1	110.75	S
ATOM	14587	C	CYS	V	23	-60.088	84.491	56.002	1	106.95	C
ATOM	14588	O	CYS	V	23	-60.267	85.171	57.012	1	121.41	O
ATOM	14589	N	LYS	V	24	-61.08	83.85	55.386	1	107.68	N
ATOM	14590	CA	LYS	V	24	-62.489	83.976	55.82	1	110.89	C
ATOM	14591	CB	LYS	V	24	-63.295	84.827	54.83	1	116.68	C
ATOM	14592	CG	LYS	V	24	-62.591	86.115	54.405	1	132.15	C
ATOM	14593	CD	LYS	V	24	-61.754	85.93	53.132	1	145.51	C
ATOM	14594	CE	LYS	V	24	-60.364	86.574	53.184	1	149	C
ATOM	14595	NZ	LYS	V	24	-60.296	87.995	52.728	1	150.61	N
ATOM	14596	C	LYS	V	24	-63.192	82.633	56.012	1	104.61	C
ATOM	14597	O	LYS	V	24	-63.139	81.768	55.141	1	109.32	O
ATOM	14598	N	ALA	V	25	-63.846	82.479	57.162	1	98.67	N
ATOM	14599	CA	ALA	V	25	-64.704	81.335	57.439	1	97.14	C
ATOM	14600	CB	ALA	V	25	-64.837	81.108	58.939	1	101.69	C
ATOM	14601	C	ALA	V	25	-66.071	81.557	56.848	1	94.28	C
ATOM	14602	O	ALA	V	25	-66.537	82.685	56.726	1	91.3	O
ATOM	14603	N	SER	V	26	-66.703	80.454	56.486	1	95.52	N
ATOM	14604	CA	SER	V	26	-68.098	80.449	56.126	1	98.95	C
ATOM	14605	CB	SER	V	26	-68.385	79.248	55.224	1	100.17	C

ATOM	14606	OG	SER	V	26	-67.811	78.064	55.765	1	101.59	O
ATOM	14607	C	SER	V	26	-68.985	80.441	57.396	1	103.04	C
ATOM	14608	O	SER	V	26	-69.976	81.159	57.439	1	101.98	O
ATOM	14609	N	GLN	V	27	-68.629	79.668	58.429	1	106.54	N
ATOM	14610	CA	GLN	V	27	-69.501	79.516	59.619	1	113.4	C
ATOM	14611	CB	GLN	V	27	-69.398	78.107	60.249	1	118.42	C
ATOM	14612	CG	GLN	V	27	-70.622	77.217	60.067	1	118.59	C
ATOM	14613	CD	GLN	V	27	-70.826	76.732	58.642	1	122.8	C
ATOM	14614	OE1	GLN	V	27	-70.026	77.007	57.744	1	122.97	O
ATOM	14615	NE2	GLN	V	27	-71.91	75.995	58.43	1	128.7	N
ATOM	14616	C	GLN	V	27	-69.256	80.586	60.676	1	119.8	C
ATOM	14617	O	GLN	V	27	-70.001	81.57	60.747	1	132.23	O
ATOM	14618	N	ASN	V	28	-68.231	80.392	61.501	1	115.06	N
ATOM	14619	CA	ASN	V	28	-67.968	81.286	62.623	1	126.46	C
ATOM	14620	CB	ASN	V	28	-69.165	81.411	63.59	1	129.12	C
ATOM	14621	CG	ASN	V	28	-68.729	81.733	65.031	1	132.19	C
ATOM	14622	OD1	ASN	V	28	-68.807	80.883	65.921	1	135.81	O
ATOM	14623	ND2	ASN	V	28	-68.217	82.944	65.246	1	124.41	N
ATOM	14624	C	ASN	V	28	-66.811	80.793	63.441	1	127.94	C
ATOM	14625	O	ASN	V	28	-66.687	79.595	63.669	1	128.62	O
ATOM	14626	N	VAL	V	29	-65.977	81.743	63.859	1	128.61	N
ATOM	14627	CA	VAL	V	29	-65.241	81.674	65.126	1	121.17	C
ATOM	14628	CB	VAL	V	29	-64.261	80.451	65.222	1	111.03	C
ATOM	14629	CG1	VAL	V	29	-64.823	79.433	66.204	1	101.66	C
ATOM	14630	CG2	VAL	V	29	-63.889	79.799	63.865	1	102.43	C
ATOM	14631	C	VAL	V	29	-64.557	83.041	65.472	1	123.38	C
ATOM	14632	O	VAL	V	29	-64.303	83.845	64.579	1	122.98	O
ATOM	14633	N	GLY	V	30	-64.271	83.356	66.736	1	119.99	N
ATOM	14634	CA	GLY	V	30	-64.416	82.469	67.889	1	128.92	C
ATOM	14635	C	GLY	V	30	-63.118	81.716	68.045	1	122.48	C
ATOM	14636	O	GLY	V	30	-62.129	82.163	67.5	1	97.36	O
ATOM	14637	N	THR	V	31	-63.146	80.581	68.76	1	133.35	N
ATOM	14638	CA	THR	V	31	-61.958	79.71	69.051	1	135.39	C
ATOM	14639	CB	THR	V	31	-62.271	78.182	69.013	1	131.79	C
ATOM	14640	OG1	THR	V	31	-62.192	77.692	67.668	1	109.7	O
ATOM	14641	CG2	THR	V	31	-63.643	77.84	69.6	1	140.5	C
ATOM	14642	C	THR	V	31	-60.808	79.916	68.076	1	130.14	C
ATOM	14643	O	THR	V	31	-59.645	80.012	68.459	1	130.24	O
ATOM	14644	N	ASN	V	32	-61.195	79.884	66.809	1	119.69	N
ATOM	14645	CA	ASN	V	32	-60.462	80.354	65.631	1	120.53	C
ATOM	14646	CB	ASN	V	32	-59.998	81.869	65.637	1	132.87	C
ATOM	14647	CG	ASN	V	32	-59.366	82.355	66.942	1	137.66	C
ATOM	14648	OD1	ASN	V	32	-58.208	82.085	67.214	1	141.93	O
ATOM	14649	ND2	ASN	V	32	-60.112	83.147	67.711	1	133.14	N

ATOM	14650	C	ASN	V	32	-59.478	79.321	65.044	1	99.92	C
ATOM	14651	O	ASN	V	32	-59.77	78.129	65.029	1	88.99	O
ATOM	14652	N	VAL	V	33	-58.319	79.781	64.603	1	93.02	N
ATOM	14653	CA	VAL	V	33	-57.796	79.361	63.32	1	86.18	C
ATOM	14654	CB	VAL	V	33	-57.789	80.548	62.319	1	85.45	C
ATOM	14655	CG1	VAL	V	33	-59.221	81.018	62.074	1	82.23	C
ATOM	14656	CG2	VAL	V	33	-56.894	81.708	62.77	1	88.12	C
ATOM	14657	C	VAL	V	33	-56.452	78.64	63.33	1	89.45	C
ATOM	14658	O	VAL	V	33	-56.4	77.466	62.978	1	105.51	O
ATOM	14659	N	ALA	V	34	-55.396	79.315	63.77	1	85.77	N
ATOM	14660	CA	ALA	V	34	-53.997	78.937	63.474	1	88.52	C
ATOM	14661	CB	ALA	V	34	-53.697	77.455	63.755	1	84.32	C
ATOM	14662	C	ALA	V	34	-53.539	79.319	62.058	1	88.15	C
ATOM	14663	O	ALA	V	34	-54.358	79.496	61.136	1	81.71	O
ATOM	14664	N	TRP	V	35	-52.216	79.476	61.928	1	87.73	N
ATOM	14665	CA	TRP	V	35	-51.55	79.74	60.653	1	89.92	C
ATOM	14666	CB	TRP	V	35	-51.272	81.233	60.455	1	86.16	C
ATOM	14667	CG	TRP	V	35	-52.493	82.096	60.25	1	89.21	C
ATOM	14668	CD1	TRP	V	35	-53.289	82.622	61.227	1	104.91	C
ATOM	14669	NE1	TRP	V	35	-54.291	83.389	60.673	1	107.92	N
ATOM	14670	CE2	TRP	V	35	-54.157	83.374	59.311	1	94.68	C
ATOM	14671	CD2	TRP	V	35	-53.028	82.572	59.006	1	87.98	C
ATOM	14672	CE3	TRP	V	35	-52.666	82.405	57.667	1	91.84	C
ATOM	14673	CZ3	TRP	V	35	-53.442	83.036	56.675	1	94.93	C
ATOM	14674	CH2	TRP	V	35	-54.567	83.817	57.016	1	91.96	C
ATOM	14675	CZ2	TRP	V	35	-54.937	83.997	58.323	1	92.54	C
ATOM	14676	C	TRP	V	35	-50.246	78.916	60.521	1	92.75	C
ATOM	14677	O	TRP	V	35	-49.538	78.638	61.502	1	83.21	O
ATOM	14678	N	TYR	V	36	-49.957	78.54	59.277	1	91.77	N
ATOM	14679	CA	TYR	V	36	-48.896	77.619	58.94	1	85.58	C
ATOM	14680	CB	TYR	V	36	-49.534	76.3	58.538	1	79.65	C
ATOM	14681	CG	TYR	V	36	-49.692	75.318	59.66	1	80.17	C
ATOM	14682	CD1	TYR	V	36	-50.74	75.42	60.578	1	80.02	C
ATOM	14683	CE1	TYR	V	36	-50.873	74.489	61.615	1	81.66	C
ATOM	14684	CZ	TYR	V	36	-49.959	73.432	61.725	1	79.25	C
ATOM	14685	OH	TYR	V	36	-50.08	72.493	62.736	1	72.15	O
ATOM	14686	CE2	TYR	V	36	-48.926	73.322	60.811	1	78.45	C
ATOM	14687	CD2	TYR	V	36	-48.801	74.253	59.793	1	80.83	C
ATOM	14688	C	TYR	V	36	-48.114	78.186	57.758	1	97.86	C
ATOM	14689	O	TYR	V	36	-48.737	78.669	56.803	1	104.58	O
ATOM	14690	N	GLN	V	37	-46.773	78.148	57.818	1	101.07	N
ATOM	14691	CA	GLN	V	37	-45.922	78.502	56.658	1	96.43	C
ATOM	14692	CB	GLN	V	37	-44.719	79.385	57.037	1	100.97	C
ATOM	14693	CG	GLN	V	37	-43.37	78.698	57.288	1	110.08	C

ATOM	14694	CD	GLN	V	37	-42.209	79.667	57.539	1	116.97	C
ATOM	14695	OE1	GLN	V	37	-41.137	79.249	58.011	1	113.07	O
ATOM	14696	NE2	GLN	V	37	-42.404	80.957	57.213	1	110.02	N
ATOM	14697	C	GLN	V	37	-45.423	77.237	56.018	1	91.55	C
ATOM	14698	O	GLN	V	37	-45.092	76.287	56.724	1	86.5	O
ATOM	14699	N	GLN	V	38	-45.334	77.232	54.693	1	95.17	N
ATOM	14700	CA	GLN	V	38	-44.684	76.135	53.991	1	102.17	C
ATOM	14701	CB	GLN	V	38	-45.707	75.19	53.376	1	100.68	C
ATOM	14702	CG	GLN	V	38	-45.193	73.761	53.306	1	98.67	C
ATOM	14703	CD	GLN	V	38	-46.15	72.836	52.594	1	96.78	C
ATOM	14704	OE1	GLN	V	38	-47.228	73.249	52.145	1	85.05	O
ATOM	14705	NE2	GLN	V	38	-45.761	71.569	52.482	1	96.58	N
ATOM	14706	C	GLN	V	38	-43.691	76.625	52.933	1	106.85	C
ATOM	14707	O	GLN	V	38	-44.04	77.358	51.993	1	94.57	O
ATOM	14708	N	LYS	V	39	-42.444	76.207	53.127	1	114.39	N
ATOM	14709	CA	LYS	V	39	-41.374	76.448	52.189	1	127.85	C
ATOM	14710	CB	LYS	V	39	-40.133	76.95	52.929	1	137.05	C
ATOM	14711	CG	LYS	V	39	-40.321	78.355	53.508	1	137.31	C
ATOM	14712	CD	LYS	V	39	-39.199	78.801	54.442	1	138.13	C
ATOM	14713	CE	LYS	V	39	-39.137	77.973	55.721	1	135.97	C
ATOM	14714	NZ	LYS	V	39	-38.35	78.639	56.796	1	133.7	N
ATOM	14715	C	LYS	V	39	-41.132	75.114	51.476	1	130.54	C
ATOM	14716	O	LYS	V	39	-41.062	74.072	52.141	1	122.69	O
ATOM	14717	N	PRO	V	40	-41.04	75.137	50.125	1	129.23	N
ATOM	14718	CA	PRO	V	40	-40.997	73.934	49.275	1	126.6	C
ATOM	14719	CB	PRO	V	40	-40.369	74.459	47.986	1	126.01	C
ATOM	14720	CG	PRO	V	40	-40.821	75.878	47.908	1	124.25	C
ATOM	14721	CD	PRO	V	40	-41.023	76.369	49.308	1	121.08	C
ATOM	14722	C	PRO	V	40	-40.176	72.751	49.815	1	120.05	C
ATOM	14723	O	PRO	V	40	-39.095	72.943	50.351	1	112.36	O
ATOM	14724	N	GLY	V	41	-40.709	71.54	49.69	1	123.71	N
ATOM	14725	CA	GLY	V	41	-39.994	70.33	50.103	1	134.68	C
ATOM	14726	C	GLY	V	41	-39.731	70.222	51.595	1	143.41	C
ATOM	14727	O	GLY	V	41	-38.873	69.444	52.025	1	149.41	O
ATOM	14728	N	GLN	V	42	-40.472	71.001	52.38	1	145.11	N
ATOM	14729	CA	GLN	V	42	-40.343	71.008	53.824	1	140.68	C
ATOM	14730	CB	GLN	V	42	-39.583	72.252	54.297	1	152.45	C
ATOM	14731	CG	GLN	V	42	-38.166	72.404	53.748	1	155.04	C
ATOM	14732	CD	GLN	V	42	-37.517	73.746	54.095	1	163	C
ATOM	14733	OE1	GLN	V	42	-38.153	74.643	54.657	1	153.68	O
ATOM	14734	NE2	GLN	V	42	-36.243	73.894	53.738	1	167.27	N
ATOM	14735	C	GLN	V	42	-41.747	70.975	54.429	1	126.57	C
ATOM	14736	O	GLN	V	42	-42.655	71.704	53.973	1	105.95	O
ATOM	14737	N	SER	V	43	-41.908	70.127	55.451	1	117.33	N

ATOM	14738	CA	SER	V	43	-43.191	69.944	56.146	1	118.82	C
ATOM	14739	CB	SER	V	43	-43.108	68.776	57.14	1	120.4	C
ATOM	14740	OG	SER	V	43	-42.067	68.962	58.077	1	118.9	O
ATOM	14741	C	SER	V	43	-43.633	71.214	56.878	1	105.06	C
ATOM	14742	O	SER	V	43	-42.825	71.825	57.575	1	102.71	O
ATOM	14743	N	PRO	V	44	-44.928	71.582	56.759	1	94.12	N
ATOM	14744	CA	PRO	V	44	-45.357	72.919	57.107	1	87.68	C
ATOM	14745	CB	PRO	V	44	-46.83	72.925	56.705	1	87.03	C
ATOM	14746	CG	PRO	V	44	-47.275	71.551	57	1	91.88	C
ATOM	14747	CD	PRO	V	44	-46.08	70.662	56.714	1	96.42	C
ATOM	14748	C	PRO	V	44	-45.201	73.12	58.588	1	84.94	C
ATOM	14749	O	PRO	V	44	-45.274	72.157	59.343	1	83.96	O
ATOM	14750	N	LYS	V	45	-44.96	74.362	58.983	1	87.93	N
ATOM	14751	CA	LYS	V	45	-44.586	74.691	60.344	1	91.6	C
ATOM	14752	CB	LYS	V	45	-43.26	75.46	60.339	1	94.28	C
ATOM	14753	CG	LYS	V	45	-42.254	75.041	61.403	1	97.24	C
ATOM	14754	CD	LYS	V	45	-40.83	75.459	61.016	1	100.07	C
ATOM	14755	CE	LYS	V	45	-39.933	75.735	62.226	1	99.62	C
ATOM	14756	NZ	LYS	V	45	-39.801	74.592	63.175	1	97.44	N
ATOM	14757	C	LYS	V	45	-45.711	75.529	60.917	1	98.64	C
ATOM	14758	O	LYS	V	45	-46.34	76.328	60.206	1	91.83	O
ATOM	14759	N	ALA	V	46	-45.969	75.327	62.202	1	100.48	N
ATOM	14760	CA	ALA	V	46	-47.012	76.059	62.891	1	101.16	C
ATOM	14761	CB	ALA	V	46	-47.473	75.24	64.085	1	105.47	C
ATOM	14762	C	ALA	V	46	-46.497	77.448	63.329	1	97.51	C
ATOM	14763	O	ALA	V	46	-45.421	77.551	63.911	1	95.73	O
ATOM	14764	N	LEU	V	47	-47.252	78.506	63.039	1	95.41	N
ATOM	14765	CA	LEU	V	47	-46.899	79.877	63.473	1	101.55	C
ATOM	14766	CB	LEU	V	47	-47.14	80.871	62.337	1	100.68	C
ATOM	14767	CG	LEU	V	47	-46.457	80.668	60.997	1	95.05	C
ATOM	14768	CD1	LEU	V	47	-46.803	81.873	60.138	1	90.16	C
ATOM	14769	CD2	LEU	V	47	-44.953	80.483	61.154	1	92.35	C
ATOM	14770	C	LEU	V	47	-47.685	80.431	64.665	1	104.89	C
ATOM	14771	O	LEU	V	47	-47.119	81.106	65.519	1	105.18	O
ATOM	14772	N	VAL	V	48	-48.993	80.167	64.68	1	110.09	N
ATOM	14773	CA	VAL	V	48	-49.981	80.963	65.414	1	100.72	C
ATOM	14774	CB	VAL	V	48	-50.578	82.007	64.449	1	92.31	C
ATOM	14775	CG1	VAL	V	48	-51.916	82.562	64.943	1	93.92	C
ATOM	14776	CG2	VAL	V	48	-49.558	83.105	64.178	1	86.11	C
ATOM	14777	C	VAL	V	48	-51.1	80.083	65.995	1	107.14	C
ATOM	14778	O	VAL	V	48	-51.496	79.092	65.387	1	109.7	O
ATOM	14779	N	TYR	V	49	-51.603	80.461	67.17	1	112.05	N
ATOM	14780	CA	TYR	V	49	-52.711	79.77	67.829	1	102.14	C
ATOM	14781	CB	TYR	V	49	-52.443	79.578	69.324	1	92.85	C

ATOM	14782	C	TYR	V	49	-53.908	80.653	67.61	1	99.98	C
ATOM	14783	O	TYR	V	49	-54.414	80.731	66.49	1	109.68	O
ATOM	14784	N	SER	V	50	-54.313	81.386	68.64	1	97.53	N
ATOM	14785	CA	SER	V	50	-55.552	82.119	68.575	1	103.61	C
ATOM	14786	CB	SER	V	50	-56.145	82.292	69.974	1	100.05	C
ATOM	14787	OG	SER	V	50	-57.565	82.331	69.893	1	105.36	O
ATOM	14788	C	SER	V	50	-55.347	83.466	67.898	1	112	C
ATOM	14789	O	SER	V	50	-54.306	83.709	67.277	1	109.32	O
ATOM	14790	N	THR	V	51	-56.358	84.328	67.999	1	129.57	N
ATOM	14791	CA	THR	V	51	-56.164	85.781	67.878	1	143.46	C
ATOM	14792	CB	THR	V	51	-57.51	86.576	67.799	1	152.97	C
ATOM	14793	OG1	THR	V	51	-57.254	87.99	67.828	1	156.57	O
ATOM	14794	CG2	THR	V	51	-58.48	86.221	68.945	1	153.99	C
ATOM	14795	C	THR	V	51	-55.285	86.261	69.054	1	133.03	C
ATOM	14796	O	THR	V	51	-55.725	87.063	69.882	1	120.02	O
ATOM	14797	N	SER	V	52	-54.04	85.778	69.085	1	130.13	N
ATOM	14798	CA	SER	V	52	-53.152	85.88	70.249	1	129.91	C
ATOM	14799	CB	SER	V	52	-53.734	85.18	71.493	1	127.84	C
ATOM	14800	OG	SER	V	52	-54.693	85.97	72.161	1	144.39	O
ATOM	14801	C	SER	V	52	-51.785	85.279	69.945	1	125.97	C
ATOM	14802	O	SER	V	52	-50.926	85.96	69.397	1	135.1	O
ATOM	14803	N	TYR	V	53	-51.636	83.978	70.212	1	118.05	N
ATOM	14804	CA	TYR	V	53	-50.347	83.372	70.605	1	111.62	C
ATOM	14805	CB	TYR	V	53	-50.561	82.255	71.654	1	123.94	C
ATOM	14806	CG	TYR	V	53	-51.714	82.509	72.605	1	140.65	C
ATOM	14807	CD1	TYR	V	53	-51.566	83.352	73.713	1	147.85	C
ATOM	14808	CE1	TYR	V	53	-52.629	83.592	74.576	1	150.63	C
ATOM	14809	CZ	TYR	V	53	-53.86	82.986	74.33	1	150.43	C
ATOM	14810	OH	TYR	V	53	-54.93	83.205	75.162	1	141.7	O
ATOM	14811	CE2	TYR	V	53	-54.027	82.152	73.239	1	150.2	C
ATOM	14812	CD2	TYR	V	53	-52.961	81.917	72.386	1	149.18	C
ATOM	14813	C	TYR	V	53	-49.553	82.842	69.407	1	93.87	C
ATOM	14814	O	TYR	V	53	-49.944	83.07	68.258	1	89.33	O
ATOM	14815	N	ARG	V	54	-48.437	82.164	69.692	1	83.17	N
ATOM	14816	CA	ARG	V	54	-47.491	81.679	68.677	1	86.48	C
ATOM	14817	CB	ARG	V	54	-46.559	82.805	68.2	1	85.67	C
ATOM	14818	C	ARG	V	54	-46.646	80.555	69.251	1	92	C
ATOM	14819	O	ARG	V	54	-46.29	80.585	70.42	1	104.72	O
ATOM	14820	N	TYR	V	55	-46.284	79.59	68.415	1	103.98	N
ATOM	14821	CA	TYR	V	55	-45.74	78.308	68.892	1	106.97	C
ATOM	14822	CB	TYR	V	55	-45.905	77.226	67.826	1	112.66	C
ATOM	14823	CG	TYR	V	55	-47.325	76.815	67.527	1	118.09	C
ATOM	14824	CD1	TYR	V	55	-48.136	77.592	66.706	1	112.06	C
ATOM	14825	CE1	TYR	V	55	-49.431	77.208	66.412	1	112.98	C

ATOM	14826	CZ	TYR	V	55	-49.943	76.028	66.913	1	122.93	C
ATOM	14827	OH	TYR	V	55	-51.236	75.66	66.596	1	120.69	O
ATOM	14828	CE2	TYR	V	55	-49.156	75.23	67.73	1	127.93	C
ATOM	14829	CD2	TYR	V	55	-47.852	75.617	68.027	1	124.74	C
ATOM	14830	C	TYR	V	55	-44.267	78.348	69.265	1	105.03	C
ATOM	14831	O	TYR	V	55	-43.541	79.266	68.895	1	99.63	O
ATOM	14832	N	SER	V	56	-43.851	77.306	69.985	1	113.29	N
ATOM	14833	CA	SER	V	56	-42.446	77.04	70.316	1	116.04	C
ATOM	14834	CB	SER	V	56	-42.31	75.616	70.863	1	122.14	C
ATOM	14835	OG	SER	V	56	-40.95	75.26	71.032	1	135.28	O
ATOM	14836	C	SER	V	56	-41.507	77.216	69.117	1	107.21	C
ATOM	14837	O	SER	V	56	-41.518	76.412	68.182	1	103.12	O
ATOM	14838	N	GLY	V	57	-40.709	78.279	69.162	1	106.84	N
ATOM	14839	CA	GLY	V	57	-39.734	78.584	68.12	1	107.64	C
ATOM	14840	C	GLY	V	57	-40.323	79.42	67.007	1	101.07	C
ATOM	14841	O	GLY	V	57	-40.278	79.03	65.847	1	107.57	O
ATOM	14842	N	VAL	V	58	-40.875	80.57	67.369	1	99.79	N
ATOM	14843	CA	VAL	V	58	-41.453	81.502	66.407	1	113.57	C
ATOM	14844	CB	VAL	V	58	-43.003	81.486	66.44	1	117.03	C
ATOM	14845	CG1	VAL	V	58	-43.609	82.65	65.643	1	114.35	C
ATOM	14846	CG2	VAL	V	58	-43.515	80.162	65.893	1	118.92	C
ATOM	14847	C	VAL	V	58	-40.932	82.909	66.67	1	121.19	C
ATOM	14848	O	VAL	V	58	-41.331	83.557	67.649	1	117.42	O
ATOM	14849	N	PRO	V	59	-40.02	83.377	65.803	1	133.09	N
ATOM	14850	CA	PRO	V	59	-39.816	84.809	65.639	1	141.71	C
ATOM	14851	CB	PRO	V	59	-39.029	84.882	64.327	1	145.39	C
ATOM	14852	CG	PRO	V	59	-38.191	83.632	64.35	1	141.36	C
ATOM	14853	CD	PRO	V	59	-38.9	82.613	65.214	1	132.85	C
ATOM	14854	C	PRO	V	59	-41.129	85.632	65.59	1	130.9	C
ATOM	14855	O	PRO	V	59	-42.074	85.311	64.857	1	113.46	O
ATOM	14856	N	ASP	V	60	-41.135	86.71	66.365	1	128.36	N
ATOM	14857	CA	ASP	V	60	-42.358	87.377	66.794	1	124.06	C
ATOM	14858	CB	ASP	V	60	-42.365	87.629	68.334	1	128.57	C
ATOM	14859	CG	ASP	V	60	-40.956	87.781	68.949	1	125.71	C
ATOM	14860	OD1	ASP	V	60	-40.183	86.79	68.938	1	112.81	O
ATOM	14861	OD2	ASP	V	60	-40.635	88.877	69.468	1	123.48	O
ATOM	14862	C	ASP	V	60	-42.611	88.645	65.98	1	119.61	C
ATOM	14863	O	ASP	V	60	-42.61	89.755	66.514	1	103.1	O
ATOM	14864	N	ARG	V	61	-42.792	88.454	64.67	1	131.75	N
ATOM	14865	CA	ARG	V	61	-43.388	89.47	63.775	1	146.35	C
ATOM	14866	CB	ARG	V	61	-42.612	89.581	62.444	1	146.28	C
ATOM	14867	CG	ARG	V	61	-41.349	90.427	62.517	1	145.21	C
ATOM	14868	CD	ARG	V	61	-40.378	90.113	61.392	1	139.58	C
ATOM	14869	NE	ARG	V	61	-39.575	88.908	61.669	1	138.61	N

ATOM	14870	CZ	ARG	V	61	-39.614	87.745	61.001	1	130.08	C
ATOM	14871	NH1	ARG	V	61	-38.801	86.747	61.378	1	119.02	N
ATOM	14872	NH2	ARG	V	61	-40.419	87.566	59.947	1	123.95	N
ATOM	14873	C	ARG	V	61	-44.846	89.117	63.477	1	145.22	C
ATOM	14874	O	ARG	V	61	-45.577	89.929	62.899	1	150.13	O
ATOM	14875	N	PHE	V	62	-45.266	87.922	63.9	1	131.55	N
ATOM	14876	CA	PHE	V	62	-46.497	87.311	63.433	1	121.27	C
ATOM	14877	CB	PHE	V	62	-46.264	85.814	63.246	1	129.43	C
ATOM	14878	CG	PHE	V	62	-45.253	85.482	62.173	1	143.4	C
ATOM	14879	CD1	PHE	V	62	-45.474	85.856	60.838	1	143.66	C
ATOM	14880	CE1	PHE	V	62	-44.554	85.539	59.841	1	135.22	C
ATOM	14881	CZ	PHE	V	62	-43.402	84.833	60.168	1	141.56	C
ATOM	14882	CE2	PHE	V	62	-43.169	84.447	61.489	1	144.36	C
ATOM	14883	CD2	PHE	V	62	-44.092	84.768	62.482	1	147.75	C
ATOM	14884	C	PHE	V	62	-47.667	87.545	64.392	1	111.4	C
ATOM	14885	O	PHE	V	62	-47.598	87.188	65.568	1	114.91	O
ATOM	14886	N	THR	V	63	-48.741	88.139	63.879	1	105.14	N
ATOM	14887	CA	THR	V	63	-49.953	88.364	64.66	1	109.03	C
ATOM	14888	CB	THR	V	63	-50.475	89.842	64.607	1	118.67	C
ATOM	14889	OG1	THR	V	63	-51.52	90.002	63.618	1	106.75	O
ATOM	14890	CG2	THR	V	63	-49.33	90.849	64.366	1	121.98	C
ATOM	14891	C	THR	V	63	-51.054	87.452	64.16	1	107.79	C
ATOM	14892	O	THR	V	63	-51.584	87.658	63.064	1	109.71	O
ATOM	14893	N	GLY	V	64	-51.4	86.452	64.962	1	107.37	N
ATOM	14894	CA	GLY	V	64	-52.723	85.842	64.87	1	116.91	C
ATOM	14895	C	GLY	V	64	-53.757	86.892	65.241	1	122.35	C
ATOM	14896	O	GLY	V	64	-53.697	87.448	66.341	1	133.92	O
ATOM	14897	N	SER	V	65	-54.69	87.172	64.331	1	119.79	N
ATOM	14898	CA	SER	V	65	-55.668	88.247	64.519	1	119.79	C
ATOM	14899	CB	SER	V	65	-55.118	89.545	63.916	1	117.36	C
ATOM	14900	OG	SER	V	65	-56.066	90.186	63.068	1	116.45	O
ATOM	14901	C	SER	V	65	-57.045	87.914	63.932	1	135.57	C
ATOM	14902	O	SER	V	65	-57.235	86.867	63.303	1	154.86	O
ATOM	14903	N	GLY	V	66	-57.997	88.82	64.165	1	144.52	N
ATOM	14904	CA	GLY	V	66	-59.351	88.743	63.605	1	137.98	C
ATOM	14905	C	GLY	V	66	-60.309	87.866	64.396	1	133.44	C
ATOM	14906	O	GLY	V	66	-59.886	87.041	65.221	1	125.66	O
ATOM	14907	N	SER	V	67	-61.605	88.076	64.157	1	128.72	N
ATOM	14908	CA	SER	V	67	-62.661	87.146	64.595	1	126.28	C
ATOM	14909	CB	SER	V	67	-62.756	87.073	66.119	1	124.5	C
ATOM	14910	OG	SER	V	67	-62.076	85.919	66.581	1	132	O
ATOM	14911	C	SER	V	67	-64.041	87.424	63.99	1	128.42	C
ATOM	14912	O	SER	V	67	-64.324	88.509	63.476	1	131.7	O
ATOM	14913	N	GLY	V	68	-64.89	86.408	64.079	1	131.01	N

ATOM	14914	CA	GLY	V	68	-66.18	86.364	63.396	1	133.64	C
ATOM	14915	C	GLY	V	68	-66.099	85.352	62.266	1	125.25	C
ATOM	14916	O	GLY	V	68	-66.136	84.141	62.483	1	113.7	O
ATOM	14917	N	THR	V	69	-65.978	85.861	61.052	1	122.31	N
ATOM	14918	CA	THR	V	69	-65.817	85.027	59.874	1	118.79	C
ATOM	14919	CB	THR	V	69	-67.168	84.919	59.124	1	118.16	C
ATOM	14920	OG1	THR	V	69	-67.876	86.166	59.191	1	110.57	O
ATOM	14921	CG2	THR	V	69	-68.036	83.858	59.771	1	120.17	C
ATOM	14922	C	THR	V	69	-64.679	85.615	59.023	1	120.2	C
ATOM	14923	O	THR	V	69	-64.74	85.602	57.79	1	128.41	O
ATOM	14924	N	ASP	V	70	-63.624	86.071	59.717	1	112.91	N
ATOM	14925	CA	ASP	V	70	-62.573	86.943	59.166	1	107.59	C
ATOM	14926	CB	ASP	V	70	-63.062	88.409	59.157	1	109.66	C
ATOM	14927	CG	ASP	V	70	-63.851	88.794	57.892	1	118.7	C
ATOM	14928	OD1	ASP	V	70	-64.019	87.974	56.962	1	124.97	O
ATOM	14929	OD2	ASP	V	70	-64.31	89.958	57.821	1	124.05	O
ATOM	14930	C	ASP	V	70	-61.316	86.874	60.041	1	100.75	C
ATOM	14931	O	ASP	V	70	-61.378	87.204	61.222	1	108.95	O
ATOM	14932	N	PHE	V	71	-60.182	86.456	59.483	1	93.1	N
ATOM	14933	CA	PHE	V	71	-58.929	86.343	60.26	1	98.71	C
ATOM	14934	CB	PHE	V	71	-58.74	84.925	60.78	1	103.6	C
ATOM	14935	CG	PHE	V	71	-59.991	84.337	61.329	1	111.16	C
ATOM	14936	CD1	PHE	V	71	-60.969	83.863	60.465	1	120.87	C
ATOM	14937	CE1	PHE	V	71	-62.154	83.345	60.943	1	129.33	C
ATOM	14938	CZ	PHE	V	71	-62.377	83.294	62.301	1	131.81	C
ATOM	14939	CE2	PHE	V	71	-61.414	83.772	63.179	1	129.9	C
ATOM	14940	CD2	PHE	V	71	-60.227	84.299	62.692	1	119.39	C
ATOM	14941	C	PHE	V	71	-57.739	86.76	59.42	1	100.9	C
ATOM	14942	O	PHE	V	71	-57.795	86.686	58.199	1	108.92	O
ATOM	14943	N	THR	V	72	-56.661	87.185	60.076	1	100.64	N
ATOM	14944	CA	THR	V	72	-55.632	87.992	59.416	1	99.21	C
ATOM	14945	CB	THR	V	72	-56.012	89.482	59.518	1	100.6	C
ATOM	14946	OG1	THR	V	72	-57.256	89.71	58.837	1	107.74	O
ATOM	14947	CG2	THR	V	72	-54.938	90.371	58.92	1	102.95	C
ATOM	14948	C	THR	V	72	-54.232	87.792	59.996	1	98.63	C
ATOM	14949	O	THR	V	72	-53.931	88.267	61.089	1	111.78	O
ATOM	14950	N	LEU	V	73	-53.372	87.117	59.243	1	99.11	N
ATOM	14951	CA	LEU	V	73	-51.975	86.941	59.635	1	103.33	C
ATOM	14952	CB	LEU	V	73	-51.398	85.674	59.014	1	97.97	C
ATOM	14953	CG	LEU	V	73	-49.921	85.383	59.277	1	97.31	C
ATOM	14954	CD1	LEU	V	73	-49.699	85.015	60.729	1	98.79	C
ATOM	14955	CD2	LEU	V	73	-49.448	84.261	58.372	1	103.24	C
ATOM	14956	C	LEU	V	73	-51.157	88.149	59.198	1	116.34	C
ATOM	14957	O	LEU	V	73	-50.786	88.259	58.02	1	118.39	O

ATOM	14958	N	THR	V	74	-50.871	89.046	60.144	1	125.03	N
ATOM	14959	CA	THR	V	74	-50.115	90.267	59.848	1	124.99	C
ATOM	14960	CB	THR	V	74	-50.623	91.474	60.682	1	122.23	C
ATOM	14961	OG1	THR	V	74	-52.059	91.48	60.722	1	117.13	O
ATOM	14962	CG2	THR	V	74	-50.138	92.799	60.09	1	120.02	C
ATOM	14963	C	THR	V	74	-48.614	90.029	60.076	1	119.97	C
ATOM	14964	O	THR	V	74	-48.223	89.356	61.031	1	99.71	O
ATOM	14965	N	ILE	V	75	-47.789	90.549	59.164	1	133.05	N
ATOM	14966	CA	ILE	V	75	-46.335	90.571	59.342	1	149.65	C
ATOM	14967	CB	ILE	V	75	-45.574	89.665	58.347	1	149.99	C
ATOM	14968	CG1	ILE	V	75	-46.419	88.464	57.905	1	157.49	C
ATOM	14969	CD1	ILE	V	75	-45.785	87.644	56.797	1	160.11	C
ATOM	14970	CG2	ILE	V	75	-44.266	89.201	58.982	1	150.84	C
ATOM	14971	C	ILE	V	75	-45.816	92.01	59.206	1	172.38	C
ATOM	14972	O	ILE	V	75	-46.221	92.759	58.301	1	171.15	O
ATOM	14973	N	SER	V	76	-44.901	92.369	60.109	1	179.45	N
ATOM	14974	CA	SER	V	76	-44.39	93.729	60.244	1	164.3	C
ATOM	14975	CB	SER	V	76	-44.174	94.038	61.726	1	158.67	C
ATOM	14976	OG	SER	V	76	-43.486	92.962	62.35	1	147.81	O
ATOM	14977	C	SER	V	76	-43.1	93.89	59.446	1	161.08	C
ATOM	14978	O	SER	V	76	-43.152	94.238	58.265	1	158.1	O
ATOM	14979	N	ASN	V	77	-41.952	93.61	60.069	1	156.37	N
ATOM	14980	CA	ASN	V	77	-40.657	93.787	59.408	1	156.66	C
ATOM	14981	CB	ASN	V	77	-39.521	93.982	60.429	1	158.77	C
ATOM	14982	CG	ASN	V	77	-39.488	95.389	61.006	1	161.38	C
ATOM	14983	OD1	ASN	V	77	-39.743	95.598	62.194	1	163.35	O
ATOM	14984	ND2	ASN	V	77	-39.179	96.366	60.16	1	165.08	N
ATOM	14985	C	ASN	V	77	-40.4	92.597	58.497	1	148.68	C
ATOM	14986	O	ASN	V	77	-39.582	91.726	58.808	1	138.52	O
ATOM	14987	N	VAL	V	78	-41.097	92.596	57.358	1	138.89	N
ATOM	14988	CA	VAL	V	78	-41.212	91.401	56.514	1	138.83	C
ATOM	14989	CB	VAL	V	78	-42.012	91.619	55.194	1	139.25	C
ATOM	14990	CG1	VAL	V	78	-42.426	90.265	54.614	1	140.84	C
ATOM	14991	CG2	VAL	V	78	-43.229	92.52	55.387	1	130.33	C
ATOM	14992	C	VAL	V	78	-39.82	90.894	56.172	1	132.72	C
ATOM	14993	O	VAL	V	78	-39.156	91.43	55.291	1	133.48	O
ATOM	14994	N	GLN	V	79	-39.368	89.878	56.896	1	131.88	N
ATOM	14995	CA	GLN	V	79	-38.036	89.342	56.666	1	142.85	C
ATOM	14996	CB	GLN	V	79	-37.589	88.417	57.803	1	158.12	C
ATOM	14997	CG	GLN	V	79	-37.303	89.14	59.115	1	165.31	C
ATOM	14998	CD	GLN	V	79	-36.044	89.981	59.086	1	155.68	C
ATOM	14999	OE1	GLN	V	79	-34.947	89.463	59.284	1	148.35	O
ATOM	15000	NE2	GLN	V	79	-36.198	91.289	58.869	1	148.52	N
ATOM	15001	C	GLN	V	79	-38.015	88.623	55.332	1	139.18	C

ATOM	15002	O	GLN	V	79	-39.062	88.42	54.707	1	128.11	O
ATOM	15003	N	SER	V	80	-36.808	88.272	54.903	1	140.8	N
ATOM	15004	CA	SER	V	80	-36.569	87.71	53.583	1	140.17	C
ATOM	15005	CB	SER	V	80	-35.132	88.011	53.147	1	144.83	C
ATOM	15006	OG	SER	V	80	-35.058	88.158	51.743	1	157.46	O
ATOM	15007	C	SER	V	80	-36.835	86.208	53.595	1	136.17	C
ATOM	15008	O	SER	V	80	-37.523	85.683	52.715	1	127	O
ATOM	15009	N	GLU	V	81	-36.29	85.54	54.613	1	145.03	N
ATOM	15010	CA	GLU	V	81	-36.469	84.084	54.846	1	156.91	C
ATOM	15011	CB	GLU	V	81	-35.471	83.587	55.909	1	172.41	C
ATOM	15012	CG	GLU	V	81	-35.589	84.21	57.307	1	188.05	C
ATOM	15013	CD	GLU	V	81	-34.761	85.48	57.502	1	203.32	C
ATOM	15014	OE1	GLU	V	81	-34.516	86.208	56.51	1	207.54	O
ATOM	15015	OE2	GLU	V	81	-34.367	85.759	58.659	1	220.47	O
ATOM	15016	C	GLU	V	81	-37.896	83.605	55.211	1	139.39	C
ATOM	15017	O	GLU	V	81	-38.153	82.389	55.281	1	111.76	O
ATOM	15018	N	ASP	V	82	-38.794	84.563	55.463	1	131.64	N
ATOM	15019	CA	ASP	V	82	-40.23	84.321	55.593	1	122.67	C
ATOM	15020	CB	ASP	V	82	-40.752	85.056	56.825	1	127.96	C
ATOM	15021	CG	ASP	V	82	-40.068	84.587	58.106	1	140.54	C
ATOM	15022	OD1	ASP	V	82	-40.222	83.393	58.466	1	144.96	O
ATOM	15023	OD2	ASP	V	82	-39.374	85.412	58.75	1	132.1	O
ATOM	15024	C	ASP	V	82	-40.965	84.747	54.316	1	120.71	C
ATOM	15025	O	ASP	V	82	-41.995	85.425	54.366	1	104.67	O
ATOM	15026	N	LEU	V	83	-40.387	84.346	53.179	1	134.53	N
ATOM	15027	CA	LEU	V	83	-40.997	84.403	51.859	1	141.28	C
ATOM	15028	CB	LEU	V	83	-39.956	84.884	50.825	1	146.29	C
ATOM	15029	CG	LEU	V	83	-40.252	85.034	49.32	1	161.68	C
ATOM	15030	CD1	LEU	V	83	-39.111	85.779	48.636	1	162.39	C
ATOM	15031	CD2	LEU	V	83	-40.48	83.702	48.612	1	169.45	C
ATOM	15032	C	LEU	V	83	-41.392	82.947	51.638	1	143.34	C
ATOM	15033	O	LEU	V	83	-40.521	82.09	51.469	1	149.74	O
ATOM	15034	N	ALA	V	84	-42.688	82.649	51.719	1	139.48	N
ATOM	15035	CA	ALA	V	84	-43.176	81.264	51.579	1	135.33	C
ATOM	15036	CB	ALA	V	84	-42.784	80.433	52.807	1	126.44	C
ATOM	15037	C	ALA	V	84	-44.702	81.213	51.341	1	127.28	C
ATOM	15038	O	ALA	V	84	-45.319	82.251	51.038	1	109.77	O
ATOM	15039	N	GLU	V	85	-45.281	80.005	51.447	1	114.87	N
ATOM	15040	CA	GLU	V	85	-46.735	79.798	51.369	1	109.09	C
ATOM	15041	CB	GLU	V	85	-47.086	78.483	50.653	1	113.98	C
ATOM	15042	CG	GLU	V	85	-47.213	78.631	49.15	1	122.6	C
ATOM	15043	CD	GLU	V	85	-47.975	77.503	48.488	1	129.85	C
ATOM	15044	OE1	GLU	V	85	-47.588	76.324	48.657	1	138.36	O
ATOM	15045	OE2	GLU	V	85	-48.951	77.81	47.774	1	129.18	O

ATOM	15046	C	GLU	V	85	-47.362	79.804	52.761	1	104.44	C
ATOM	15047	O	GLU	V	85	-46.927	79.047	53.639	1	92.33	O
ATOM	15048	N	TYR	V	86	-48.386	80.642	52.949	1	99.23	N
ATOM	15049	CA	TYR	V	86	-49.041	80.804	54.249	1	96.42	C
ATOM	15050	CB	TYR	V	86	-48.931	82.262	54.759	1	98.91	C
ATOM	15051	CG	TYR	V	86	-47.49	82.553	55.123	1	98.72	C
ATOM	15052	CD1	TYR	V	86	-46.96	82.081	56.309	1	100.46	C
ATOM	15053	CE1	TYR	V	86	-45.628	82.286	56.621	1	102.74	C
ATOM	15054	CZ	TYR	V	86	-44.797	82.923	55.744	1	98.18	C
ATOM	15055	OH	TYR	V	86	-43.489	83.082	56.124	1	101.63	O
ATOM	15056	CE2	TYR	V	86	-45.281	83.394	54.543	1	93.11	C
ATOM	15057	CD2	TYR	V	86	-46.62	83.196	54.23	1	97.65	C
ATOM	15058	C	TYR	V	86	-50.462	80.282	54.14	1	97.82	C
ATOM	15059	O	TYR	V	86	-51.232	80.707	53.266	1	95.7	O
ATOM	15060	N	PHE	V	87	-50.767	79.328	55.026	1	97.61	N
ATOM	15061	CA	PHE	V	87	-51.945	78.471	54.942	1	92.65	C
ATOM	15062	CB	PHE	V	87	-51.525	76.996	54.955	1	89.19	C
ATOM	15063	CG	PHE	V	87	-51.217	76.43	53.593	1	94.97	C
ATOM	15064	CD1	PHE	V	87	-52.235	76.177	52.684	1	108.97	C
ATOM	15065	CE1	PHE	V	87	-51.965	75.629	51.436	1	111.02	C
ATOM	15066	CZ	PHE	V	87	-50.662	75.334	51.08	1	111.02	C
ATOM	15067	CE2	PHE	V	87	-49.636	75.574	51.976	1	104.94	C
ATOM	15068	CD2	PHE	V	87	-49.917	76.114	53.227	1	103.21	C
ATOM	15069	C	PHE	V	87	-52.873	78.74	56.12	1	89.38	C
ATOM	15070	O	PHE	V	87	-52.454	78.682	57.273	1	86.66	O
ATOM	15071	N	CYS	V	88	-54.135	79.013	55.81	1	88.75	N
ATOM	15072	CA	CYS	V	88	-55.161	79.271	56.803	1	87.29	C
ATOM	15073	CB	CYS	V	88	-56.232	80.15	56.204	1	86.2	C
ATOM	15074	SG	CYS	V	88	-57.46	80.61	57.414	1	96.81	S
ATOM	15075	C	CYS	V	88	-55.77	77.951	57.21	1	93.45	C
ATOM	15076	O	CYS	V	88	-55.846	77.039	56.395	1	114.1	O
ATOM	15077	N	HIS	V	89	-56.25	77.878	58.45	1	95.58	N
ATOM	15078	CA	HIS	V	89	-56.562	76.602	59.151	1	91.93	C
ATOM	15079	CB	HIS	V	89	-55.269	76.205	59.872	1	89.1	C
ATOM	15080	CG	HIS	V	89	-55.362	75.056	60.832	1	87.97	C
ATOM	15081	ND1	HIS	V	89	-56.514	74.364	61.123	1	83.86	N
ATOM	15082	CE1	HIS	V	89	-56.251	73.425	62.016	1	93.33	C
ATOM	15083	NE2	HIS	V	89	-54.974	73.496	62.336	1	93.05	N
ATOM	15084	CD2	HIS	V	89	-54.401	74.516	61.619	1	97.87	C
ATOM	15085	C	HIS	V	89	-57.684	76.911	60.132	1	89.99	C
ATOM	15086	O	HIS	V	89	-57.744	78.03	60.595	1	112.24	O
ATOM	15087	N	GLN	V	90	-58.605	75.983	60.404	1	82.17	N
ATOM	15088	CA	GLN	V	90	-59.452	76.081	61.626	1	81.01	C
ATOM	15089	CB	GLN	V	90	-60.871	76.581	61.294	1	75.53	C

ATOM	15090	CG	GLN	V	90	-61.709	75.709	60.382	1	70.61	C
ATOM	15091	CD	GLN	V	90	-62.39	74.567	61.113	1	76.33	C
ATOM	15092	OE1	GLN	V	90	-62.039	74.213	62.243	1	71.69	O
ATOM	15093	NE2	GLN	V	90	-63.371	73.968	60.458	1	86.55	N
ATOM	15094	C	GLN	V	90	-59.519	74.835	62.522	1	80.65	C
ATOM	15095	O	GLN	V	90	-59.403	73.703	62.043	1	80.18	O
ATOM	15096	N	TYR	V	91	-59.751	75.051	63.82	1	81.31	N
ATOM	15097	CA	TYR	V	91	-59.94	73.939	64.779	1	89.02	C
ATOM	15098	CB	TYR	V	91	-58.765	73.825	65.79	1	87.11	C
ATOM	15099	CG	TYR	V	91	-58.345	75.148	66.315	1	91.8	C
ATOM	15100	CD1	TYR	V	91	-59.127	75.815	67.243	1	103.86	C
ATOM	15101	CE1	TYR	V	91	-58.773	77.065	67.716	1	110.44	C
ATOM	15102	CZ	TYR	V	91	-57.624	77.671	67.244	1	108.51	C
ATOM	15103	OH	TYR	V	91	-57.272	78.908	67.709	1	116.75	O
ATOM	15104	CE2	TYR	V	91	-56.841	77.039	66.299	1	103.8	C
ATOM	15105	CD2	TYR	V	91	-57.212	75.784	65.833	1	97.54	C
ATOM	15106	C	TYR	V	91	-61.301	74.003	65.491	1	85.15	C
ATOM	15107	O	TYR	V	91	-61.558	73.215	66.415	1	91.04	O
ATOM	15108	N	ASN	V	92	-62.196	74.88	65.049	1	76.28	N
ATOM	15109	CA	ASN	V	92	-63.483	74.977	65.718	1	86.62	C
ATOM	15110	CB	ASN	V	92	-64.2	76.258	65.355	1	92.68	C
ATOM	15111	CG	ASN	V	92	-65.533	76.366	66.064	1	92.93	C
ATOM	15112	OD1	ASN	V	92	-65.561	76.475	67.284	1	101.22	O
ATOM	15113	ND2	ASN	V	92	-66.637	76.314	65.317	1	86.17	N
ATOM	15114	C	ASN	V	92	-64.437	73.828	65.443	1	93.19	C
ATOM	15115	O	ASN	V	92	-64.556	72.922	66.26	1	97.98	O
ATOM	15116	N	SER	V	93	-65.059	73.874	64.261	1	105.92	N
ATOM	15117	CA	SER	V	93	-66.335	73.209	63.947	1	115.74	C
ATOM	15118	CB	SER	V	93	-66.925	73.729	62.626	1	124.04	C
ATOM	15119	OG	SER	V	93	-67.733	72.778	61.924	1	123.24	O
ATOM	15120	C	SER	V	93	-66.162	71.739	63.824	1	118.64	C
ATOM	15121	O	SER	V	93	-66.076	71.2	62.704	1	115.19	O
ATOM	15122	N	TYR	V	94	-66.154	71.083	64.982	1	130.87	N
ATOM	15123	CA	TYR	V	94	-65.88	69.663	65.056	1	133.07	C
ATOM	15124	CB	TYR	V	94	-67.12	68.785	64.622	1	153.37	C
ATOM	15125	CG	TYR	V	94	-68.33	69.499	63.948	1	168.75	C
ATOM	15126	CD1	TYR	V	94	-69.039	70.502	64.619	1	169.99	C
ATOM	15127	CE1	TYR	V	94	-70.118	71.163	64.038	1	162.81	C
ATOM	15128	CZ	TYR	V	94	-70.533	70.805	62.77	1	170.19	C
ATOM	15129	OH	TYR	V	94	-71.609	71.459	62.211	1	166.23	O
ATOM	15130	CE2	TYR	V	94	-69.867	69.8	62.077	1	173.83	C
ATOM	15131	CD2	TYR	V	94	-68.777	69.149	62.665	1	172.08	C
ATOM	15132	C	TYR	V	94	-64.61	69.474	64.206	1	110.25	C
ATOM	15133	O	TYR	V	94	-63.977	70.477	63.779	1	77.23	O

ATOM	15134	N	PRO	V	95	-64.164	68.224	64.031	1	100.79	N
ATOM	15135	CA	PRO	V	95	-63.669	68.167	62.684	1	104.93	C
ATOM	15136	CB	PRO	V	95	-62.949	66.823	62.67	1	106.28	C
ATOM	15137	CG	PRO	V	95	-62.328	66.771	64.054	1	89.49	C
ATOM	15138	CD	PRO	V	95	-63.494	67.224	64.891	1	95.23	C
ATOM	15139	C	PRO	V	95	-64.857	68.352	61.665	1	105.78	C
ATOM	15140	O	PRO	V	95	-65.947	67.821	61.843	1	101.88	O
ATOM	15141	N	LEU	V	96	-64.637	69.057	60.57	1	103.75	N
ATOM	15142	CA	LEU	V	96	-63.353	69.143	59.918	1	105.5	C
ATOM	15143	CB	LEU	V	96	-63.463	68.395	58.628	1	106.82	C
ATOM	15144	CG	LEU	V	96	-64.206	67.087	58.979	1	109.1	C
ATOM	15145	CD1	LEU	V	96	-65.723	67.161	58.758	1	108.84	C
ATOM	15146	CD2	LEU	V	96	-63.66	65.918	58.214	1	121.15	C
ATOM	15147	C	LEU	V	96	-63.112	70.624	59.779	1	116.13	C
ATOM	15148	O	LEU	V	96	-63.927	71.326	59.16	1	122.52	O
ATOM	15149	N	THR	V	97	-61.98	71.124	60.282	1	123.52	N
ATOM	15150	CA	THR	V	97	-60.604	70.718	59.928	1	113.32	C
ATOM	15151	CB	THR	V	97	-60.056	69.356	60.447	1	110.8	C
ATOM	15152	OG1	THR	V	97	-60.742	68.931	61.618	1	130.26	O
ATOM	15153	CG2	THR	V	97	-58.605	69.512	60.84	1	103.1	C
ATOM	15154	C	THR	V	97	-60.583	70.863	58.419	1	96.79	C
ATOM	15155	O	THR	V	97	-60.507	69.889	57.679	1	91.69	O
ATOM	15156	N	PHE	V	98	-60.747	72.125	58.018	1	88.17	N
ATOM	15157	CA	PHE	V	98	-60.653	72.58	56.664	1	93.46	C
ATOM	15158	CB	PHE	V	98	-62.019	73.081	56.201	1	100.32	C
ATOM	15159	CG	PHE	V	98	-62.699	72.171	55.189	1	138.37	C
ATOM	15160	CD1	PHE	V	98	-62.952	70.821	55.484	1	156.37	C
ATOM	15161	CE1	PHE	V	98	-63.583	69.984	54.554	1	154.07	C
ATOM	15162	CZ	PHE	V	98	-63.98	70.49	53.317	1	151.86	C
ATOM	15163	CE2	PHE	V	98	-63.744	71.827	53.005	1	145.21	C
ATOM	15164	CD2	PHE	V	98	-63.109	72.66	53.933	1	149.16	C
ATOM	15165	C	PHE	V	98	-59.611	73.699	56.63	1	94.72	C
ATOM	15166	O	PHE	V	98	-59.869	74.772	57.161	1	105.17	O
ATOM	15167	N	GLY	V	99	-58.431	73.423	56.044	1	91.55	N
ATOM	15168	CA	GLY	V	99	-57.472	74.451	55.606	1	83.72	C
ATOM	15169	C	GLY	V	99	-58.022	75.329	54.462	1	86.71	C
ATOM	15170	O	GLY	V	99	-59.238	75.391	54.215	1	82.82	O
ATOM	15171	N	ALA	V	100	-57.143	76.022	53.748	1	87.79	N
ATOM	15172	CA	ALA	V	100	-57.595	76.908	52.659	1	99.93	C
ATOM	15173	CB	ALA	V	100	-58.116	78.209	53.238	1	109.2	C
ATOM	15174	C	ALA	V	100	-56.512	77.198	51.617	1	101.94	C
ATOM	15175	O	ALA	V	100	-55.335	76.926	51.862	1	97.48	O
ATOM	15176	N	GLY	V	101	-56.93	77.774	50.477	1	98.02	N
ATOM	15177	CA	GLY	V	101	-56.074	77.985	49.29	1	95.62	C

ATOM	15178	C	GLY	V	101	-54.609	78.175	49.622	1	99.47	C
ATOM	15179	O	GLY	V	101	-53.861	77.217	49.754	1	90.39	O
ATOM	15180	N	THR	V	102	-54.22	79.427	49.769	1	115.86	N
ATOM	15181	CA	THR	V	102	-52.91	79.834	50.298	1	134.77	C
ATOM	15182	CB	THR	V	102	-51.707	78.985	49.789	1	146	C
ATOM	15183	OG1	THR	V	102	-50.464	79.575	50.215	1	147.17	O
ATOM	15184	CG2	THR	V	102	-51.715	78.866	48.262	1	151.43	C
ATOM	15185	C	THR	V	102	-52.695	81.277	49.874	1	136.54	C
ATOM	15186	O	THR	V	102	-53.484	81.835	49.096	1	138.1	O
ATOM	15187	N	LYS	V	103	-51.642	81.88	50.41	1	124.87	N
ATOM	15188	CA	LYS	V	103	-51.029	83.025	49.77	1	120.75	C
ATOM	15189	CB	LYS	V	103	-51.327	84.307	50.528	1	119.17	C
ATOM	15190	CG	LYS	V	103	-52.823	84.554	50.685	1	119.65	C
ATOM	15191	CD	LYS	V	103	-53.224	85.985	50.404	1	125.14	C
ATOM	15192	CE	LYS	V	103	-54.732	86.134	50.491	1	130.27	C
ATOM	15193	NZ	LYS	V	103	-55.254	85.954	51.872	1	131.51	N
ATOM	15194	C	LYS	V	103	-49.549	82.714	49.671	1	119.48	C
ATOM	15195	O	LYS	V	103	-49.031	81.921	50.469	1	96.13	O
ATOM	15196	N	LEU	V	104	-48.909	83.288	48.646	1	127.74	N
ATOM	15197	CA	LEU	V	104	-47.495	83.065	48.342	1	134	C
ATOM	15198	CB	LEU	V	104	-47.322	82.326	46.997	1	142.22	C
ATOM	15199	CG	LEU	V	104	-46.197	81.268	46.873	1	145.31	C
ATOM	15200	CD1	LEU	V	104	-46.229	80.575	45.509	1	142.29	C
ATOM	15201	CD2	LEU	V	104	-44.805	81.825	47.169	1	148.06	C
ATOM	15202	C	LEU	V	104	-46.815	84.429	48.302	1	134.16	C
ATOM	15203	O	LEU	V	104	-47.348	85.38	47.711	1	119.15	O
ATOM	15204	N	GLU	V	105	-45.638	84.507	48.924	1	137.07	N
ATOM	15205	CA	GLU	V	105	-44.909	85.758	49.066	1	142.3	C
ATOM	15206	CB	GLU	V	105	-44.12	85.777	50.38	1	153.49	C
ATOM	15207	CG	GLU	V	105	-44.451	86.965	51.261	1	168.2	C
ATOM	15208	CD	GLU	V	105	-45.754	86.762	52.011	1	180.73	C
ATOM	15209	OE1	GLU	V	105	-45.735	86.019	53.012	1	194.4	O
ATOM	15210	OE2	GLU	V	105	-46.79	87.335	51.611	1	172.33	O
ATOM	15211	C	GLU	V	105	-43.951	85.937	47.896	1	140.33	C
ATOM	15212	O	GLU	V	105	-43.143	85.053	47.61	1	134.92	O
ATOM	15213	N	LEU	V	106	-44.049	87.081	47.227	1	143.75	N
ATOM	15214	CA	LEU	V	106	-43.115	87.465	46.179	1	150.18	C
ATOM	15215	CB	LEU	V	106	-43.817	87.544	44.814	1	161.7	C
ATOM	15216	CG	LEU	V	106	-44.229	86.208	44.165	1	168.56	C
ATOM	15217	CD1	LEU	V	106	-45.604	85.759	44.641	1	171.62	C
ATOM	15218	CD2	LEU	V	106	-44.205	86.26	42.637	1	169.27	C
ATOM	15219	C	LEU	V	106	-42.523	88.822	46.549	1	149.16	C
ATOM	15220	O	LEU	V	106	-43.245	89.719	46.988	1	142.69	O
ATOM	15221	N	LYS	V	107	-41.207	88.96	46.394	1	144.54	N

ATOM	15222	CA	LYS	V	107	-40.555	90.264	46.487	1	138.38	C
ATOM	15223	CB	LYS	V	107	-39.026	90.118	46.417	1	138.38	C
ATOM	15224	CG	LYS	V	107	-38.233	91.392	46.702	1	153.16	C
ATOM	15225	CD	LYS	V	107	-38.253	91.784	48.182	1	165.09	C
ATOM	15226	CE	LYS	V	107	-37.424	93.039	48.465	1	159.58	C
ATOM	15227	NZ	LYS	V	107	-38.081	94.298	48.009	1	152.17	N
ATOM	15228	C	LYS	V	107	-41.08	91.132	45.337	1	133.1	C
ATOM	15229	O	LYS	V	107	-41.293	90.637	44.221	1	124.01	O
ATOM	15230	N	ARG	V	108	-41.324	92.409	45.627	1	129.16	N
ATOM	15231	CA	ARG	V	108	-41.806	93.36	44.616	1	129.16	C
ATOM	15232	CB	ARG	V	108	-42.641	94.477	45.279	1	133.78	C
ATOM	15233	CG	ARG	V	108	-42.895	95.71	44.416	1	139.27	C
ATOM	15234	CD	ARG	V	108	-44.194	96.433	44.737	1	146.07	C
ATOM	15235	NE	ARG	V	108	-45.241	96.085	43.774	1	152.19	N
ATOM	15236	CZ	ARG	V	108	-45.286	96.487	42.498	1	153.03	C
ATOM	15237	NH1	ARG	V	108	-44.336	97.268	41.98	1	148.43	N
ATOM	15238	NH2	ARG	V	108	-46.292	96.089	41.719	1	159.27	N
ATOM	15239	C	ARG	V	108	-40.625	93.915	43.795	1	121.92	C
ATOM	15240	O	ARG	V	108	-39.47	93.875	44.238	1	121.44	O
ATOM	15241	N	THR	V	109	-40.932	94.356	42.575	1	108.09	N
ATOM	15242	CA	THR	V	109	-40.021	95.098	41.702	1	112.25	C
ATOM	15243	CB	THR	V	109	-39.138	94.12	40.836	1	113.17	C
ATOM	15244	OG1	THR	V	109	-37.802	94.07	41.367	1	110.38	O
ATOM	15245	CG2	THR	V	109	-39.05	94.464	39.316	1	110.71	C
ATOM	15246	C	THR	V	109	-40.918	96.08	40.921	1	122.76	C
ATOM	15247	O	THR	V	109	-42.145	96.063	41.092	1	111.63	O
ATOM	15248	N	VAL	V	110	-40.297	96.974	40.143	1	138.09	N
ATOM	15249	CA	VAL	V	110	-41.013	97.901	39.23	1	132.79	C
ATOM	15250	CB	VAL	V	110	-40.083	99.042	38.679	1	130.9	C
ATOM	15251	CG1	VAL	V	110	-38.713	98.537	38.209	1	124.21	C
ATOM	15252	CG2	VAL	V	110	-40.782	99.871	37.594	1	135.08	C
ATOM	15253	C	VAL	V	110	-41.823	97.196	38.109	1	131.77	C
ATOM	15254	O	VAL	V	110	-43.059	97.214	38.152	1	139.25	O
ATOM	15255	N	ALA	V	111	-41.147	96.574	37.138	1	116.95	N
ATOM	15256	CA	ALA	V	111	-41.808	95.951	35.979	1	105.08	C
ATOM	15257	CB	ALA	V	111	-42.384	97.023	35.057	1	98.14	C
ATOM	15258	C	ALA	V	111	-40.796	95.092	35.23	1	108.72	C
ATOM	15259	O	ALA	V	111	-39.722	94.782	35.777	1	100.95	O
ATOM	15260	N	ALA	V	112	-41.18	94.664	34.019	1	116.73	N
ATOM	15261	CA	ALA	V	112	-40.264	94.212	32.942	1	122.67	C
ATOM	15262	CB	ALA	V	112	-39.202	93.248	33.458	1	121.44	C
ATOM	15263	C	ALA	V	112	-41.037	93.545	31.802	1	129.89	C
ATOM	15264	O	ALA	V	112	-42.018	92.847	32.052	1	142.71	O
ATOM	15265	N	PRO	V	113	-40.608	93.761	30.547	1	141.47	N

ATOM	15266	CA	PRO	V	113	-41.046	92.813	29.524	1	143.22	C
ATOM	15267	CB	PRO	V	113	-40.756	93.536	28.196	1	150.35	C
ATOM	15268	CG	PRO	V	113	-40.473	94.954	28.549	1	154.33	C
ATOM	15269	CD	PRO	V	113	-39.941	94.933	29.957	1	150.9	C
ATOM	15270	C	PRO	V	113	-40.25	91.515	29.618	1	133.32	C
ATOM	15271	O	PRO	V	113	-39.174	91.464	30.236	1	117.63	O
ATOM	15272	N	SER	V	114	-40.796	90.479	29.002	1	127.76	N
ATOM	15273	CA	SER	V	114	-40.145	89.184	28.931	1	136.34	C
ATOM	15274	CB	SER	V	114	-41.193	88.07	28.968	1	140.77	C
ATOM	15275	OG	SER	V	114	-42.489	88.574	28.673	1	133.98	O
ATOM	15276	C	SER	V	114	-39.325	89.112	27.657	1	138.48	C
ATOM	15277	O	SER	V	114	-39.566	89.879	26.729	1	139.43	O
ATOM	15278	N	VAL	V	115	-38.349	88.205	27.631	1	144.22	N
ATOM	15279	CA	VAL	V	115	-37.523	87.943	26.439	1	140.11	C
ATOM	15280	CB	VAL	V	115	-36.02	87.721	26.821	1	154.47	C
ATOM	15281	CG1	VAL	V	115	-35.126	87.834	25.585	1	160.51	C
ATOM	15282	CG2	VAL	V	115	-35.555	88.715	27.896	1	149.72	C
ATOM	15283	C	VAL	V	115	-38.08	86.779	25.573	1	117.99	C
ATOM	15284	O	VAL	V	115	-37.537	85.669	25.573	1	100.9	O
ATOM	15285	N	PHE	V	116	-39.192	87.057	24.883	1	111.48	N
ATOM	15286	CA	PHE	V	116	-39.681	86.325	23.684	1	128.28	C
ATOM	15287	CB	PHE	V	116	-40.331	87.348	22.708	1	153.43	C
ATOM	15288	CG	PHE	V	116	-39.356	88.399	22.137	1	179.59	C
ATOM	15289	CD1	PHE	V	116	-38.788	89.402	22.942	1	178.8	C
ATOM	15290	CE1	PHE	V	116	-37.904	90.34	22.404	1	169.29	C
ATOM	15291	CZ	PHE	V	116	-37.575	90.299	21.054	1	162.53	C
ATOM	15292	CE2	PHE	V	116	-38.125	89.32	20.241	1	159.19	C
ATOM	15293	CD2	PHE	V	116	-39.008	88.389	20.777	1	173.97	C
ATOM	15294	C	PHE	V	116	-38.633	85.458	22.928	1	127.4	C
ATOM	15295	O	PHE	V	116	-37.894	85.933	22.062	1	137.85	O
ATOM	15296	N	ILE	V	117	-38.558	84.182	23.27	1	121.89	N
ATOM	15297	CA	ILE	V	117	-37.571	83.271	22.673	1	125.24	C
ATOM	15298	CB	ILE	V	117	-36.371	83.049	23.628	1	114.35	C
ATOM	15299	CG1	ILE	V	117	-35.398	84.234	23.511	1	110.88	C
ATOM	15300	CD1	ILE	V	117	-34.255	84.24	24.509	1	108.27	C
ATOM	15301	CG2	ILE	V	117	-35.646	81.737	23.326	1	110.39	C
ATOM	15302	C	ILE	V	117	-38.305	81.981	22.322	1	140.38	C
ATOM	15303	O	ILE	V	117	-39.163	81.55	23.083	1	172.46	O
ATOM	15304	N	PHE	V	118	-37.958	81.356	21.193	1	141.3	N
ATOM	15305	CA	PHE	V	118	-38.864	80.404	20.545	1	130.69	C
ATOM	15306	CB	PHE	V	118	-39.867	81.245	19.723	1	131.75	C
ATOM	15307	CG	PHE	V	118	-40.522	80.501	18.615	1	151.21	C
ATOM	15308	CD1	PHE	V	118	-41.174	79.306	18.863	1	167.03	C
ATOM	15309	CE1	PHE	V	118	-41.76	78.595	17.834	1	187.85	C

ATOM	15310	CZ	PHE	V	118	-41.699	79.068	16.539	1	199.72	C
ATOM	15311	CE2	PHE	V	118	-41.048	80.264	16.278	1	203.86	C
ATOM	15312	CD2	PHE	V	118	-40.462	80.975	17.312	1	181.83	C
ATOM	15313	C	PHE	V	118	-38.182	79.298	19.696	1	118.53	C
ATOM	15314	O	PHE	V	118	-38.121	79.416	18.488	1	123.46	O
ATOM	15315	N	PRO	V	119	-37.671	78.214	20.326	1	112.3	N
ATOM	15316	CA	PRO	V	119	-37.18	77.056	19.523	1	111.69	C
ATOM	15317	CB	PRO	V	119	-36.389	76.23	20.563	1	106.15	C
ATOM	15318	CG	PRO	V	119	-36.026	77.198	21.653	1	102.83	C
ATOM	15319	CD	PRO	V	119	-37.174	78.164	21.721	1	106.9	C
ATOM	15320	C	PRO	V	119	-38.274	76.169	18.823	1	119.12	C
ATOM	15321	O	PRO	V	119	-39.314	75.927	19.428	1	119.79	O
ATOM	15322	N	PRO	V	120	-38.069	75.745	17.534	1	126.69	N
ATOM	15323	CA	PRO	V	120	-38.717	74.515	17.024	1	115.37	C
ATOM	15324	CB	PRO	V	120	-38.935	74.816	15.529	1	108.32	C
ATOM	15325	CG	PRO	V	120	-38.846	76.3	15.413	1	113.22	C
ATOM	15326	CD	PRO	V	120	-37.76	76.638	16.399	1	125.03	C
ATOM	15327	C	PRO	V	120	-37.864	73.253	17.222	1	116.86	C
ATOM	15328	O	PRO	V	120	-36.755	73.342	17.762	1	124.38	O
ATOM	15329	N	SER	V	121	-38.394	72.113	16.757	1	113.8	N
ATOM	15330	CA	SER	V	121	-37.905	70.715	17.03	1	106.73	C
ATOM	15331	CB	SER	V	121	-38.91	69.748	16.403	1	93.55	C
ATOM	15332	OG	SER	V	121	-40.051	70.469	15.979	1	91.83	O
ATOM	15333	C	SER	V	121	-36.487	70.324	16.539	1	113.25	C
ATOM	15334	O	SER	V	121	-35.636	71.186	16.293	1	127.59	O
ATOM	15335	N	ASP	V	122	-36.225	69.023	16.417	1	117.91	N
ATOM	15336	CA	ASP	V	122	-35.022	68.556	15.71	1	142.88	C
ATOM	15337	CB	ASP	V	122	-33.873	68.421	16.712	1	149.43	C
ATOM	15338	CG	ASP	V	122	-34.038	67.231	17.623	1	153.42	C
ATOM	15339	OD1	ASP	V	122	-35.049	67.21	18.365	1	160.94	O
ATOM	15340	OD2	ASP	V	122	-33.162	66.331	17.592	1	140.01	O
ATOM	15341	C	ASP	V	122	-35.268	67.237	14.945	1	148.14	C
ATOM	15342	O	ASP	V	122	-36.419	66.85	14.72	1	147.92	O
ATOM	15343	N	GLU	V	123	-34.19	66.568	14.528	1	146.69	N
ATOM	15344	CA	GLU	V	123	-34.282	65.225	13.935	1	153.74	C
ATOM	15345	CB	GLU	V	123	-32.9	64.75	13.445	1	152.44	C
ATOM	15346	CG	GLU	V	123	-32.851	63.298	12.975	1	140.31	C
ATOM	15347	CD	GLU	V	123	-31.689	63.025	12.045	1	134.8	C
ATOM	15348	OE1	GLU	V	123	-30.568	63.505	12.324	1	134.53	O
ATOM	15349	OE2	GLU	V	123	-31.901	62.326	11.033	1	132.58	O
ATOM	15350	C	GLU	V	123	-34.899	64.184	14.88	1	152.69	C
ATOM	15351	O	GLU	V	123	-36.032	63.746	14.656	1	157.72	O
ATOM	15352	N	GLN	V	124	-34.149	63.807	15.921	1	142.6	N
ATOM	15353	CA	GLN	V	124	-34.544	62.773	16.896	1	138.73	C

ATOM	15354	CB	GLN	V	124	-33.788	62.995	18.214	1	138.54	C
ATOM	15355	CG	GLN	V	124	-32.509	62.187	18.369	1	140.42	C
ATOM	15356	CD	GLN	V	124	-32.651	61.003	19.319	1	140.64	C
ATOM	15357	OE1	GLN	V	124	-31.763	60.75	20.128	1	139.54	O
ATOM	15358	NE2	GLN	V	124	-33.767	60.278	19.23	1	139.07	N
ATOM	15359	C	GLN	V	124	-36.046	62.694	17.198	1	140.83	C
ATOM	15360	O	GLN	V	124	-36.629	61.608	17.214	1	146.84	O
ATOM	15361	N	LEU	V	125	-36.653	63.855	17.424	1	134.83	N
ATOM	15362	CA	LEU	V	125	-38.062	63.965	17.807	1	139.73	C
ATOM	15363	CB	LEU	V	125	-38.224	65.23	18.655	1	146.21	C
ATOM	15364	CG	LEU	V	125	-39.526	65.569	19.395	1	146.87	C
ATOM	15365	CD1	LEU	V	125	-40.16	64.364	20.083	1	146.28	C
ATOM	15366	CD2	LEU	V	125	-39.251	66.705	20.376	1	142.97	C
ATOM	15367	C	LEU	V	125	-39.051	63.952	16.616	1	136.5	C
ATOM	15368	O	LEU	V	125	-40.218	63.589	16.786	1	144.93	O
ATOM	15369	N	LYS	V	126	-38.601	64.354	15.428	1	124.64	N
ATOM	15370	CA	LYS	V	126	-39.377	64.125	14.196	1	123.41	C
ATOM	15371	CB	LYS	V	126	-38.865	64.991	13.053	1	122.41	C
ATOM	15372	CG	LYS	V	126	-39.76	66.163	12.747	1	118.01	C
ATOM	15373	CD	LYS	V	126	-39.795	67.163	13.882	1	112.03	C
ATOM	15374	CE	LYS	V	126	-40.408	68.469	13.408	1	109.4	C
ATOM	15375	NZ	LYS	V	126	-41.744	68.277	12.774	1	114.03	N
ATOM	15376	C	LYS	V	126	-39.327	62.663	13.758	1	131.78	C
ATOM	15377	O	LYS	V	126	-40.314	62.118	13.238	1	113.73	O
ATOM	15378	N	SER	V	127	-38.146	62.068	13.932	1	144.72	N
ATOM	15379	CA	SER	V	127	-37.921	60.636	13.744	1	149.03	C
ATOM	15380	CB	SER	V	127	-36.425	60.324	13.871	1	142.12	C
ATOM	15381	OG	SER	V	127	-36.167	58.949	13.668	1	145.83	O
ATOM	15382	C	SER	V	127	-38.715	59.811	14.762	1	154.58	C
ATOM	15383	O	SER	V	127	-39.342	58.809	14.4	1	164.52	O
ATOM	15384	N	GLY	V	128	-38.686	60.244	16.026	1	146.56	N
ATOM	15385	CA	GLY	V	128	-39.456	59.62	17.108	1	136.05	C
ATOM	15386	C	GLY	V	128	-40.962	59.684	16.915	1	127.8	C
ATOM	15387	O	GLY	V	128	-41.687	58.885	17.5	1	125.03	O
ATOM	15388	N	THR	V	129	-41.416	60.654	16.114	1	121.48	N
ATOM	15389	CA	THR	V	129	-42.807	60.795	15.649	1	128.79	C
ATOM	15390	CB	THR	V	129	-43.527	59.436	15.385	1	137.91	C
ATOM	15391	OG1	THR	V	129	-42.606	58.484	14.83	1	143.75	O
ATOM	15392	CG2	THR	V	129	-44.723	59.601	14.416	1	137.43	C
ATOM	15393	C	THR	V	129	-43.669	61.693	16.557	1	129.7	C
ATOM	15394	O	THR	V	129	-44.715	62.172	16.119	1	133.09	O
ATOM	15395	N	ALA	V	130	-43.224	61.954	17.79	1	137.43	N
ATOM	15396	CA	ALA	V	130	-44.02	62.727	18.762	1	140.62	C
ATOM	15397	CB	ALA	V	130	-43.425	62.622	20.166	1	136.01	C

ATOM	15398	C	ALA	V	130	-44.193	64.198	18.361	1	144.93	C
ATOM	15399	O	ALA	V	130	-45.325	64.658	18.238	1	128.46	O
ATOM	15400	N	SER	V	131	-43.076	64.903	18.145	1	153.78	N
ATOM	15401	CA	SER	V	131	-43.03	66.347	17.788	1	154.75	C
ATOM	15402	CB	SER	V	131	-43.69	66.586	16.421	1	163.01	C
ATOM	15403	OG	SER	V	131	-44.256	67.883	16.346	1	174.12	O
ATOM	15404	C	SER	V	131	-43.576	67.368	18.827	1	148.42	C
ATOM	15405	O	SER	V	131	-44.711	67.254	19.297	1	145.12	O
ATOM	15406	N	VAL	V	132	-42.771	68.389	19.137	1	131.28	N
ATOM	15407	CA	VAL	V	132	-43.165	69.442	20.087	1	123.08	C
ATOM	15408	CB	VAL	V	132	-43.024	68.961	21.554	1	127.61	C
ATOM	15409	CG1	VAL	V	132	-41.702	68.245	21.779	1	118.62	C
ATOM	15410	CG2	VAL	V	132	-43.205	70.104	22.555	1	134.07	C
ATOM	15411	C	VAL	V	132	-42.372	70.734	19.873	1	116.24	C
ATOM	15412	O	VAL	V	132	-41.137	70.703	19.769	1	109.96	O
ATOM	15413	N	VAL	V	133	-43.093	71.863	19.852	1	114.09	N
ATOM	15414	CA	VAL	V	133	-42.524	73.176	19.479	1	113.86	C
ATOM	15415	CB	VAL	V	133	-43.588	74.125	18.872	1	113.4	C
ATOM	15416	CG1	VAL	V	133	-42.989	75.477	18.5	1	111.29	C
ATOM	15417	CG2	VAL	V	133	-44.252	73.476	17.657	1	109.77	C
ATOM	15418	C	VAL	V	133	-41.751	73.804	20.648	1	105.64	C
ATOM	15419	O	VAL	V	133	-40.619	73.371	20.858	1	119.76	O
ATOM	15420	N	CYS	V	134	-42.327	74.778	21.383	1	92.81	N
ATOM	15421	CA	CYS	V	134	-41.68	75.476	22.523	1	93.17	C
ATOM	15422	CB	CYS	V	134	-40.38	74.769	22.959	1	92.13	C
ATOM	15423	SG	CYS	V	134	-39.395	75.64	24.166	1	104.17	S
ATOM	15424	C	CYS	V	134	-41.388	76.983	22.353	1	93.54	C
ATOM	15425	O	CYS	V	134	-40.473	77.346	21.631	1	109.42	O
ATOM	15426	N	LEU	V	135	-42.14	77.849	23.039	1	95.1	N
ATOM	15427	CA	LEU	V	135	-41.681	79.227	23.352	1	97.41	C
ATOM	15428	CB	LEU	V	135	-42.844	80.231	23.314	1	97.97	C
ATOM	15429	CG	LEU	V	135	-42.789	81.729	23.684	1	107.61	C
ATOM	15430	CD1	LEU	V	135	-42.08	82.557	22.615	1	114.77	C
ATOM	15431	CD2	LEU	V	135	-44.171	82.313	23.991	1	113.38	C
ATOM	15432	C	LEU	V	135	-40.979	79.254	24.724	1	104.42	C
ATOM	15433	O	LEU	V	135	-40.966	78.258	25.469	1	99	O
ATOM	15434	N	LEU	V	136	-40.347	80.388	25.013	1	105.28	N
ATOM	15435	CA	LEU	V	136	-39.811	80.708	26.328	1	103.83	C
ATOM	15436	CB	LEU	V	136	-38.327	80.33	26.413	1	100.45	C
ATOM	15437	CG	LEU	V	136	-37.647	80.282	27.796	1	96.4	C
ATOM	15438	CD1	LEU	V	136	-36.158	80.075	27.598	1	89.64	C
ATOM	15439	CD2	LEU	V	136	-37.912	81.481	28.699	1	90.01	C
ATOM	15440	C	LEU	V	136	-39.958	82.2	26.516	1	104.79	C
ATOM	15441	O	LEU	V	136	-39.357	82.959	25.76	1	125.81	O

ATOM	15442	N	ASN	V	137	-40.748	82.618	27.506	1	111.57	N
ATOM	15443	CA	ASN	V	137	-40.754	84.019	27.958	1	122.47	C
ATOM	15444	CB	ASN	V	137	-42.181	84.518	28.253	1	116.14	C
ATOM	15445	CG	ASN	V	137	-43.007	84.737	26.983	1	116.85	C
ATOM	15446	OD1	ASN	V	137	-44.178	84.384	26.937	1	113.89	O
ATOM	15447	ND2	ASN	V	137	-42.398	85.316	25.949	1	123.72	N
ATOM	15448	C	ASN	V	137	-39.833	84.15	29.175	1	127.24	C
ATOM	15449	O	ASN	V	137	-39.993	83.415	30.152	1	140.22	O
ATOM	15450	N	ASN	V	138	-38.858	85.063	29.093	1	125.39	N
ATOM	15451	CA	ASN	V	138	-37.757	85.127	30.065	1	121.89	C
ATOM	15452	CB	ASN	V	138	-36.438	84.764	29.391	1	112	C
ATOM	15453	CG	ASN	V	138	-35.489	84.07	30.34	1	110.27	C
ATOM	15454	OD1	ASN	V	138	-35.113	84.62	31.362	1	109.62	O
ATOM	15455	ND2	ASN	V	138	-35.114	82.849	30.014	1	112.6	N
ATOM	15456	C	ASN	V	138	-37.579	86.449	30.818	1	127.22	C
ATOM	15457	O	ASN	V	138	-37.622	87.53	30.225	1	121.58	O
ATOM	15458	N	PHE	V	139	-37.333	86.314	32.123	1	129.06	N
ATOM	15459	CA	PHE	V	139	-37.166	87.414	33.064	1	122	C
ATOM	15460	CB	PHE	V	139	-35.748	87.97	32.992	1	118.97	C
ATOM	15461	CG	PHE	V	139	-34.698	86.936	33.2	1	111.97	C
ATOM	15462	CD1	PHE	V	139	-34.833	85.99	34.209	1	111.04	C
ATOM	15463	CE1	PHE	V	139	-33.877	85.024	34.397	1	117.04	C
ATOM	15464	CZ	PHE	V	139	-32.754	84.983	33.58	1	120.02	C
ATOM	15465	CE2	PHE	V	139	-32.601	85.924	32.577	1	125.08	C
ATOM	15466	CD2	PHE	V	139	-33.574	86.896	32.389	1	118.6	C
ATOM	15467	C	PHE	V	139	-38.195	88.515	32.915	1	124.92	C
ATOM	15468	O	PHE	V	139	-38.073	89.407	32.068	1	133.69	O
ATOM	15469	N	TYR	V	140	-39.221	88.423	33.747	1	122.66	N
ATOM	15470	CA	TYR	V	140	-40.288	89.396	33.763	1	128.54	C
ATOM	15471	CB	TYR	V	140	-41.149	89.301	32.487	1	125.51	C
ATOM	15472	CG	TYR	V	140	-42.126	88.156	32.518	1	128.12	C
ATOM	15473	CD1	TYR	V	140	-41.675	86.83	32.463	1	131.93	C
ATOM	15474	CE1	TYR	V	140	-42.563	85.771	32.523	1	133.95	C
ATOM	15475	CZ	TYR	V	140	-43.924	86.03	32.65	1	142.52	C
ATOM	15476	OH	TYR	V	140	-44.795	84.967	32.7	1	166.14	O
ATOM	15477	CE2	TYR	V	140	-44.393	87.338	32.725	1	128.66	C
ATOM	15478	CD2	TYR	V	140	-43.495	88.387	32.662	1	125.03	C
ATOM	15479	C	TYR	V	140	-41.157	89.164	34.999	1	137.19	C
ATOM	15480	O	TYR	V	140	-41.678	88.069	35.219	1	167.46	O
ATOM	15481	N	PRO	V	141	-41.234	90.168	35.864	1	130.74	N
ATOM	15482	CA	PRO	V	141	-42.427	90.431	36.625	1	127.12	C
ATOM	15483	CB	PRO	V	141	-41.874	91.085	37.898	1	128.26	C
ATOM	15484	CG	PRO	V	141	-40.472	90.621	37.986	1	131.3	C
ATOM	15485	CD	PRO	V	141	-40.06	90.713	36.548	1	135.36	C

ATOM	15486	C	PRO	V	141	-43.22	91.41	35.776	1	121.07	C
ATOM	15487	O	PRO	V	141	-42.992	91.479	34.577	1	119.28	O
ATOM	15488	N	ARG	V	142	-44.188	92.118	36.329	1	123.59	N
ATOM	15489	CA	ARG	V	142	-44.951	91.706	37.474	1	124.36	C
ATOM	15490	CB	ARG	V	142	-45.133	92.867	38.479	1	126.61	C
ATOM	15491	CG	ARG	V	142	-43.973	93.231	39.406	1	122.7	C
ATOM	15492	CD	ARG	V	142	-44.237	92.83	40.847	1	135.22	C
ATOM	15493	NE	ARG	V	142	-44.403	91.387	41.014	1	158.47	N
ATOM	15494	CZ	ARG	V	142	-43.424	90.498	41.219	1	181.41	C
ATOM	15495	NH1	ARG	V	142	-42.139	90.863	41.283	1	185.16	N
ATOM	15496	NH2	ARG	V	142	-43.734	89.209	41.352	1	191.7	N
ATOM	15497	C	ARG	V	142	-46.268	91.448	36.763	1	122.52	C
ATOM	15498	O	ARG	V	142	-46.853	92.432	36.287	1	103.95	O
ATOM	15499	N	GLU	V	143	-46.755	90.211	36.577	1	136.48	N
ATOM	15500	CA	GLU	V	143	-46.094	88.884	36.769	1	134.25	C
ATOM	15501	CB	GLU	V	143	-45.89	88.513	38.253	1	137.71	C
ATOM	15502	CG	GLU	V	143	-44.794	87.474	38.494	1	137.02	C
ATOM	15503	CD	GLU	V	143	-45.14	86.115	37.913	1	137.1	C
ATOM	15504	OE1	GLU	V	143	-46.115	85.492	38.385	1	142.75	O
ATOM	15505	OE2	GLU	V	143	-44.467	85.679	36.96	1	124.03	O
ATOM	15506	C	GLU	V	143	-46.996	87.817	36.085	1	127.51	C
ATOM	15507	O	GLU	V	143	-46.528	86.994	35.287	1	105.56	O
ATOM	15508	N	ALA	V	144	-48.286	87.837	36.441	1	131.45	N
ATOM	15509	CA	ALA	V	144	-49.355	87.169	35.682	1	141.13	C
ATOM	15510	CB	ALA	V	144	-50.721	87.596	36.21	1	141.03	C
ATOM	15511	C	ALA	V	144	-49.245	87.499	34.194	1	141.37	C
ATOM	15512	O	ALA	V	144	-49.037	88.654	33.829	1	133.38	O
ATOM	15513	N	LYS	V	145	-49.411	86.488	33.344	1	154.2	N
ATOM	15514	CA	LYS	V	145	-48.959	86.574	31.957	1	166.71	C
ATOM	15515	CB	LYS	V	145	-47.621	85.855	31.859	1	174.44	C
ATOM	15516	CG	LYS	V	145	-46.972	85.877	30.488	1	190.13	C
ATOM	15517	CD	LYS	V	145	-46.941	87.276	29.892	1	210.73	C
ATOM	15518	CE	LYS	V	145	-45.812	87.432	28.889	1	232.65	C
ATOM	15519	NZ	LYS	V	145	-45.769	86.372	27.848	1	243.03	N
ATOM	15520	C	LYS	V	145	-49.91	85.98	30.919	1	169.04	C
ATOM	15521	O	LYS	V	145	-50.152	84.77	30.921	1	175.78	O
ATOM	15522	N	VAL	V	146	-50.404	86.832	30.014	1	160.6	N
ATOM	15523	CA	VAL	V	146	-51.255	86.394	28.883	1	153.49	C
ATOM	15524	CB	VAL	V	146	-52.481	87.347	28.623	1	150.94	C
ATOM	15525	CG1	VAL	V	146	-52.104	88.827	28.646	1	144.02	C
ATOM	15526	CG2	VAL	V	146	-53.227	86.98	27.341	1	145.67	C
ATOM	15527	C	VAL	V	146	-50.361	86.141	27.65	1	141.89	C
ATOM	15528	O	VAL	V	146	-49.429	86.898	27.396	1	141.85	O
ATOM	15529	N	GLN	V	147	-50.64	85.053	26.921	1	138.14	N

ATOM	15530	CA	GLN	V	147	-49.757	84.524	25.851	1	124.33	C
ATOM	15531	CB	GLN	V	147	-48.448	83.998	26.503	1	120.3	C
ATOM	15532	CG	GLN	V	147	-48.03	82.556	26.244	1	120.16	C
ATOM	15533	CD	GLN	V	147	-47.837	82.253	24.777	1	128.37	C
ATOM	15534	OE1	GLN	V	147	-47.187	83.012	24.059	1	145.06	O
ATOM	15535	NE2	GLN	V	147	-48.412	81.146	24.316	1	129.28	N
ATOM	15536	C	GLN	V	147	-50.473	83.472	24.939	1	119.19	C
ATOM	15537	O	GLN	V	147	-50.916	82.424	25.419	1	112.38	O
ATOM	15538	N	TRP	V	148	-50.577	83.754	23.634	1	125.79	N
ATOM	15539	CA	TRP	V	148	-51.312	82.883	22.669	1	138.06	C
ATOM	15540	CB	TRP	V	148	-52.341	83.686	21.842	1	145.12	C
ATOM	15541	CG	TRP	V	148	-53.04	84.73	22.635	1	166.83	C
ATOM	15542	CD1	TRP	V	148	-53.544	84.587	23.891	1	183.42	C
ATOM	15543	NE1	TRP	V	148	-54.09	85.768	24.319	1	198.35	N
ATOM	15544	CE2	TRP	V	148	-53.969	86.706	23.33	1	200.01	C
ATOM	15545	CD2	TRP	V	148	-53.302	86.089	22.247	1	187.1	C
ATOM	15546	CE3	TRP	V	148	-53.04	86.845	21.093	1	198.95	C
ATOM	15547	CZ3	TRP	V	148	-53.454	88.188	21.057	1	203.06	C
ATOM	15548	CH2	TRP	V	148	-54.12	88.771	22.155	1	203.04	C
ATOM	15549	CZ2	TRP	V	148	-54.386	88.05	23.296	1	202.3	C
ATOM	15550	C	TRP	V	148	-50.353	82.16	21.724	1	131.83	C
ATOM	15551	O	TRP	V	148	-49.14	82.348	21.801	1	147.22	O
ATOM	15552	N	LYS	V	149	-50.902	81.317	20.852	1	121.81	N
ATOM	15553	CA	LYS	V	149	-50.118	80.6	19.839	1	112.57	C
ATOM	15554	CB	LYS	V	149	-49.727	79.202	20.328	1	101.07	C
ATOM	15555	CG	LYS	V	149	-48.803	79.231	21.534	1	96.14	C
ATOM	15556	CD	LYS	V	149	-48.121	77.916	21.85	1	91.12	C
ATOM	15557	CE	LYS	V	149	-47.469	77.258	20.649	1	95.88	C
ATOM	15558	NZ	LYS	V	149	-46.809	78.049	19.563	1	93.73	N
ATOM	15559	C	LYS	V	149	-50.926	80.492	18.56	1	119.52	C
ATOM	15560	O	LYS	V	149	-51.772	79.595	18.42	1	122.14	O
ATOM	15561	N	VAL	V	150	-50.683	81.427	17.641	1	126.19	N
ATOM	15562	CA	VAL	V	150	-51.25	81.338	16.295	1	127.38	C
ATOM	15563	CB	VAL	V	150	-51.488	82.729	15.601	1	127.36	C
ATOM	15564	CG1	VAL	V	150	-51.948	83.798	16.592	1	120.54	C
ATOM	15565	CG2	VAL	V	150	-50.264	83.225	14.843	1	133.56	C
ATOM	15566	C	VAL	V	150	-50.295	80.428	15.512	1	128.45	C
ATOM	15567	O	VAL	V	150	-49.163	80.181	15.943	1	118.32	O
ATOM	15568	N	ASP	V	151	-50.765	79.924	14.377	1	128.51	N
ATOM	15569	CA	ASP	V	151	-49.98	79.04	13.528	1	125.69	C
ATOM	15570	CB	ASP	V	151	-50.533	77.611	13.604	1	115.4	C
ATOM	15571	CG	ASP	V	151	-49.453	76.581	13.535	1	116.26	C
ATOM	15572	OD1	ASP	V	151	-48.543	76.632	14.39	1	101.77	O
ATOM	15573	OD2	ASP	V	151	-49.51	75.728	12.627	1	129.55	O

ATOM	15574	C	ASP	V	151	-49.887	79.623	12.103	1	131.07	C
ATOM	15575	O	ASP	V	151	-48.93	80.355	11.833	1	117.73	O
ATOM	15576	N	ASN	V	152	-50.861	79.344	11.224	1	141.9	N
ATOM	15577	CA	ASN	V	152	-50.974	80.017	9.917	1	151.84	C
ATOM	15578	CB	ASN	V	152	-51.45	79.041	8.818	1	157.24	C
ATOM	15579	CG	ASN	V	152	-50.454	77.914	8.533	1	162.57	C
ATOM	15580	OD1	ASN	V	152	-49.269	78	8.864	1	161.77	O
ATOM	15581	ND2	ASN	V	152	-50.94	76.85	7.892	1	160.54	N
ATOM	15582	C	ASN	V	152	-51.939	81.196	10.049	1	153.41	C
ATOM	15583	O	ASN	V	152	-52.863	81.35	9.245	1	151.19	O
ATOM	15584	N	ALA	V	153	-51.685	82.037	11.061	1	159.45	N
ATOM	15585	CA	ALA	V	153	-52.711	82.877	11.708	1	166.35	C
ATOM	15586	CB	ALA	V	153	-53.05	84.087	10.846	1	161.72	C
ATOM	15587	C	ALA	V	153	-53.975	82.055	12.076	1	179.65	C
ATOM	15588	O	ALA	V	153	-55.102	82.554	12.023	1	187.84	O
ATOM	15589	N	LEU	V	154	-53.742	80.792	12.443	1	184.82	N
ATOM	15590	CA	LEU	V	154	-54.744	79.801	12.84	1	190.1	C
ATOM	15591	CB	LEU	V	154	-54.744	78.657	11.805	1	204.3	C
ATOM	15592	CG	LEU	V	154	-55.868	77.609	11.705	1	214.79	C
ATOM	15593	CD1	LEU	V	154	-55.678	76.755	10.452	1	212.51	C
ATOM	15594	CD2	LEU	V	154	-55.948	76.721	12.941	1	210.92	C
ATOM	15595	C	LEU	V	154	-54.267	79.306	14.211	1	180.48	C
ATOM	15596	O	LEU	V	154	-53.08	79.04	14.364	1	179.17	O
ATOM	15597	N	GLN	V	155	-55.161	79.179	15.194	1	168.2	N
ATOM	15598	CA	GLN	V	155	-54.764	78.908	16.605	1	154.39	C
ATOM	15599	CB	GLN	V	155	-55.509	79.861	17.531	1	135.25	C
ATOM	15600	CG	GLN	V	155	-54.729	81.103	17.864	1	124.06	C
ATOM	15601	CD	GLN	V	155	-55.642	82.189	18.354	1	120.48	C
ATOM	15602	OE1	GLN	V	155	-56.507	82.648	17.615	1	114.75	O
ATOM	15603	NE2	GLN	V	155	-55.475	82.594	19.607	1	124.29	N
ATOM	15604	C	GLN	V	155	-54.982	77.468	17.086	1	161.93	C
ATOM	15605	O	GLN	V	155	-55.455	76.617	16.33	1	175.26	O
ATOM	15606	N	SER	V	156	-54.618	77.209	18.345	1	158.81	N
ATOM	15607	CA	SER	V	156	-54.854	75.909	18.995	1	159.93	C
ATOM	15608	CB	SER	V	156	-53.537	75.142	19.103	1	153.04	C
ATOM	15609	OG	SER	V	156	-52.798	75.252	17.903	1	136.38	O
ATOM	15610	C	SER	V	156	-55.461	76.085	20.389	1	156.2	C
ATOM	15611	O	SER	V	156	-55.622	77.21	20.866	1	147.14	O
ATOM	15612	N	GLY	V	157	-55.8	74.964	21.028	1	145.37	N
ATOM	15613	CA	GLY	V	157	-56.226	74.957	22.428	1	146.59	C
ATOM	15614	C	GLY	V	157	-55.483	73.882	23.203	1	154.27	C
ATOM	15615	O	GLY	V	157	-54.422	74.137	23.783	1	154.65	O
ATOM	15616	N	ASN	V	158	-56.068	72.685	23.199	1	158.56	N
ATOM	15617	CA	ASN	V	158	-55.521	71.432	23.794	1	154.15	C

ATOM	15618	CB	ASN	V	158	-56.186	70.226	23.102	1	162.07	C
ATOM	15619	CG	ASN	V	158	-56.193	70.35	21.584	1	162.66	C
ATOM	15620	OD1	ASN	V	158	-57.057	71.021	21.013	1	154.99	O
ATOM	15621	ND2	ASN	V	158	-55.225	69.717	20.927	1	163.68	N
ATOM	15622	C	ASN	V	158	-53.994	71.175	23.839	1	137.35	C
ATOM	15623	O	ASN	V	158	-53.508	70.495	24.74	1	141.36	O
ATOM	15624	N	SER	V	159	-53.263	71.674	22.856	1	121.43	N
ATOM	15625	CA	SER	V	159	-51.812	71.558	22.804	1	115.05	C
ATOM	15626	CB	SER	V	159	-51.425	71.425	21.338	1	117.79	C
ATOM	15627	OG	SER	V	159	-52.232	72.274	20.523	1	109.5	O
ATOM	15628	C	SER	V	159	-51.193	72.818	23.419	1	117.76	C
ATOM	15629	O	SER	V	159	-51.518	73.913	22.963	1	125.3	O
ATOM	15630	N	GLN	V	160	-50.326	72.667	24.432	1	108.62	N
ATOM	15631	CA	GLN	V	160	-49.811	73.783	25.279	1	109.33	C
ATOM	15632	CB	GLN	V	160	-50.613	75.088	25.116	1	120.39	C
ATOM	15633	CG	GLN	V	160	-50.456	76.09	26.264	1	138.86	C
ATOM	15634	CD	GLN	V	160	-50.507	77.548	25.832	1	157.02	C
ATOM	15635	OE1	GLN	V	160	-51.008	77.892	24.748	1	164.54	O
ATOM	15636	NE2	GLN	V	160	-49.981	78.423	26.695	1	152.89	N
ATOM	15637	C	GLN	V	160	-49.829	73.427	26.774	1	106.53	C
ATOM	15638	O	GLN	V	160	-50.875	73.104	27.314	1	106.6	O
ATOM	15639	N	GLU	V	161	-48.683	73.543	27.441	1	110.15	N
ATOM	15640	CA	GLU	V	161	-48.576	73.464	28.911	1	113.73	C
ATOM	15641	CB	GLU	V	161	-48.326	72.014	29.403	1	117.85	C
ATOM	15642	CG	GLU	V	161	-48.904	70.853	28.582	1	123.36	C
ATOM	15643	CD	GLU	V	161	-48.063	70.471	27.357	1	132.93	C
ATOM	15644	OE1	GLU	V	161	-48.613	70.455	26.23	1	142.09	O
ATOM	15645	OE2	GLU	V	161	-46.851	70.183	27.512	1	129.85	O
ATOM	15646	C	GLU	V	161	-47.436	74.403	29.413	1	121.68	C
ATOM	15647	O	GLU	V	161	-46.263	73.997	29.445	1	133.29	O
ATOM	15648	N	SER	V	162	-47.771	75.645	29.789	1	116.46	N
ATOM	15649	CA	SER	V	162	-46.779	76.606	30.335	1	105.9	C
ATOM	15650	CB	SER	V	162	-47.381	77.995	30.527	1	106.58	C
ATOM	15651	OG	SER	V	162	-48.218	78.332	29.44	1	125.02	O
ATOM	15652	C	SER	V	162	-46.226	76.147	31.673	1	101.54	C
ATOM	15653	O	SER	V	162	-46.899	75.438	32.418	1	104.15	O
ATOM	15654	N	VAL	V	163	-44.999	76.555	31.969	1	99.6	N
ATOM	15655	CA	VAL	V	163	-44.356	76.244	33.25	1	107.72	C
ATOM	15656	CB	VAL	V	163	-43.485	74.961	33.184	1	103.48	C
ATOM	15657	CG1	VAL	V	163	-44.354	73.721	33.158	1	100.16	C
ATOM	15658	CG2	VAL	V	163	-42.558	74.958	31.985	1	109.14	C
ATOM	15659	C	VAL	V	163	-43.528	77.441	33.742	1	117.81	C
ATOM	15660	O	VAL	V	163	-42.771	78.036	32.967	1	124.73	O
ATOM	15661	N	THR	V	164	-43.68	77.783	35.028	1	119.46	N

ATOM	15662	CA	THR	V	164	-43.053	78.972	35.609	1	109.87	C
ATOM	15663	CB	THR	V	164	-44.093	79.879	36.3	1	102.71	C
ATOM	15664	OG1	THR	V	164	-45.101	80.229	35.349	1	97.69	O
ATOM	15665	CG2	THR	V	164	-43.472	81.179	36.816	1	101.14	C
ATOM	15666	C	THR	V	164	-41.927	78.616	36.579	1	112.74	C
ATOM	15667	O	THR	V	164	-41.925	77.569	37.225	1	98.31	O
ATOM	15668	N	GLU	V	165	-40.956	79.516	36.624	1	122.25	N
ATOM	15669	CA	GLU	V	165	-39.926	79.56	37.638	1	129.93	C
ATOM	15670	CB	GLU	V	165	-38.925	80.643	37.214	1	144.3	C
ATOM	15671	CG	GLU	V	165	-37.477	80.467	37.632	1	161.55	C
ATOM	15672	CD	GLU	V	165	-36.755	81.799	37.787	1	176.33	C
ATOM	15673	OE1	GLU	V	165	-37.091	82.763	37.058	1	179.03	O
ATOM	15674	OE2	GLU	V	165	-35.838	81.877	38.635	1	187.44	O
ATOM	15675	C	GLU	V	165	-40.63	79.931	38.955	1	130.01	C
ATOM	15676	O	GLU	V	165	-41.843	79.788	39.082	1	126.48	O
ATOM	15677	N	GLN	V	166	-39.879	80.414	39.935	1	134.31	N
ATOM	15678	CA	GLN	V	166	-40.454	80.989	41.14	1	134.49	C
ATOM	15679	CB	GLN	V	166	-39.61	80.599	42.36	1	130.3	C
ATOM	15680	CG	GLN	V	166	-39.471	79.097	42.603	1	128.15	C
ATOM	15681	CD	GLN	V	166	-38.377	78.443	41.766	1	125.7	C
ATOM	15682	OE1	GLN	V	166	-38.238	78.737	40.581	1	120.84	O
ATOM	15683	NE2	GLN	V	166	-37.606	77.543	42.377	1	121.68	N
ATOM	15684	C	GLN	V	166	-40.461	82.508	40.941	1	138.31	C
ATOM	15685	O	GLN	V	166	-40.299	83.005	39.821	1	145.62	O
ATOM	15686	N	ASP	V	167	-40.686	83.245	42.02	1	138.13	N
ATOM	15687	CA	ASP	V	167	-40.17	84.592	42.109	1	136.09	C
ATOM	15688	CB	ASP	V	167	-40.676	85.288	43.364	1	139.4	C
ATOM	15689	CG	ASP	V	167	-40.139	86.689	43.507	1	133.89	C
ATOM	15690	OD1	ASP	V	167	-40.489	87.557	42.67	1	126.58	O
ATOM	15691	OD2	ASP	V	167	-39.373	86.912	44.467	1	132.76	O
ATOM	15692	C	ASP	V	167	-38.671	84.358	42.177	1	141.46	C
ATOM	15693	O	ASP	V	167	-38.153	83.937	43.22	1	136.38	O
ATOM	15694	N	SER	V	168	-38	84.582	41.045	1	156.12	N
ATOM	15695	CA	SER	V	168	-36.603	84.178	40.843	1	164.35	C
ATOM	15696	CB	SER	V	168	-36.018	84.861	39.604	1	157.09	C
ATOM	15697	OG	SER	V	168	-34.634	84.579	39.46	1	151.24	O
ATOM	15698	C	SER	V	168	-35.702	84.469	42.036	1	176.19	C
ATOM	15699	O	SER	V	168	-35.269	85.617	42.218	1	171.71	O
ATOM	15700	N	LYS	V	169	-35.468	83.423	42.843	1	174.63	N
ATOM	15701	CA	LYS	V	169	-34.465	83.392	43.928	1	166.72	C
ATOM	15702	CB	LYS	V	169	-33.374	82.342	43.625	1	160.61	C
ATOM	15703	CG	LYS	V	169	-33.116	82.094	42.136	1	162.65	C
ATOM	15704	CD	LYS	V	169	-31.668	81.742	41.82	1	159.45	C
ATOM	15705	CE	LYS	V	169	-31.374	81.911	40.334	1	156.85	C

ATOM	15706	NZ	LYS	V	169	-31.511	83.324	39.87	1	156.18	N
ATOM	15707	C	LYS	V	169	-33.833	84.753	44.253	1	171.63	C
ATOM	15708	O	LYS	V	169	-34.101	85.33	45.311	1	174.03	O
ATOM	15709	N	ASP	V	170	-33.013	85.267	43.337	1	169.04	N
ATOM	15710	CA	ASP	V	170	-32.473	86.614	43.457	1	159.71	C
ATOM	15711	CB	ASP	V	170	-31.293	86.643	44.432	1	164.81	C
ATOM	15712	CG	ASP	V	170	-30.207	85.659	44.064	1	166.24	C
ATOM	15713	OD1	ASP	V	170	-30.521	84.467	43.857	1	182.65	O
ATOM	15714	OD2	ASP	V	170	-29.04	86.086	43.98	1	154.46	O
ATOM	15715	C	ASP	V	170	-32.104	87.19	42.091	1	146.58	C
ATOM	15716	O	ASP	V	170	-30.937	87.432	41.776	1	114.61	O
ATOM	15717	N	SER	V	171	-33.129	87.307	41.256	1	153.41	N
ATOM	15718	CA	SER	V	171	-33.234	88.4	40.289	1	156.79	C
ATOM	15719	CB	SER	V	171	-33.033	87.893	38.848	1	158.96	C
ATOM	15720	OG	SER	V	171	-34.064	87.009	38.429	1	160.7	O
ATOM	15721	C	SER	V	171	-34.574	89.162	40.425	1	152.12	C
ATOM	15722	O	SER	V	171	-34.692	90.263	39.884	1	134.35	O
ATOM	15723	N	THR	V	172	-35.536	88.6	41.183	1	145.29	N
ATOM	15724	CA	THR	V	172	-36.964	89.003	41.206	1	152.12	C
ATOM	15725	CB	THR	V	172	-37.198	90.543	41.311	1	159.99	C
ATOM	15726	OG1	THR	V	172	-36.153	91.175	42.057	1	165.22	O
ATOM	15727	CG2	THR	V	172	-38.551	90.851	41.957	1	169.16	C
ATOM	15728	C	THR	V	172	-37.796	88.522	40.007	1	156.5	C
ATOM	15729	O	THR	V	172	-39.029	88.534	40.075	1	141.78	O
ATOM	15730	N	TYR	V	173	-37.131	88.108	38.924	1	169.44	N
ATOM	15731	CA	TYR	V	173	-37.738	88.056	37.595	1	172	C
ATOM	15732	CB	TYR	V	173	-36.773	88.661	36.541	1	190.06	C
ATOM	15733	CG	TYR	V	173	-36.687	90.205	36.54	1	212.07	C
ATOM	15734	CD1	TYR	V	173	-36.625	90.933	37.734	1	210.24	C
ATOM	15735	CE1	TYR	V	173	-36.551	92.322	37.752	1	192.47	C
ATOM	15736	CZ	TYR	V	173	-36.541	93.022	36.559	1	186.74	C
ATOM	15737	OH	TYR	V	173	-36.474	94.394	36.597	1	160.75	O
ATOM	15738	CE2	TYR	V	173	-36.596	92.337	35.35	1	193.99	C
ATOM	15739	CD2	TYR	V	173	-36.673	90.939	35.341	1	212.28	C
ATOM	15740	C	TYR	V	173	-38.187	86.641	37.225	1	158.59	C
ATOM	15741	O	TYR	V	173	-37.394	85.836	36.735	1	158.26	O
ATOM	15742	N	SER	V	174	-39.47	86.365	37.485	1	150.45	N
ATOM	15743	CA	SER	V	174	-40.153	85.104	37.124	1	142.49	C
ATOM	15744	CB	SER	V	174	-41.633	85.144	37.583	1	140.12	C
ATOM	15745	OG	SER	V	174	-41.819	85.185	39.007	1	125.05	O
ATOM	15746	C	SER	V	174	-40.062	84.829	35.602	1	140.47	C
ATOM	15747	O	SER	V	174	-39.674	85.708	34.827	1	139.51	O
ATOM	15748	N	LEU	V	175	-40.427	83.619	35.173	1	144.84	N
ATOM	15749	CA	LEU	V	175	-39.956	83.081	33.881	1	142.11	C

ATOM	15750	CB	LEU	V	175	-38.46	82.779	34.082	1	149.58	C
ATOM	15751	CG	LEU	V	175	-37.465	82.186	33.086	1	151.3	C
ATOM	15752	CD1	LEU	V	175	-36.057	82.544	33.542	1	141.93	C
ATOM	15753	CD2	LEU	V	175	-37.614	80.679	32.967	1	158.2	C
ATOM	15754	C	LEU	V	175	-40.748	81.827	33.386	1	140.06	C
ATOM	15755	O	LEU	V	175	-40.598	80.736	33.946	1	129.26	O
ATOM	15756	N	SER	V	176	-41.552	81.998	32.321	1	132.11	N
ATOM	15757	CA	SER	V	176	-42.545	80.991	31.828	1	119.1	C
ATOM	15758	CB	SER	V	176	-43.754	81.736	31.226	1	117.62	C
ATOM	15759	OG	SER	V	176	-44.807	80.85	30.873	1	117.62	O
ATOM	15760	C	SER	V	176	-41.969	79.958	30.806	1	104.57	C
ATOM	15761	O	SER	V	176	-40.76	79.886	30.649	1	89.96	O
ATOM	15762	N	SER	V	177	-42.828	79.157	30.144	1	98.04	N
ATOM	15763	CA	SER	V	177	-42.394	78.117	29.157	1	95.32	C
ATOM	15764	CB	SER	V	177	-41.272	77.242	29.763	1	87.64	C
ATOM	15765	OG	SER	V	177	-41.292	75.863	29.409	1	78.5	O
ATOM	15766	C	SER	V	177	-43.519	77.221	28.561	1	105.08	C
ATOM	15767	O	SER	V	177	-43.671	76.059	28.948	1	125.85	O
ATOM	15768	N	THR	V	178	-44.279	77.752	27.606	1	99.13	N
ATOM	15769	CA	THR	V	178	-45.273	76.936	26.842	1	98.76	C
ATOM	15770	CB	THR	V	178	-46.336	77.77	26.055	1	101.68	C
ATOM	15771	OG1	THR	V	178	-46.589	77.161	24.773	1	103.6	O
ATOM	15772	CG2	THR	V	178	-45.909	79.2	25.792	1	104.72	C
ATOM	15773	C	THR	V	178	-44.62	76.004	25.82	1	96.64	C
ATOM	15774	O	THR	V	178	-43.707	76.423	25.136	1	100.8	O
ATOM	15775	N	LEU	V	179	-45.108	74.762	25.712	1	95.36	N
ATOM	15776	CA	LEU	V	179	-44.806	73.862	24.58	1	99.87	C
ATOM	15777	CB	LEU	V	179	-43.952	72.673	25.038	1	99.55	C
ATOM	15778	CG	LEU	V	179	-43.21	72.768	26.377	1	113.48	C
ATOM	15779	CD1	LEU	V	179	-42.461	71.466	26.639	1	124.5	C
ATOM	15780	CD2	LEU	V	179	-42.245	73.943	26.451	1	113.65	C
ATOM	15781	C	LEU	V	179	-46.09	73.326	23.907	1	109.54	C
ATOM	15782	O	LEU	V	179	-46.792	72.499	24.498	1	119.53	O
ATOM	15783	N	THR	V	180	-46.402	73.789	22.688	1	110.34	N
ATOM	15784	CA	THR	V	180	-47.46	73.137	21.858	1	105.47	C
ATOM	15785	CB	THR	V	180	-47.946	73.996	20.645	1	102.52	C
ATOM	15786	OG1	THR	V	180	-49.004	73.342	19.935	1	98.03	O
ATOM	15787	CG2	THR	V	180	-46.866	74.272	19.645	1	99.42	C
ATOM	15788	C	THR	V	180	-47.008	71.76	21.359	1	98.52	C
ATOM	15789	O	THR	V	180	-45.927	71.635	20.779	1	88.12	O
ATOM	15790	N	LEU	V	181	-47.832	70.742	21.614	1	98.49	N
ATOM	15791	CA	LEU	V	181	-47.614	69.395	21.083	1	108.52	C
ATOM	15792	CB	LEU	V	181	-47.904	68.328	22.142	1	114.71	C
ATOM	15793	CG	LEU	V	181	-46.71	67.783	22.918	1	119.27	C

ATOM	15794	CD1	LEU	V	181	-46.161	68.842	23.864	1	126.55	C
ATOM	15795	CD2	LEU	V	181	-47.139	66.528	23.673	1	125.1	C
ATOM	15796	C	LEU	V	181	-48.499	69.132	19.866	1	117.42	C
ATOM	15797	O	LEU	V	181	-49.728	69.196	19.956	1	120.99	O
ATOM	15798	N	SER	V	182	-47.863	68.821	18.738	1	116.12	N
ATOM	15799	CA	SER	V	182	-48.556	68.382	17.532	1	113.21	C
ATOM	15800	CB	SER	V	182	-48.44	69.469	16.461	1	116.42	C
ATOM	15801	OG	SER	V	182	-49.173	70.637	16.801	1	108.61	O
ATOM	15802	C	SER	V	182	-47.879	67.103	17.064	1	113.89	C
ATOM	15803	O	SER	V	182	-46.712	66.889	17.402	1	114.55	O
ATOM	15804	N	LYS	V	183	-48.587	66.261	16.301	1	109.91	N
ATOM	15805	CA	LYS	V	183	-47.973	65.029	15.722	1	120.5	C
ATOM	15806	CB	LYS	V	183	-49.037	63.998	15.319	1	125.91	C
ATOM	15807	CG	LYS	V	183	-50.096	64.465	14.325	1	132.34	C
ATOM	15808	CD	LYS	V	183	-51.151	63.392	14.079	1	134.16	C
ATOM	15809	CE	LYS	V	183	-52.448	63.974	13.542	1	133.53	C
ATOM	15810	NZ	LYS	V	183	-53.574	63.036	13.789	1	136.03	N
ATOM	15811	C	LYS	V	183	-47.015	65.3	14.543	1	128.15	C
ATOM	15812	O	LYS	V	183	-47.141	66.326	13.86	1	132.23	O
ATOM	15813	N	ALA	V	184	-46.069	64.384	14.302	1	130.54	N
ATOM	15814	CA	ALA	V	184	-45.075	64.545	13.216	1	138.97	C
ATOM	15815	CB	ALA	V	184	-44.307	63.254	12.975	1	145.75	C
ATOM	15816	C	ALA	V	184	-45.747	64.988	11.932	1	137.07	C
ATOM	15817	O	ALA	V	184	-45.313	65.948	11.303	1	150.78	O
ATOM	15818	N	ASP	V	185	-46.812	64.272	11.579	1	129.86	N
ATOM	15819	CA	ASP	V	185	-47.756	64.66	10.525	1	139.7	C
ATOM	15820	CB	ASP	V	185	-48.985	63.719	10.571	1	155.46	C
ATOM	15821	CG	ASP	V	185	-50.23	64.307	9.889	1	174.82	C
ATOM	15822	OD1	ASP	V	185	-50.996	65.045	10.555	1	184.49	O
ATOM	15823	OD2	ASP	V	185	-50.456	64.007	8.695	1	183.56	O
ATOM	15824	C	ASP	V	185	-48.215	66.13	10.571	1	134.2	C
ATOM	15825	O	ASP	V	185	-48.076	66.857	9.589	1	132.91	O
ATOM	15826	N	TYR	V	186	-48.741	66.557	11.715	1	134.86	N
ATOM	15827	CA	TYR	V	186	-49.601	67.743	11.802	1	139.73	C
ATOM	15828	CB	TYR	V	186	-50.533	67.622	13.019	1	154.1	C
ATOM	15829	CG	TYR	V	186	-51.599	68.698	13.131	1	180	C
ATOM	15830	CD1	TYR	V	186	-52.785	68.618	12.397	1	192.29	C
ATOM	15831	CE1	TYR	V	186	-53.764	69.605	12.506	1	203.16	C
ATOM	15832	CZ	TYR	V	186	-53.569	70.685	13.366	1	203.96	C
ATOM	15833	OH	TYR	V	186	-54.531	71.665	13.484	1	207.44	O
ATOM	15834	CE2	TYR	V	186	-52.404	70.779	14.107	1	195.88	C
ATOM	15835	CD2	TYR	V	186	-51.431	69.791	13.989	1	193.74	C
ATOM	15836	C	TYR	V	186	-48.833	69.078	11.807	1	130.73	C
ATOM	15837	O	TYR	V	186	-49.389	70.108	11.374	1	115.47	O

ATOM	15838	N	GLU	V	187	-47.578	69.076	12.282	1	124.26	N
ATOM	15839	CA	GLU	V	187	-46.713	70.25	12.083	1	122.53	C
ATOM	15840	CB	GLU	V	187	-45.465	70.271	12.963	1	109.35	C
ATOM	15841	CG	GLU	V	187	-44.857	71.683	13.037	1	97.63	C
ATOM	15842	CD	GLU	V	187	-43.349	71.695	13.189	1	97.89	C
ATOM	15843	OE1	GLU	V	187	-42.697	70.643	13.031	1	98.5	O
ATOM	15844	OE2	GLU	V	187	-42.801	72.774	13.464	1	98.02	O
ATOM	15845	C	GLU	V	187	-46.299	70.289	10.63	1	123.4	C
ATOM	15846	O	GLU	V	187	-46.544	71.282	9.946	1	130.44	O
ATOM	15847	N	LYS	V	188	-45.703	69.195	10.159	1	112.49	N
ATOM	15848	CA	LYS	V	188	-45.383	69.044	8.749	1	108.56	C
ATOM	15849	CB	LYS	V	188	-45.014	67.597	8.418	1	110.16	C
ATOM	15850	CG	LYS	V	188	-43.609	67.202	8.849	1	112.76	C
ATOM	15851	CD	LYS	V	188	-43.347	65.704	8.694	1	118.57	C
ATOM	15852	CE	LYS	V	188	-43.575	65.188	7.276	1	119.35	C
ATOM	15853	NZ	LYS	V	188	-42.888	66.018	6.248	1	120.15	N
ATOM	15854	C	LYS	V	188	-46.541	69.512	7.867	1	102.82	C
ATOM	15855	O	LYS	V	188	-46.318	70.248	6.913	1	116.03	O
ATOM	15856	N	HIS	V	189	-47.769	69.139	8.218	1	94.92	N
ATOM	15857	CA	HIS	V	189	-48.948	69.529	7.434	1	108.68	C
ATOM	15858	CB	HIS	V	189	-50.212	68.797	7.935	1	116.67	C
ATOM	15859	CG	HIS	V	189	-51.355	68.819	6.964	1	128.13	C
ATOM	15860	ND1	HIS	V	189	-51.459	67.928	5.917	1	144.31	N
ATOM	15861	CE1	HIS	V	189	-52.558	68.186	5.226	1	152.5	C
ATOM	15862	NE2	HIS	V	189	-53.172	69.211	5.79	1	149.07	N
ATOM	15863	CD2	HIS	V	189	-52.44	69.626	6.878	1	139.98	C
ATOM	15864	C	HIS	V	189	-49.191	71.052	7.381	1	114.7	C
ATOM	15865	O	HIS	V	189	-49.965	71.518	6.541	1	116.93	O
ATOM	15866	N	LYS	V	190	-48.547	71.828	8.258	1	119.76	N
ATOM	15867	CA	LYS	V	190	-48.628	73.289	8.189	1	124.07	C
ATOM	15868	CB	LYS	V	190	-49.549	73.786	9.303	1	131.1	C
ATOM	15869	CG	LYS	V	190	-50.949	73.178	9.176	1	138.85	C
ATOM	15870	CD	LYS	V	190	-52.047	74.039	9.771	1	153.21	C
ATOM	15871	CE	LYS	V	190	-52.056	73.967	11.29	1	161.24	C
ATOM	15872	NZ	LYS	V	190	-52.802	75.093	11.926	1	162.45	N
ATOM	15873	C	LYS	V	190	-47.249	73.991	8.13	1	122.02	C
ATOM	15874	O	LYS	V	190	-46.189	73.352	8.239	1	111.58	O
ATOM	15875	N	VAL	V	191	-47.28	75.305	7.906	1	121.45	N
ATOM	15876	CA	VAL	V	191	-46.136	76.028	7.33	1	122.18	C
ATOM	15877	CB	VAL	V	191	-46.586	76.946	6.156	1	139.81	C
ATOM	15878	CG1	VAL	V	191	-45.412	77.224	5.211	1	143.64	C
ATOM	15879	CG2	VAL	V	191	-47.765	76.355	5.376	1	145.71	C
ATOM	15880	C	VAL	V	191	-45.372	76.884	8.342	1	114.82	C
ATOM	15881	O	VAL	V	191	-44.135	76.847	8.389	1	87.93	O

ATOM	15882	N	TYR	V	192	-46.119	77.66	9.131	1	129.28	N
ATOM	15883	CA	TYR	V	192	-45.551	78.664	10.042	1	144.81	C
ATOM	15884	CB	TYR	V	192	-46.154	80.056	9.755	1	159.79	C
ATOM	15885	CG	TYR	V	192	-46.618	80.293	8.299	1	185.28	C
ATOM	15886	CD1	TYR	V	192	-45.753	80.114	7.208	1	204.83	C
ATOM	15887	CE1	TYR	V	192	-46.182	80.333	5.897	1	199.65	C
ATOM	15888	CZ	TYR	V	192	-47.487	80.737	5.657	1	192.34	C
ATOM	15889	OH	TYR	V	192	-47.906	80.951	4.366	1	183.95	O
ATOM	15890	CE2	TYR	V	192	-48.359	80.93	6.715	1	186.46	C
ATOM	15891	CD2	TYR	V	192	-47.922	80.711	8.019	1	189.46	C
ATOM	15892	C	TYR	V	192	-45.755	78.245	11.512	1	144.88	C
ATOM	15893	O	TYR	V	192	-46.397	77.229	11.791	1	153.95	O
ATOM	15894	N	ALA	V	193	-45.199	79.014	12.446	1	142.64	N
ATOM	15895	CA	ALA	V	193	-45.197	78.641	13.877	1	134.88	C
ATOM	15896	CB	ALA	V	193	-44.182	77.522	14.119	1	122.69	C
ATOM	15897	C	ALA	V	193	-44.895	79.863	14.781	1	135.72	C
ATOM	15898	O	ALA	V	193	-43.751	80.268	14.904	1	131.79	O
ATOM	15899	N	CYS	V	194	-45.912	80.44	15.421	1	141.08	N
ATOM	15900	CA	CYS	V	194	-45.779	81.782	16.021	1	152.43	C
ATOM	15901	CB	CYS	V	194	-46.481	82.811	15.112	1	177.88	C
ATOM	15902	SG	CYS	V	194	-46.755	82.319	13.371	1	199.74	S
ATOM	15903	C	CYS	V	194	-46.317	81.865	17.47	1	147.72	C
ATOM	15904	O	CYS	V	194	-47.438	81.424	17.746	1	142.58	O
ATOM	15905	N	GLU	V	195	-45.524	82.46	18.373	1	139.69	N
ATOM	15906	CA	GLU	V	195	-45.779	82.424	19.832	1	128.49	C
ATOM	15907	CB	GLU	V	195	-44.612	81.734	20.549	1	133.59	C
ATOM	15908	CG	GLU	V	195	-44.473	80.236	20.255	1	156.52	C
ATOM	15909	CD	GLU	V	195	-44.998	79.306	21.356	1	164.9	C
ATOM	15910	OE1	GLU	V	195	-45.731	79.776	22.248	1	184.86	O
ATOM	15911	OE2	GLU	V	195	-44.679	78.086	21.318	1	150.35	O
ATOM	15912	C	GLU	V	195	-45.993	83.818	20.414	1	113.07	C
ATOM	15913	O	GLU	V	195	-45.248	84.238	21.302	1	98.79	O
ATOM	15914	N	VAL	V	196	-47.025	84.502	19.9	1	108.68	N
ATOM	15915	CA	VAL	V	196	-47.433	85.877	20.314	1	108.26	C
ATOM	15916	CB	VAL	V	196	-48.678	86.41	19.512	1	113	C
ATOM	15917	CG1	VAL	V	196	-49.79	85.37	19.397	1	113.73	C
ATOM	15918	CG2	VAL	V	196	-49.237	87.721	20.088	1	114.78	C
ATOM	15919	C	VAL	V	196	-47.695	86.037	21.817	1	105.6	C
ATOM	15920	O	VAL	V	196	-48.59	85.405	22.371	1	121.61	O
ATOM	15921	N	THR	V	197	-46.957	86.947	22.446	1	100.24	N
ATOM	15922	CA	THR	V	197	-47.012	87.147	23.897	1	95.7	C
ATOM	15923	CB	THR	V	197	-45.674	86.786	24.591	1	93.17	C
ATOM	15924	OG1	THR	V	197	-45.28	87.861	25.448	1	91.7	O
ATOM	15925	CG2	THR	V	197	-44.524	86.481	23.604	1	96.31	C

ATOM	15926	C	THR	V	197	-47.538	88.553	24.268	1	98.15	C
ATOM	15927	O	THR	V	197	-47.844	89.373	23.39	1	95.43	O
ATOM	15928	N	HIS	V	198	-47.681	88.819	25.568	1	106.72	N
ATOM	15929	CA	HIS	V	198	-48.508	89.942	26.015	1	118.26	C
ATOM	15930	CB	HIS	V	198	-49.979	89.587	25.714	1	122.5	C
ATOM	15931	CG	HIS	V	198	-50.723	90.65	24.985	1	142.43	C
ATOM	15932	ND1	HIS	V	198	-51.832	90.373	24.219	1	163.31	N
ATOM	15933	CE1	HIS	V	198	-52.292	91.494	23.694	1	173.87	C
ATOM	15934	NE2	HIS	V	198	-51.506	92.485	24.077	1	175.06	N
ATOM	15935	CD2	HIS	V	198	-50.517	91.984	24.886	1	158.18	C
ATOM	15936	C	HIS	V	198	-48.338	90.37	27.505	1	118.56	C
ATOM	15937	O	HIS	V	198	-49.326	90.536	28.224	1	141.23	O
ATOM	15938	N	GLN	V	199	-47.099	90.589	27.947	1	105.86	N
ATOM	15939	CA	GLN	V	199	-46.812	91.032	29.329	1	104.59	C
ATOM	15940	CB	GLN	V	199	-45.341	90.711	29.712	1	107.29	C
ATOM	15941	CG	GLN	V	199	-44.584	91.648	30.658	1	108.03	C
ATOM	15942	CD	GLN	V	199	-45.136	91.698	32.076	1	112.93	C
ATOM	15943	OE1	GLN	V	199	-45.968	90.88	32.474	1	113.17	O
ATOM	15944	NE2	GLN	V	199	-44.692	92.683	32.838	1	117.6	N
ATOM	15945	C	GLN	V	199	-47.158	92.515	29.504	1	116.25	C
ATOM	15946	O	GLN	V	199	-47.275	93.251	28.525	1	121.62	O
ATOM	15947	N	GLY	V	200	-47.396	92.906	30.758	1	133.24	N
ATOM	15948	CA	GLY	V	200	-47.476	94.308	31.218	1	137.35	C
ATOM	15949	C	GLY	V	200	-46.685	95.393	30.504	1	132.85	C
ATOM	15950	O	GLY	V	200	-47.288	96.219	29.816	1	131.43	O
ATOM	15951	N	LEU	V	201	-45.356	95.403	30.66	1	133.9	N
ATOM	15952	CA	LEU	V	201	-44.515	96.492	30.102	1	147.87	C
ATOM	15953	CB	LEU	V	201	-43.09	96.502	30.706	1	158.22	C
ATOM	15954	CG	LEU	V	201	-42.3	97.846	30.655	1	158.5	C
ATOM	15955	CD1	LEU	V	201	-41.375	98	31.863	1	156.65	C
ATOM	15956	CD2	LEU	V	201	-41.522	98.104	29.358	1	154.09	C
ATOM	15957	C	LEU	V	201	-44.458	96.501	28.565	1	134.93	C
ATOM	15958	O	LEU	V	201	-44.422	97.569	27.952	1	132.28	O
ATOM	15959	N	SER	V	202	-44.446	95.326	27.946	1	126.36	N
ATOM	15960	CA	SER	V	202	-44.655	95.24	26.505	1	128.52	C
ATOM	15961	CB	SER	V	202	-44.779	93.786	26.061	1	121.08	C
ATOM	15962	OG	SER	V	202	-43.519	93.156	26.104	1	116.85	O
ATOM	15963	C	SER	V	202	-45.925	95.991	26.116	1	139.87	C
ATOM	15964	O	SER	V	202	-47.032	95.534	26.404	1	145.79	O
ATOM	15965	N	SER	V	203	-45.753	97.161	25.503	1	151.66	N
ATOM	15966	CA	SER	V	203	-46.884	97.944	24.991	1	155.17	C
ATOM	15967	CB	SER	V	203	-46.462	99.384	24.695	1	158.11	C
ATOM	15968	OG	SER	V	203	-46.053	100.031	25.889	1	166.79	O
ATOM	15969	C	SER	V	203	-47.548	97.307	23.76	1	156.96	C

ATOM	15970	O	SER	V	203	-48.78	97.265	23.698	1	147.43	O
ATOM	15971	N	PRO	V	204	-46.749	96.806	22.785	1	160.24	N
ATOM	15972	CA	PRO	V	204	-47.36	96.094	21.654	1	158.3	C
ATOM	15973	CB	PRO	V	204	-46.335	96.294	20.52	1	155.94	C
ATOM	15974	CG	PRO	V	204	-45.066	96.763	21.168	1	153.51	C
ATOM	15975	CD	PRO	V	204	-45.279	96.847	22.649	1	154.02	C
ATOM	15976	C	PRO	V	204	-47.603	94.594	21.923	1	160.18	C
ATOM	15977	O	PRO	V	204	-47.306	94.09	23.014	1	152.42	O
ATOM	15978	N	VAL	V	205	-48.146	93.904	20.919	1	161.21	N
ATOM	15979	CA	VAL	V	205	-48.281	92.431	20.934	1	157.06	C
ATOM	15980	CB	VAL	V	205	-49.481	91.922	20.07	1	161.27	C
ATOM	15981	CG1	VAL	V	205	-50.797	92.118	20.803	1	159.82	C
ATOM	15982	CG2	VAL	V	205	-49.525	92.57	18.683	1	162.97	C
ATOM	15983	C	VAL	V	205	-46.968	91.758	20.487	1	148	C
ATOM	15984	O	VAL	V	205	-46.903	91.121	19.419	1	137.98	O
ATOM	15985	N	THR	V	206	-45.927	91.887	21.314	1	137.03	N
ATOM	15986	CA	THR	V	206	-44.59	91.354	20.948	1	133.16	C
ATOM	15987	CB	THR	V	206	-43.393	91.843	21.827	1	126.22	C
ATOM	15988	OG1	THR	V	206	-42.359	90.84	21.857	1	109.93	O
ATOM	15989	CG2	THR	V	206	-43.793	92.183	23.246	1	124.23	C
ATOM	15990	C	THR	V	206	-44.613	89.832	20.822	1	136.13	C
ATOM	15991	O	THR	V	206	-45.481	89.159	21.372	1	139.23	O
ATOM	15992	N	LYS	V	207	-43.641	89.312	20.082	1	140.72	N
ATOM	15993	CA	LYS	V	207	-43.828	88.076	19.328	1	142.83	C
ATOM	15994	CB	LYS	V	207	-44.795	88.401	18.167	1	135.3	C
ATOM	15995	CG	LYS	V	207	-45.163	87.27	17.224	1	141.31	C
ATOM	15996	CD	LYS	V	207	-45.389	87.786	15.815	1	161.43	C
ATOM	15997	CE	LYS	V	207	-44.075	88.031	15.073	1	166.99	C
ATOM	15998	NZ	LYS	V	207	-44.278	88.618	13.71	1	170.67	N
ATOM	15999	C	LYS	V	207	-42.479	87.53	18.812	1	134.48	C
ATOM	16000	O	LYS	V	207	-41.467	88.23	18.829	1	139.33	O
ATOM	16001	N	SER	V	208	-42.469	86.259	18.419	1	114.47	N
ATOM	16002	CA	SER	V	208	-41.398	85.686	17.614	1	114.92	C
ATOM	16003	CB	SER	V	208	-40.4	84.951	18.502	1	111.49	C
ATOM	16004	OG	SER	V	208	-39.569	85.881	19.174	1	98.27	O
ATOM	16005	C	SER	V	208	-42.018	84.772	16.55	1	134.84	C
ATOM	16006	O	SER	V	208	-43.185	84.384	16.689	1	141.88	O
ATOM	16007	N	PHE	V	209	-41.243	84.415	15.511	1	147.15	N
ATOM	16008	CA	PHE	V	209	-41.828	84.082	14.187	1	149.21	C
ATOM	16009	CB	PHE	V	209	-41.495	85.233	13.192	1	168.86	C
ATOM	16010	CG	PHE	V	209	-42.636	85.641	12.246	1	188.7	C
ATOM	16011	CD1	PHE	V	209	-43.988	85.631	12.639	1	188.77	C
ATOM	16012	CE1	PHE	V	209	-44.993	86.032	11.758	1	188.04	C
ATOM	16013	CZ	PHE	V	209	-44.669	86.473	10.481	1	187.94	C

ATOM	16014	CE2	PHE	V	209	-43.341	86.513	10.079	1	185.82	C
ATOM	16015	CD2	PHE	V	209	-42.335	86.108	10.956	1	192.8	C
ATOM	16016	C	PHE	V	209	-41.557	82.692	13.542	1	130.01	C
ATOM	16017	O	PHE	V	209	-42.518	82.057	13.151	1	127.43	O
ATOM	16018	N	ASN	V	210	-40.316	82.208	13.439	1	118.9	N
ATOM	16019	CA	ASN	V	210	-39.983	81.113	12.459	1	126.69	C
ATOM	16020	CB	ASN	V	210	-38.459	80.892	12.398	1	142.26	C
ATOM	16021	CG	ASN	V	210	-37.999	80.305	11.057	1	150.49	C
ATOM	16022	OD1	ASN	V	210	-38.19	79.114	10.777	1	150.96	O
ATOM	16023	ND2	ASN	V	210	-37.38	81.146	10.225	1	147.1	N
ATOM	16024	C	ASN	V	210	-40.699	79.735	12.609	1	120.07	C
ATOM	16025	O	ASN	V	210	-40.356	78.977	13.529	1	109.65	O
ATOM	16026	N	ARG	V	211	-41.625	79.323	11.72	1	126.96	N
ATOM	16027	CA	ARG	V	211	-41.965	79.837	10.349	1	138.48	C
ATOM	16028	CB	ARG	V	211	-42.547	81.276	10.343	1	151.06	C
ATOM	16029	CG	ARG	V	211	-43.055	81.779	8.992	1	160.65	C
ATOM	16030	CD	ARG	V	211	-43.929	83.019	9.128	1	168.16	C
ATOM	16031	NE	ARG	V	211	-44.652	83.333	7.887	1	172.8	N
ATOM	16032	CZ	ARG	V	211	-44.165	84.004	6.836	1	167.46	C
ATOM	16033	NH1	ARG	V	211	-42.913	84.468	6.824	1	171.44	N
ATOM	16034	NH2	ARG	V	211	-44.946	84.215	5.772	1	155.53	N
ATOM	16035	C	ARG	V	211	-40.9	79.627	9.243	1	138.58	C
ATOM	16036	O	ARG	V	211	-40.362	80.595	8.703	1	144.39	O
ATOM	16037	N	GLY	V	212	-40.589	78.384	8.88	1	129.16	N
ATOM	16038	CA	GLY	V	212	-41	77.168	9.586	1	125.02	C
ATOM	16039	C	GLY	V	212	-40.324	75.967	8.953	1	117.91	C
ATOM	16040	O	GLY	V	212	-40.974	74.991	8.595	1	99.93	O
ATOM	16041	N	GLU	V	213	-39	76.049	8.85	1	128.2	N
ATOM	16042	CA	GLU	V	213	-38.224	75.173	7.967	1	139.28	C
ATOM	16043	CB	GLU	V	213	-38.289	75.7	6.503	1	147.94	C
ATOM	16044	CG	GLU	V	213	-37.31	76.803	6.05	1	152.82	C
ATOM	16045	CD	GLU	V	213	-37.549	78.182	6.668	1	150.78	C
ATOM	16046	OE1	GLU	V	213	-37.416	79.196	5.941	1	136.73	O
ATOM	16047	OE2	GLU	V	213	-37.852	78.267	7.88	1	151.59	O
ATOM	16048	C	GLU	V	213	-36.775	74.912	8.435	1	140.8	C
ATOM	16049	O	GLU	V	213	-36.362	73.754	8.512	1	136.32	O
ATOM	16050	N	CYS	V	214	-36.025	75.972	8.753	1	145.38	N
ATOM	16051	CA	CYS	V	214	-34.617	75.871	9.149	1	152.5	C
ATOM	16052	CB	CYS	V	214	-33.786	76.905	8.385	1	152.12	C
ATOM	16053	SG	CYS	V	214	-31.995	76.673	8.502	1	160.29	S
ATOM	16054	C	CYS	V	214	-34.461	76.079	10.662	1	160.18	C
ATOM	16055	O	CYS	V	214	-35.37	76.575	11.341	1	143.69	O
ATOM	16056	OXT	CYS	V	214	-33.423	75.746	11.247	1	164.18	O

Column 1 - record name; Column 2 - atom serial number; Column 3 - atom name; Column 4 amino acid residue name; Column 5 - chain identifier; Column 6 - amino acid residue sequence number; Column 7 - orthogonal coordinates for X in Angstroms; Column 8 - orthogonal coordinates for Y in Angstroms; Column 9 - orthogonal coordinates for Z in Angstroms; Column 10 - occupancy; Column 11 - temperature factor; Column 12 - element symbol.

CLAIMS

1. An antibody or antigen-binding fragment thereof that binds human GDNF Family Receptor Alpha-like protein (GFRAL), which comprises:
   (a) a heavy chain variable region comprising a heavy chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO:46, a heavy chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:137, and a heavy chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO: 225; and
   (b) a light chain variable region comprising a light chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO: 301, a light chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO: 376, and a light chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO: 426.

2. The antibody or antigen-binding fragment thereof of claim 1, wherein
   (a) the heavy chain variable region is at least 90% identical to the amino acid sequence set forth in SEQ ID NO:3;
   (b) the light chain variable region that is at least 90% identical to the amino acid sequence set forth in SEQ ID NO:4; or
   (c) the heavy chain variable region is at least 90% identical to the amino acid sequence set forth in SEQ ID NO:3 and the light chain variable region is at least 90% identical to the amino acid sequence set forth in SEQ ID NO:4.

3. The antibody or antigen-binding fragment thereof of claim 1, wherein the heavy chain variable region comprises the amino acid sequence set forth in SEQ ID NO:3 and the light chain variable region comprises the amino acid sequence set forth in SEQ ID NO:4.

4. The antibody or antigen-binding fragment thereof of claim 1, wherein
   (a) the heavy chain variable region is at least 90% identical to the amino acid sequence set forth in SEQ ID NO:1982;
   (b) the light chain variable region is at least 90% identical to the amino acid sequence set forth in SEQ ID NO:1997; or

(c) the heavy chain variable region is at least 90% identical to the amino acid sequence set forth in SEQ ID NO:1982 and the light chain variable region is at least 90% identical to the amino acid sequence set forth in SEQ ID NO:1997.

5. The antibody or antigen-binding fragment thereof of claim 1, wherein the heavy chain variable region comprises the amino acid sequence set forth in SEQ ID NO:1982.

6. The antibody or antigen-binding fragment thereof of claim 1, wherein the light chain variable region comprises the amino acid sequence set forth in SEQ ID NO:1997.

7. The antibody or antigen-binding fragment thereof of claim 1, wherein the heavy chain variable region comprises the amino acid sequence set forth in SEQ ID NO:1982 and the light chain variable region comprises the amino acid sequence set forth in SEQ ID NO:1997.

8. An antibody or antigen-binding fragment thereof that binds human GFRAL, which comprises:

(a) a heavy chain variable region comprising a heavy chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO:56, a heavy chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:147, and a heavy chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:233, and a light chain variable region comprising a light chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO: 309, a light chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:382, and a light chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:432;

(b) a heavy chain variable region comprising a heavy chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO:86, a heavy chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:177, and a heavy chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:261, and a light chain variable region comprising a light chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO:337, a light chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:401, and a light chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:453;

(c) a heavy chain variable region comprising a heavy chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO: 91, a heavy chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:182, and a heavy chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:265, and a light chain variable region comprising a light chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO:341, a light chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:385, and a light chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:456;

(d) a heavy chain variable region comprising a heavy chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO: 95, a heavy chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:187, and a heavy chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:269, and a light chain variable region comprising a light chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO:345, a light chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:404, and a light chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:459;

(e) a heavy chain variable region comprising a heavy chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO: 124, a heavy chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:210, and a heavy chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:289, and a light chain variable region comprising a light chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO:365, a light chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:418, and a light chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:474; or

(f) a heavy chain variable region comprising a heavy chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO: 127, a heavy chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:215, and a heavy chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:293, and a light chain variable region comprising a light chain variable region CDR1 comprising the amino acid sequence set forth in SEQ ID NO:369, a light chain variable region CDR2 comprising the amino acid sequence set forth in SEQ ID NO:421,

and a light chain variable region CDR3 comprising the amino acid sequence set forth in SEQ ID NO:477.

9. The antibody or antigen-binding fragment thereof of any one of claims 1 to 8, which binds within domain 3 of human GFRAL.

10. The antibody or antigen-binding fragment thereof of any one of claims 1 to 8, which binds within amino acid residues 220-316 of SEQ ID NO:1797.

11. An antibody or antigen-binding fragment thereof of any one of claims 1 to 7, which-binds to one or more residues selected from the group consisting of: Met214, Pro216, Pro217, Gln290, Cys291, Thr292, Cys293, Arg294, Thr295, Ile296, Thr297, Gln298, Ser299, Glu301, Lys305, Gln308, His309, His312, and Ser315 of SEQ ID NO: 1797.

12. The antibody or antigen-binding fragment thereof of claim 11, which binds to at least Thr297, Gln298, and Ser299 of SEQ ID NO:1797.

13. The antibody or antigen-binding fragment thereof of any one of claims 1 to 12, which inhibits binding of GFRAL to RET.

14. The antibody or antigen-binding fragment thereof of any one of claims 1 to 13, which does not inhibit binding of GFRAL to GDF15.

15. The antibody or antigen-binding fragment thereof of any one of claims 1 or 4 to 8, which is a humanized antibody.

16. The antibody or antigen-binding fragment thereof of any one of claims 1 to 15, which is a chimeric antibody or a bispecific antibody.

17. The antibody or antigen-binding fragment thereof of any one of claims 1 to 16, which is a monoclonal antibody.

18. The antibody or antigen-binding fragment thereof of claim 17, which is an IgG1 antibody, an IgG2 antibody, or an IgG4 antibody.

19. The antibody or antigen-binding fragment thereof of claim 17, which is an IgG1 antibody.

20. The antibody or antigen-binding fragment thereof of claim 18 or claim 19, which comprises a kappa light chain.

21. The antibody or antigen-binding fragment thereof of any one of claims 1 to 17, wherein the antigen-binding fragment is an Fab, Fab', $F(ab')_2$, Fv, scFv, $(scFv)_2$, single chain antibody molecule, or dual variable region antibody.

22. The antibody or antigen-binding fragment thereof of any one of claims 1 to 21, which is conjugated or recombinantly fused to a diagnostic agent or a detectable agent.

23. An isolated polynucleotide encoding the antibody or antigen-binding fragment thereof of any one of claims 1 to 21.

24. A vector comprising the polynucleotide of claim 23.

25. A host cell comprising the polynucleotide of claim 23.

26. A host cell comprising the vector of claim 24.

27. A host cell that produces the antibody or antigen-binding fragment thereof of any one of claims 1 to 21.

28. A pharmaceutical composition comprising the antibody or antigen-binding fragment thereof of any one of claims 1 to 21 and a pharmaceutically acceptable carrier.

29. Use of the antibody or antigen-binding fragment thereof of any one of claims 1 to 21 in the manufacture of a medicament for treating involuntary body weight loss in a human subject, wherein the human subject: (i) has cachexia, (ii) has cancer, (iii) is undergoing treatment for cancer, and/or (iv) has anorexia nervosa.

30. Use of the antibody or antigen-binding fragment thereof of any one of claims 1 to 21 in the manufacture of a medicament for preventing involuntary body weight loss in a human subject, wherein the human subject: (i) has cachexia, (ii) has cancer, (iii) is undergoing treatment for cancer, and/or (iv) has anorexia nervosa.

31. Use of the antibody or antigen-binding fragment thereof of any one of claims 1 to 21 in the manufacture of a medicament for treating anorexia nervosa in a human subject.

32. The use of any one of claims 29 to 31, wherein the subject has an elevated level of GDF15.

33. The use of any one of claims 29 to 32, which comprises combination therapy with one or more additional therapeutic agents.